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South Gloucestershire Local Plan 2020 Phase 1 - Issues and Approaches Document (Nov 2020)

Sustainability Appraisal Report

Prepared by LUC
November 2020

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Client: South Gloucestershire Council

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1 Introduction

- 1.1 This Sustainability Appraisal Report has been prepared by LUC on behalf of South Gloucestershire Council as part of the integrated Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) of the South Gloucestershire Local Plan 2020.
- 1.2 This report relates to the South Gloucestershire Local Plan 2020 Phase 1 – Issues and Approaches consultation document and it should be read in conjunction with that document.

Status of the SA Scoping Report (October 2020)

- 1.3 The Council prepared a Scoping Report in autumn 2020, and this was published in October 2020 for a five week consultation period with the three statutory consultees. It was also made available on the Council's website. The responses received during this period are summarised in **Appendix 1** in this SA Report. This appendix also sets out how the responses received have been addressed and where they have informed the preparation of this SA Report.
- 1.4 The October 2020 Scoping Report has been republished at this stage to show the development of the SA to this stage of the Local Plan.

Geographical context for the South Gloucestershire Local Plan 2020

- 1.5 South Gloucestershire is located adjacent to the Severn Estuary and to the northeast of Bristol City. Bristol is accessible from the District via the M5, M32 and A38 as well as by rail and bus. The District has strong links to Bristol City given its proximity and considering that the North and East Fringes of the Bristol Urban Area lie within South Gloucestershire. To the north it is bordered by the local authority areas of Stroud and Cotswold, while Wiltshire and Bath and North East Somerset lie to the east and south east, respectively. A proportion of residents in the north and east of the District have functional links with places in Wiltshire and Bath and North East Somerset as well as Gloucestershire and South Wales. South Gloucestershire covers a total area of 49,694.56ha, with a population of 285,093, giving a population density of 574 people per square kilometre¹.
- 1.6 Almost two thirds (62.4%) of the District's population is of working age; of this 84.6% are economically active, which is slightly above the national average of 79.4%. The majority (22.7%) of people are in professional occupations, and just over half (50.9%) of the population are within Major Employment Groups 1-3 (Managers, Directors and Senior Officials; Professional Occupations; and Associate Professional and Technical)².
- 1.7 The eastern side of South Gloucestershire is in the Cotswolds Area of Outstanding Natural Beauty (AONB), which has been designated in recognition of its rich, diverse and high quality landscape. There are 22 Sites of Special Scientific Interest (SSSIs) within South Gloucestershire, including the Severn Estuary and Bishop's Hill Wood. The Severn Estuary is also a designated Ramsar Site, Special Area of Conservation (SAC), and Special Protection Area (SPA).³ The District also contains

¹ ONS (2020) Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland (Mid-2019). Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

² Nomis (Accessed October 2020) [Labour Market Profile - South Gloucestershire](#)

³ Defra (Accessed October 2020) [MagicMap](#)

non-statutory designations which contribute to local biodiversity, including 271 Sites of Nature Conservation Importance (SNCIs).

- 1.8 South Gloucestershire has historic ties to coal mining and industrial manufacturing. It is also home to relics of a number of medieval settlements. This provides the basis for a rich character as well as interestingly textured landscape interspersed with heritage and cultural assets, such as historic buildings, settlements, parks and gardens, and archaeological features⁴. There are 30 Conservation Areas in the District, designated for their special architectural or historic interest. The District also contains the following designated historic assets: 38 Scheduled Monuments; eight Registered Historic Parks and Gardens; one Registered Battlefield (part); and, 2,085 Listed Building entries (2% are Grade 1, 6% are Grade II* and 92% are Grade II).
- 1.9 Oldbury Nuclear Power Station is located adjacent to the tidal reservoir of the Severn Estuary in the north west of the District. The station ceased generation in 2012, and is currently being decommissioned. An on-going programme of decommissioning will continue through and beyond the Local Plan period. Transport infrastructure through the District allows for access between England and Wales. The Severn Rail Tunnel, the Severn Bridge, and the Second Severn Crossing are all located on the eastern bank of the River Severn within the District. These allow for rail and motorway access (via the M4 and M48 respectively) into Wales. The District is home to a number of major aircraft works in British Aerospace and Rolls-Royce, which are located in Filton.

Outline of the South Gloucestershire Local Plan 2020

- 1.10 The South Gloucestershire Local Plan 2020 is a development plan document (DPD) that will cover the whole administrative area of South Gloucestershire. The plan period will cover the 15-year period from the date of adoption. It is expected that the document will be adopted in 2023, and therefore it would cover the period from 2023 to 2038. The plan will eventually replace the adopted planning policies in the Core Strategy 2006 – 2027 (adopted in 2013), Policies, Sites and Places Plan (adopted in 2017) and where appropriate policies from the Joint Waste Core Strategy (adopted in 2011).
- 1.11 The Council has decided to review the Local Plan given the time that has elapsed since the Core Strategy and its spatial principles were examined. The decision also reflects the number of changes that have occurred both nationally (such as a change in national planning policy and guidance) and locally (including the Council's Climate Emergency declaration in July 2019).
- 1.12 Once adopted, the Local Plan 2020 will set out a new growth strategy for the South Gloucestershire area, describe where and how many new homes, jobs and infrastructure are to be provided as well as identify areas for protection over the 15-year plan period. As part of this, the Local Plan 2020 will need to identify sites and exact locations where the large scale housing and employment growth and supporting infrastructure should be located. It will also need to be reflective of the environmental sensitivities of the plan area and include an appropriate response to the declared Climate Emergency for South Gloucestershire. These decisions will be taken in light of and will need to be in conformity with the work being undertaken for the sub-regional Spatial Development Strategy (SDS) for the West of England Combined Authority (WECA) area, which will have implications for the distribution of development in the plan area.
- 1.13 The Local Plan 2020 Phase 1 consultation document is the Council's first stage of presenting the issues and priorities for South Gloucestershire and sets out a number of potential approaches that the Local Plan 2020 could take to address these. It therefore contains a number of strategic policy and spatial 'options' that have been appraised in this SA Report. Chapter 2 describes the specific sections of the Phase 1 document which have been subject to sustainability appraisal.
- 1.14 The main chapter headings of the Phase 1 document are as follows:

⁴ South Gloucestershire Council (2013) [South Gloucestershire Local Plan: Core Strategy 2006-2027](#)

1. **Introduction – Local Plan 2020** – Sets out the purposes of the Local Plan, contents of the Phase 1 document and what will be included in the next stage of new Local Plan.
 2. **Setting the scene – South Gloucestershire today** – Sets out the environmental, social and economic context for development in the District.
 3. **Local Plan 2020 Key Issues** – Sets out key issues for the plan area covering the following topic headings:
 - Climate change
 - Environment
 - Health and well-being
 - Exceptional places
 - Planning for urban and rural areas
 - Economy
 - Travel and transport
 - Supporting infrastructure
 4. **Potential priorities** – Sets out priorities that could define the approach in the new Local Plan.
 5. **Strategy – Where will new development go?** – Sets out potential strategies for locating growth.
 6. **Urban Lifestyles** – Sets out strategy for delivering growth in urban areas to achieve a high quality of life.
 7. **Creating Sustainable Rural Villages and Settlements** – Sets out potential growth strategies for South Gloucestershire’s rural areas.
 8. **Planning Policies** – Sets out new strategic and non-strategic planning policies.
- Appendix 1: Summary of Green Belt options** – Considers the potential for growth outside and within the Green Belt.
- Appendix 2: Working Draft Policies** – Sets out draft policies prepared to date as part of the preparation of the Local Plan.

Sustainability Appraisal and Strategic Environmental Assessment

- 1.15 Under the amended Planning and Compulsory Purchase Act 2004⁵, SA is mandatory for Development Plan Documents. For these documents it is also necessary to conduct an environmental assessment in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive (European Directive 2001/42/EC), as transposed into law in England by the SEA Regulations⁶. These Regulations remain in force despite the UK exiting the European Union in January 2020, therefore it is a legal requirement for the South Gloucestershire Local Plan 2020 to be subject to SA and SEA at all stages throughout its preparation.
- 1.16 The requirements to carry out SA and SEA are distinct, although it is possible to satisfy both using a single appraisal process (as advocated in the Government’s Planning Practice Guidance⁷),

⁵ The Planning and Compulsory Purchase Act 2004 was amended under the Environmental Assessments and Miscellaneous Planning (EU Exit) Regulations 2018.

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 Ministry of Housing, Communities and Local Government (last updated 1 October 2019) Planning Practice Guidance: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>

whereby users can comply with the requirements of the SEA Regulations through a single integrated SA process – this is the process that is being undertaken by South Gloucestershire Council. From here on, the term 'SA' should therefore be taken to mean 'SA incorporating the requirements of the SEA Regulations'.

1.17 The SA process comprises a number of stages as, shown below.

- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.
- Stage B: Developing and refining options and assessing effects.
- Stage C: Preparing the Sustainability Appraisal Report.
- Stage D: Consulting on the Local Plan and the SA Report.
- Stage E: Monitoring the significant effects of implementing the Local Plan.

Meeting the requirements of the SEA Regulations

1.18 **Table 1.1** signposts the relevant sections of the SA Report that are considered to meet the SEA Regulations requirements. This table will be included in the 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 addressed in this SA Report

SEA Regulation Requirements	Where covered in this SA 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.
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Chapter 3 and Appendix 2.
c) The environmental characteristics of areas likely to be significantly affected	Chapter 3 and Appendix 2.
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.	Chapter 3 and Appendix 2.
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	Chapter 3.
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.

SEA Regulation Requirements	Where covered in this SA report
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;	Chapters 4.
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;	Chapter 2.
i) a description of measures envisaged concerning monitoring in accordance with Reg. 17;	Chapter 5.
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 final version of the Environmental Report.
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.
<p>Consultation:</p> <ul style="list-style-type: none"> 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)) 	<ul style="list-style-type: none"> Focused consultation on the scope and level of detail of the SA carried out with the Environment Agency, Historic England, and Natural England for 5 weeks from 8 October 2020 and 12 November 2020.
<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Consultation on the Local Plan 2020 Phase 1 document is taking place between 27 November 2020 and 1 March 2021. The consultation documents are accompanied by this SA Report.
<ul style="list-style-type: none"> 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). 	N/A
<p>Taking the environmental report and the results of the consultations into account in decision-making (Reg. 16)</p>	

SEA Regulation Requirements	Where covered in this SA report
<p>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:</p> <ul style="list-style-type: none"> • 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 consultation 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 	<p>To be addressed after the new Local Plan is adopted in a separate SEA/SA Adoption Statement.</p>
<p>Monitoring of the significant environmental effects of the plan's or programme's implementation (Reg. 17)</p>	<p>To be addressed after the new Local Plan is adopted.</p>
<p>Quality assurance: environmental reports should be of a sufficient standard to meet the requirements of the SEA Regulations.</p>	<p>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.</p>

- 1.19 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. Where there are data gaps in the baseline and forthcoming reports, these are highlighted in the text. 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 are published.

Structure of this report

- 1.20 This section has introduced the SA process for the new South Gloucestershire Local Plan. The remainder of the report is structured into the following sections:
- Chapter 2: **Methodology** describes the approach that is being taken to the SA of the new Local Plan.
 - Chapter 3: **Sustainability Context for Development in South Gloucestershire** describes the relationship between the new South Gloucestershire Local Plan and other relevant plans, policies and programmes; summarises the social, economic and environmental characteristics of the District and identifies the key sustainability issues.
 - Chapter 4: **Sustainability Appraisal Findings for the Policy Options** summarises the SA findings for the reasonable alternative policy options that were considered in the Local Plan 2020 Phase 1 document.
 - Chapter 5: **Monitoring** describes the approach that should be taken to monitoring the likely significant effects of the new Local Plan and proposes monitoring indicators.
 - Chapter 6: **Conclusions** summarises the key findings from the SA of the Phase 1 document of the Local Plan and describes the next steps to be undertaken.
 - Appendix 1 – **Scoping consultation comments** that were received in relation to the Scoping Report and explains how each one has been addressed.
 - Appendix 2 – **Baseline information** for South Gloucestershire.

- Appendix 3 – **Review of relevant plans, policies and programmes.**
- Appendix 4 - **Effects criteria for site appraisal work** presents the assumptions to be used during the sustainability appraisal of site options later in the SA process.

2 Methodology

- 2.1 In addition to complying with legal requirements, the approach being taken for the SA of the South Gloucestershire Local Plan 2020 is based on current best practice and the guidance on SA/SEA set out in the National Planning Practice Guidance, which involves carrying out SA as an integral part of the plan-making process. **Table 2.1** below sets out the main stages of the plan-making process and shows how these correspond to the SA process.

Table 2.1 Corresponding stages in plan making and SA

Local Plan Step 1: Evidence Gathering and engagement
SA stages and tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
<ul style="list-style-type: none"> • 1: Identifying other relevant policies, plans and programmes, and sustainability objectives • 2: Collecting baseline information • 3: Identifying sustainability issues and problems • 4: Developing the SA framework • 5: Consulting on the scope of the SA
Local Plan Step 2: Production
SA stages and tasks
Stage B: Developing and refining options and assessing effects
<ul style="list-style-type: none"> • 1: Testing the Local Plan objectives against the SA framework • 2: Developing the Local Plan options • 3: Evaluating the effects of the Local Plan • 4: Considering ways of mitigating adverse effects and maximising beneficial effects • 5: Proposing measures to monitor the significant effects of implementing the Local Plan
Stage C: Preparing the Sustainability Appraisal Report
<ul style="list-style-type: none"> • 1: Preparing the SA Report
Stage D: Seek representations on the Local Plan and the Sustainability Appraisal Report
<ul style="list-style-type: none"> • 1: Public participation on Local Plan and the SA Report • 2(i): Appraising significant changes
Local Plan Step 3: Examination
SA stages and tasks
<ul style="list-style-type: none"> • 2(ii): Appraising significant changes resulting from representations
Local Plan Step 4 & 5: Adoption and Monitoring
SA stages and tasks
<ul style="list-style-type: none"> • 3: Making decisions and providing information
Stage E: Monitoring the significant effects of implementing the Local Plan
<ul style="list-style-type: none"> • 1: Finalising aims and methods for monitoring • 2: Responding to adverse effects

- 2.2 The sections below describe the approach that has been taken to the SA of the South Gloucestershire Local Plan 2020 to date and provides information on the subsequent stages of the process.

Stage A: Scoping

- 2.1 The SA process began in October 2020 with the production by the Council of a Scoping Report for the new Local Plan.
- 2.2 The Scoping stage of the SA involves understanding the social, economic and environmental baseline for the plan area as well as the sustainability policy context and key sustainability issues. The Scoping Report presented the outputs of the following tasks:
- Policies, plans and programmes of relevance to the new Local Plan were identified and the relationships between them and the new Local Plan and the SA were considered, enabling any potential synergies to be exploited and any potential inconsistencies and incompatibilities to be identified and addressed.
 - Baseline information was collected on environmental, social and economic issues in South Gloucestershire. This baseline information provides the basis for predicting and monitoring the likely effects of options for policies and site allocations and helps to identify alternative ways of dealing with any adverse effects identified. The SEA Regulations require assessment of effects in relation to the following 'SEA topics': biodiversity, population, 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, access to services and facilities, deprivation and inequality, education and economic development.
 - Key sustainability issues for South Gloucestershire were identified making use of the analysis of the baseline information collected. Alongside the sustainability issues the likely evolution of these without the Local Plan 2020 was also presented.
 - A Sustainability Appraisal framework was prepared, setting out the SA objectives against which options and subsequently policies would be appraised. South Gloucestershire's previous Local Plan Sustainability Appraisals provided the starting point for the development the SA objectives for the Local Plan 2020. Those SA objectives were reviewed in light of the review of the policies, plans and programmes and baseline information for the plan area. The SA framework provides a way in which the sustainability impacts of implementing a plan can be described, analysed and compared. The SA objectives define the long-term aspirations of the District with regard to social, economic and environmental considerations. During the SA, the performances of the plan options (and later, policies) are assessed against these SA objectives.
- 2.3 Public and stakeholder participation is an important part 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. Furthermore, 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 SA Scoping Report was published in October for a five week consultation period with the three statutory consultees (Natural England, the Environment Agency and Historic England).
- 2.4 **Appendix 1** of this SA Report lists the comments that were received during the Scoping consultation and describes how each one has been addressed. In light of the comments received some amendments have been made to the review of plans, policies and programmes, the baseline information and the key sustainability issues.
- 2.5 Updated versions of the review of plans, policies and programmes and the baseline information are presented in **Chapter 3** and **Appendices 2** and **3** of this SA Report. The review of plans, policies and programmes and the baseline information will continue to be updated as appropriate throughout the SA process to ensure that they remain current. The SA framework is presented in **Table 3.2** in **Chapter 3**.

SA Stage B: Developing and refining options and assessing effects

- 2.6 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.
- 2.7 Regulation 12 (2) of the SEA Regulations requires that:
"The (environmental or SA) 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."
- 2.8 Schedule 2 (h) of the SEA Regulations requires that the Environmental Report includes a description of:
"(h) an outline of the reasons for selecting the alternatives dealt with"
- 2.9 Any alternatives considered for the plan need to be 'reasonable'. This implies that 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 National Planning Policy Framework) or site options that are unavailable or undeliverable.
- 2.10 The SA findings are not the only factors taken into account when selecting options to take forward in a plan. Indeed, there will often be an equal number of positive or negative effects identified for each option, such that it is not possible to 'rank' them based on sustainability performance in order to select an option. Factors such as public opinion, deliverability and conformity with national policy will also be taken into account by plan-makers when selecting options for their plan.
- 2.11 **Table 2.2** describes the specific sections of the Phase 1 document which have been subject to sustainability appraisal and a brief overview of them.

Table 2.2 Sections of the South Gloucestershire Local Plan 2020 Phase 1 document that have been subject to SA

Section	Description
Nine Potential Plan Priorities (Section 4).	Potential priorities that address the range of issues that face the future planning of South Gloucestershire. These priorities will inform the way growth is planned for and future planning policies.
Five Building Blocks for the Growth Strategy (Section 5): <ul style="list-style-type: none"> • 1: Existing Urban Areas • 2: Expanding our main urban areas through small or large urban extensions • 3: Growth around our market towns • 4: Rural villages and settlements • 5: Large scale free standing new settlements 	The potential building blocks and initial guiding principles, that are being considered for use to develop choices and options as the Council explores how large numbers of new homes and jobs are to be provided in the plan area, while balancing the need to protect and enhance South Gloucestershire's natural and built environment.
Six Initial Guiding Principles for the Growth Strategy (Section 5).	

Section	Description
<p>Options for Urban Lifestyles locations (Section 6):</p> <ul style="list-style-type: none"> • Bristol North Fringe (Seven locations). • Bristol East Fringe (Eight locations). • Yate • Thornbury <p>Development at these locations would be guided by the Urban Lifestyles approach.</p>	<p>An emerging approach to development in urban areas, to improve the quality of life and the level of development on urban and brownfield sites.</p>
<p>Options for rural areas to be investigated for growth (Section 7):</p> <ul style="list-style-type: none"> • Villages and settlements with a defined settlement boundary, or recognised collections of dwellings. • Areas where sites have been identified through the previous calls for sites up to 200 metres from the edges of our urban areas. <p>Development to be provided in line with the definition of 'small or medium-scale growth' included.</p>	<p>How the Council might investigate and approach planning for an appropriate level of small and medium-scale sustainable growth in the rural villages and settlements.</p>
<p>Two options for rural communities that should be investigated for some level of growth in the context of the Green Belt (Section 7), two options are explored in Appendix 1:</p> <ul style="list-style-type: none"> • Investigate the potential for an appropriate level of small to medium-scale growth in villages and settlements outside of the Green Belt. • Investigate the potential for an appropriate level of small to medium-scale growth in villages and settlements both outside the Green Belt and in the Green Belt. 	
<p>Proposed Strategic Policies (Appendix 2):</p> <ul style="list-style-type: none"> • Climate Change Mitigation and Adaptation • Creating well-designed places • Nationally Significant Infrastructure Projects (NSIPs) and related development 	<p>The range and scope of policies the Council may include in the Local Plan 2020.</p> <p>Early drafts of a limited number of policies have been presented.</p>
<p>Proposed Non-Strategic Policies (Appendix 2):</p> <ul style="list-style-type: none"> • Energy Management in New Development (two options - Net zero carbon from regulated and/or unregulated energy use) • Renewable and Low Carbon Energy System • Parking Requirements, including Electric Vehicles • Oldbury - Nuclear New Build • Oldbury A station – Decommissioning • Radioactive Waste 	

2.12 The following sections describe how options have been identified and how the appraisal of options has fed into the development of the South Gloucestershire Local Plan 2020.

Identification and appraisal of policy options

2.13 The Phase 1 document is set out as the starting point for discussing the issues, priorities and potential approaches for the South Gloucestershire new Local Plan. The document highlights the issues, challenges and opportunities presented in planning the future of the plan area. It acts as the beginnings of the process to consult on whether the correct issues and priorities have been identified for the new Local Plan to address.

2.14 The high level approaches and principles for development are included alongside some early draft policies which address strategic and non-strategic issues for South Gloucestershire.

- 2.15 The next stage of preparing the new Local Plan will include an increased level of detail for the approaches, places and policies on:
- The overall growth number of new homes or jobs it needs to plan for – this will be established by the sub-regional SDS.
 - The potential choices and locations for large scale growth of jobs, homes, facilities and services. In future stages, consultation documents will set out options and locations for where growth could be accommodated.
 - The potential site allocations in urban or rural areas. Future consultation documents will need to become more place orientated, present potential sites in individual communities and explore the levels of growth appropriate in different places.
 - Drafts of all new planning policies.
- 2.16 Site options have not been included in the Phase 1 consultation document. The Council undertook a Call for Sites between July and October 2020. The sites submitted through this exercise will be assessed through the HELAA process and any 'unreasonable' site options discounted. Following on from this, reasonable alternative options will be appraised in the next version of the SA.
- 2.17 The policy options were subject to SA by LUC during autumn 2020. The SA findings for the policy options are now presented in Chapter 4 of this SA Report.

SA Stage C: Preparing the Sustainability Appraisal report

- 2.18 This SA Report describes the process that has been undertaken to date in carrying out the SA of the South Gloucestershire Local Plan 2020.
- 2.19 It sets out the findings of the appraisal of policy options, and the emerging strategy policy approaches, highlighting any likely significant effects (both positive and negative, and taking into account the likely secondary, cumulative, synergistic, short, medium and long-term and permanent and temporary effects). It also describes the Council's reasons for selecting or rejecting certain options during the preparation of the South Gloucestershire Local Plan 2020. Recommendations for improvements and clarifications that may help to maximise the benefits and mitigate negative effects of the options have been included alongside the appraisal of their expected effects.

SA Stage D: Consultation on the South Gloucestershire Local Plan 2020 and this SA Report

- 2.20 Information about consultation on the SA that has already taken place at earlier stages of plan-making has been provided above.
- 2.21 South Gloucestershire Council is inviting comments on the Local Plan 2020 Phase 1 consultation document and this SA Report. Both documents are being published on the Council's website for consultation between 27 November 2020 and 1 March 2021. Consultation comments on this SA Report will be taken into account in the subsequent stage of the SA.

SA Stage E: Monitoring implementation of the new Local Plan

- 2.22 Early suggestions for monitoring indicators that could be used to monitor the likely significant social, environmental and economic effects of implementing the South Gloucestershire Local Plan 2020 are presented in **Chapter 5**. These indicators will need to be kept under review and

updated at the subsequent stages of the SA to ensure they reflect the most up to date indicators and data collection sources available at the time the Local Plan is adopted.

Appraisal methodology

- 2.23 The reasonable alternative policy options for the Local Plan have been appraised against the SA objectives in the SA framework (see **Table 3.2 in Chapter 3**), with symbols being attributed to each option or policy to indicate its likely effects on each SA objective as follows:

Figure 2.1: Key to symbols and colour coding used in the SA of the South Gloucestershire Local Plan 2020

++	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

- 2.24 Where a potential positive or negative effect is uncertain, a question mark was added to the relevant symbol (e.g. +? or -?) and the symbol has been colour coded as per the potential positive, negligible or negative effect (e.g. green, yellow, orange, etc.).
- 2.25 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 shown above. 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. However, effects identified are relative to the scale of proposals under consideration.
- 2.26 Mixed effects have only been presented where directly opposing effects (i.e. positive and negative) have been identified through the appraisal (e.g. +/-, ++/-, --/+ and ++/--). For some SA objectives, it is possible that a policy or site might have a minor positive effect in relation to one aspect of the policy and a significant positive effect in relation to another aspect (giving a symbol of +/++). However, in these instances, only the most significant effect is shown in the appraisal tables. Similarly, if a policy or site could have a minor and significant negative effect (-/--) for the same SA objective, only the significant negative effect is shown in the appraisal tables. The justification text relating to the appraisal describes where the various elements of the policy or site being appraised might have potential to result in effects of differing magnitude.

2.27 The SA findings for the Local Plan policy options are described in **Chapter 4**.

Effects criteria for the SA

- 2.28 The SA framework presented in the SA Scoping Report included example Effects Criteria (see the fourth and fifth columns of Table 5a in that report). These show how sustainability effects, and in particular significant effects are to be identified for potential site options that are considered for allocation.
- 2.29 SA inevitably relies on an element of subjective judgement. However, the effects criteria will help to ensure consistency in the appraisal of the site options. These criteria set out clear parameters within which certain SA effects would be identified, based on factors such as the distance of site options from features such as biodiversity designations, public transport links and areas of high landscape sensitivity. It should be noted that the effects criteria to be applied to site options do not correlate exactly with the use of the SA framework to appraise policy options for the Local Plan. In some instances, the appraisal of policy options reflects other factors which are of relevance in relation to the achievement of an SA objective but which falls outside of the scope of the site assessment effects criteria.
- 2.30 As site options and allocations will only be considered at a later stage in the plan preparation process and have not been considered for the Local Plan 2020 Phase 1 document the criteria have not been used for the appraisal work included in this SA Report. The criteria will be used to guide the appraisal of site options later in the SA process and are included in **Appendix 4** of this SA Report. Consultation comments received on the Effects Criteria as part of the consultation on the SA Scoping Report (see **Appendix 1**) are reflected in criteria using strikethrough and underlined text.

Difficulties encountered and data limitations

- 2.31 It is a requirement of the SEA Regulations that consideration is given to any data limitations or other difficulties that are encountered during the SA process.
- 2.32 During the appraisal of the policy options the fact that many of the options had not yet been worked up in detail (comprising only suggested approaches that might be taken forward) meant that at times it was difficult to assess in detail the likely effects of the options on each SA objective. Once draft policies are worked up in more detail for these options (i.e. at the next stage of the Local Plan preparation) it will be possible to draw more certain conclusions about their likely effects.
- 2.33 Furthermore, in terms of data limitations some of the data which is available to set out the baseline situation for the District is based on the reporting of 2011 census. This data allows for trends in national and District performance to be reported upon, however it is recognised that data is now relatively old considering the timings of the national census.
- 2.34 Where data limitations have been identified, if relevant updated sources become available at a later stage of the SA process, they will be used to update the baseline evidence for the appraisal work.

3 Sustainability Context for development in South Gloucestershire

3.1 Schedule 2 of the SEA Regulations requires:

(a) *“an outline of the contents and 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”*

3.2 An outline of the Plan is provided in **Chapter 1**. The other reporting requirements are met in this chapter.

Relationship with other relevant plans and policies

3.3 The Local Plan is not prepared in isolation and must be in conformity with a range of international and national plans and programmes. In addition, the Local Plan comprises any ‘made’ Neighbourhood Plans within the District⁸ and is supported by other documents such as the Statement of Community Involvement, Local Development Scheme (referred to locally as the Local Plan Delivery Programme), Authority Monitoring Report and Supplementary Planning Documents.

Policy context

3.4 This section sets out the policy context and environmental and sustainability objectives within which the Local Plan must operate in relation to the various sustainability themes covered by the SA. This context informs consideration of what constitute reasonable alternative policy options for the Plan as well as the framework of sustainability objectives against which the plan has been appraised. A more detailed review of the relevant documents is provided by topic heading in **Appendix 3**.

3.5 It should be noted that the policy context is inherently uncertain as the current framework outlined here is likely to change in response to a number of key factors:

- Brexit - Following the United Kingdom’s (UK) departure from the European Union (EU) on 31 January 2020, it entered a transition period which ends on 31 December 2020. Until that date all EU law across all policy areas continues to apply the UK. After that date, directly applicable EU law no longer applies to the UK and the UK is free to repeal EU law that has been transposed into UK law.
- COVID-19 – The COVID-19 pandemic has led to far-reaching changes to society in the UK and around the world. Which of these changes will continue in the long term is unknown and will depend on a variety of factors, notably progress in developing a vaccine to combat the disease. Potential implications for planning and development include Government measures to re-start the economy via support for housebuilding and infrastructure development;

⁸ Presently there are no made Neighbourhood Plans in South Gloucestershire although Charfield Neighbourhood Plan Group have submitted the Charfield Neighbourhood Plan to South Gloucestershire Council and it is currently at examination.

changes to permitted development rights; increased remote working and reduced commuting and related congestion and air pollution; increased prioritisation of walking and cycling over public transport; and increasing pressure to ensure satisfactory living standards are set and enforced.

- Planning for the Future White Paper – The August 2020 consultation sets out proposals for the reform of the planning system in England, covering plan-making, development management, development contributions, and other related policy proposals. Potential implications include reducing the period of a Local Plan period to 10 years; a move towards a zonal planning system with areas of England allocated as either Growth Areas; Renewal Areas or Protected Area; and the abolition of Community Infrastructure Levy (CIL) and Section 106.

3.6 It is also possible that UK and sub-national climate change policy may change as public awareness and prioritisation of the threat of climate change grows, as illustrated by the increasing number of local authorities, including South Gloucestershire, that have declared a climate emergency.

International policy context

3.7 At the international level, there is a wide range of plans and programmes which act to inform and shape national level legislation. Planning policy in England at a national and local level (i.e. the NPPF and Local Plan) should be aware of and in conformity with the relevant legislation. The main sustainability objectives of international plans and programmes which are of most relevance for the Local Plan and SA are provided in **Appendix 3**.

National policy context

3.8 There is an extensive range of national policies, plans and programmes that are of relevance to the Local Plan preparation and SA process. A pragmatic and proportionate approach has been taken with regards to the identification of key national policies, plans and programmes, focusing on those that are of most relevance. A summary of the main objectives of the National Planning Policy Framework and Planning Practice Guidance of relevance to the Local Plan and SA is provided below. In addition, the main sustainability objectives of other national plans and programmes which are of most relevance for the Local Plan and SA are provided in **Appendix 3**.

The National Planning Policy Framework and Planning Practice Guidance

3.9 The National Planning Policy Framework (NPPF)⁹ is the overarching planning framework which provides national planning policy and principles for the planning system in England. The Local Plan must be consistent with the requirements of the NPPF, which states:

"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."

3.10 The National Planning Practice Guidance (PPG)¹⁰ sets out the Government's planning policies for England and how these are expected to be applied. Sitting alongside the NPPF, it provides an on-line resource that is updated on a regular basis for the benefit of planning practitioners.

3.11 The overarching nature of the NPPF means that its implications for the SA relate to multiple topics which this report seeks to address. Considering the importance of the NPPF to the English planning system, the relevance of the Framework and its implications for the plan making process and the SA is provided in more detail below.

3.12 **Climate change adaption and mitigation, energy efficiency and waste minimisation** measures for new development including through the promotion of renewable energy schemes are also supported through the NPPF. One of the core planning principles is to "support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal

⁹ Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework

¹⁰ Ministry of Housing, Communities and Local Government (2019) Planning Practice Guidance

change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.” Furthermore, local planning authorities should adopt a proactive approach to mitigate and adapt to climate change, taking full account of flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures.

- 3.13 Although Local Plans can no longer require levels of the Code for Sustainable Homes, they can promote the Home Quality Mark to support residents in understanding the quality and performance of new build homes and can also set targets for developers to provide for a given percentage of energy used by a new development to come from on-site renewable or low carbon technologies. Local Plan policies can further support the development of renewable energy technologies where appropriate, in line with climate change mitigation strategies and targets.
- 3.14 The Local Plan can also identify areas where development would have lesser impacts in terms of its contribution to climate change (by limiting the need for site residents and users to travel, for example) or vulnerability to climate change. The SA can consider the contribution the alternatives make in terms of contribution to climate change mitigation as well as climate change adaptation.
- 3.15 In relation to **health and wellbeing**, healthy, inclusive and safe places which promote social integration, are safe and accessible, and enable and support healthy lifestyles are supported through the Framework.
- 3.16 One of the core planning principles is to “take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community”. It is identified in the document that “a network of high quality open spaces and opportunities for sport and recreation is important for the health and well-being of communities”. Furthermore, the retention and enhancement of local services and community facilities in villages, such as local shops, meeting places, sports, cultural venues and places of worship is supported. Importantly, Local plans should also “contain policies to optimise the use of land in their area and meet as much of the identified need for housing as possible”.
- 3.17 The delivery of new housing is considered to support local communities by meeting housing needs and addressing shortages. The Local Plan can have a significant influence on addressing inequalities including those relating to health and will need to consider the appropriate siting of new development, particularly large development sites that are likely to include new service and facility provisions. The Local Plan can ensure that new development is located in areas which can improve accessibility for existing as well as new residents and ensure that future development does not exacerbate existing inequalities. The SA process can support the identification and refinement of options that can contribute to addressing deprivation and support the development of policy approaches that cumulatively improve the wellbeing of local communities.
- 3.18 The NPPF sets out the approach Local Plan should take in relation to **biodiversity** states that Plans should “identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation”. Plans should also promote conservation, restoration and enhancement of priority habitats and species, ecological networks and support measurable for multi-functional areas and net gains for biodiversity. A strategic approach to maintaining and enhancing networks of habitats and green infrastructure is to be supported through planning policies.
- 3.19 The Local Plan should seek to maximise any opportunities arising for local economies, communities and health as well as biodiversity. This should be inclusive of approaches which are supportive of enhancing the connectivity of green infrastructure and promoting the achievement of biodiversity net gain. The SA process should support the identification and maximisation of

potential benefits through the consideration of alternatives and assessment of both negative and positive significant effects.

- 3.20 In relation to **landscape**, the NPPF includes sets the planning principles of recognising the intrinsic beauty and character of the countryside as well as protecting and enhancing valued landscapes. Reference is included with regards this purpose to National Parks, The Broads and Areas of Outstanding Natural Beauty.
- 3.21 The Local Plan should be supportive of an approach to development which would protect the landscape character of the District with particular consideration for the special character of the Cotswolds AONB. Where appropriate it should also seek to protect the individual identities of the District's settlements, with regard for the potential coalescence. The SA should identify those alternatives which contribute positively to landscape character, while avoiding the most significant impacts on the setting of the AONB.
- 3.22 The NPPF states that in relation to the **historic environment**, plans should "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". Where appropriate, plans should seek to sustain and enhance the significance of heritage assets and local character and distinctiveness, while viable uses of assets should be considered. Plans should take into account the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring. They should also consider the contribution the historic environment can make to the character of a place.
- 3.23 The Local Plan can offer enhanced protection for designated and non-designated heritage assets and their settings, including any potential archaeological finds in line with heritage protection and enhancement plans. The SA has a role to play by identifying which alternatives could offer opportunities to secure the protection and enhancement of assets as well as those which might have significant impacts in terms of their appropriate use and setting.
- 3.24 The NPPF states that new and existing development should be prevented from contributing to, being put at an unacceptable risk from, or being adversely affected by, pollutions including **water pollution and air quality**. Inappropriate development in areas at risk of flooding should be avoided. Plans should take a proactive approach to mitigating and adapting to climate change, taking into account implications for water supply. Furthermore, strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision infrastructure for water supply and wastewater.
- 3.25 The Local Plan presents an opportunity to consider incorporating targets for water efficiency and the level of water consumption and grey water recycling in any new development. The Local Plan also can ensure that development is sited away from areas of high flood probability and that appropriate water drainage is in place in line with flood risk strategies. The SA process should seek to identify and address potential negative effects on the water environment, including implications relating to wastewater.
- 3.26 The NPPF states that planning system should protect and enhance **soils** in a manner commensurate with their statutory status or quality, while also encouraging the reuse of **previously developed land**. It also sets out Green Belt policy to prevent urban sprawl by keeping land permanently open and defines the five purposes the preservation of Green Belt land should serve.
- 3.27 The Local Plan can seek to ensure the appropriate protection of soil quality, including best and most versatile agricultural land. Further to this the Local Plan should ensure that new development does not conflict with current mineral operations as well as long-term mineral resource plans. The review of Green Belt can only be made through the Local Plan Review process. The SA process should inform the development of the Local Plan by helping to identify alternatives which would avoid the areas of highest soil quality and best and most versatile agricultural land, as well as those which would promote the use of brownfield land. Green Belt is a planning consideration and is not a specific sustainability issue required to be addressed through SA. Green Belt land can have value, for example in terms of landscape character, biodiversity or

recreation, but the designation of Green Belt land does not necessarily mean alignment with these qualities. However, the Council has considered it helpful within the SA process to appraise the contribution various options for the Local Plan can make in terms of the Green Belt in the District.

- 3.28 The Framework sets out that in terms of **economic growth** the role of the planning system is to contribute towards building a “strong, responsive and competitive economy” by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation. There is also a requirement for the planning system to identify and coordinate the provision of infrastructure. This includes support for the incorporation of high quality **digital infrastructure**. Furthermore, planning policies should address the specific locational requirements of different sectors.
- 3.29 Local planning authorities should incorporate planning policies which “support the role that town centres play at the heart of local communities, by taking a positive approach to their growth, management and adaptation”. Local Plans are required to “set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration.”
- 3.30 The Local Plan should seek to maximise the potential benefits of nearby strategic growth, whilst at the same time ensuring the vitality and viability of smaller localised economies. Ensuring that local town centres and settlement services and facilities are maintained and enhanced is also important and will also provide support for local communities. It should also give consideration to ensuring connectivity to a suitable quality of digital infrastructure. The SA process can support the development of the Local Plan to ensure that its policies are considerate of impacts on the economy in South Gloucestershire. It should also consider the potential to help ensure that digital connectivity for all is achieved. The process can also be used to demonstrate that impacts on the viability of town centres in the area and surrounding areas have been considered.
- 3.31 The NPPF encourages local planning authorities to consider **transport** issues from the earliest stages of plan making so that: opportunities to promote sustainable transport are identified and pursued; the environmental impacts of traffic and transport infrastructure can be identified and assessed; and opportunities from existing or proposed transport infrastructure and changing transport technology and usage are realised. The Framework also states that the planning system should actively manage growth patterns in support of these objectives.
- 3.32 Growth will inevitably increase traffic on the roads which also has implications for air quality and climate change, and the Local Plan and SA process can seek to minimise effects of this nature. This can be achieved through appropriately siting new development, identifying where mitigation may be needed and requiring the necessary transport provisions and contributions from new development. The Local Plan as supported by the SA should seek to identify opportunities to maximise the potential for alternative modes of transport to the car and reduce the need to travel, therefore reducing emissions, through the consideration of alternatives and assessment of significant effects. This includes potential opportunities that may arise as a result of the delivery of new infrastructure.

Other national policies, plans and programmes

- 3.33 Numerous other policies, plans and programmes at a national level are of relevance to preparation of the Local Plan and the SA. Unlike the NPPF, most of the documents are focussed on a specific topic area which the SA will consider. There will be some overlap between SA topics covered by these plans and programmes where those documents contain more overarching objectives. However, the plans and programmes considered of most relevance for the SA have been grouped by the topics they most directly seek to address, and the text below each topic heading summarise the implications of the national PPPs (including the NPPF) for the Local Plan and SA.

Climate change adaption and mitigation, energy efficiency and waste minimisation

- 3.34 The relevant national PPPs under this topic are:

- Defra, The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate (2018).
- Department for Transport, Decarbonising Transport: Setting the Challenge (2020).
- Defra and the Environment Agency, Understanding the risks, empowering communities, building resilience: The National Flood and Coastal Erosion Risk Management Strategy for England (2011).
- Ministry of Housing, Communities and Local Government, National Planning Policy for Waste (NPPW) (2014).
- Defra, Waste Management Plan for England (2013).
- HM Government, The Clean Growth Strategy (2017).

3.35 **Implications for the Local Plan and SA:** The Local Plan should consider setting out policies to achieve climate change and adaptation while also encouraging development which would help to minimise carbon emissions. This can be done through siting development allocations in areas where sustainable transport patterns can be best achieved and encouraging development to make use of more sustainable construction methods and sources of energy. The Local Plan should also contain policies to encourage appropriate use of SuDS and handling of waste in line with the waste hierarchy.

3.36 The SA can test policy options in relation to the contributions they make towards these aims. When they are considered, it should also appraise the contribution individual site options can make to limiting carbon emissions (including through the uptake of more sustainable sources of energy). Sites should also be considered in terms of the impact they will have in terms of promoting climate change adaptation as well as reducing flood risk and the amount of waste that goes to landfill.

Health and well-being

3.37 The relevant national PPPs under this topic are:

- Public Health England, PHE Strategy 2020-25.
- DCLG Housing White Paper, Laying the Foundations: Fixing our broken housing market (2017).
- HM Government, Laying the foundations: housing strategy for England (2011).
- Ministry of Housing, Communities and Local Government, Planning Policy for Traveller Sites (2015).

3.38 **Implications for the Local Plan and SA:** The Local Plan, in conjunction with the Infrastructure Delivery Plan, needs to consider the need for infrastructure as this has a significant impact on the environment and it should be prepared to ensure that the population has access to sustainable low carbon infrastructure and services and facilities and that there is sufficient capacity within them to serve the increased population. This should include healthcare, education and open space. Development allocations should be located in areas where facilities are most accessible, issues of overcapacity would be less likely to result, and active modes of travel might be promoted. Policies in the Local Plan can also help to facilitate the supply of healthy local food. The provision of an appropriate level of housing over the plan period will help address issues of deprivation in terms of access to decent housing in the plan area. The provision of new housing should be considerate of local needs with regards to housing size, tenure and type, including the needs of Travellers.

3.39 Policy options considered for the Local Plan can be tested through the SA in relation to the contributions they make towards these aims. When they are considered, the SA should also appraise the contribution individual site options can make to deprivation and health and wellbeing. This should be considered through the site's ability to support the delivery of new infrastructure and facilities which might benefit public health, as well as accessibility to existing

infrastructure and facilities of this nature. It may be necessary to consider the capacity of existing facilities when considering individual site options. Consideration should also be given to the capacity of sites to deliver new homes, including affordable homes.

Environment (biodiversity/geodiversity, landscape and soils)

3.40 The relevant national PPPs under this topic are:

- HM Government, The Environment Bill (2020).
- Defra, A Green Future: Our 25 Year Plan to Improve the Environment (2018).
- Defra, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011).
- Defra, Biodiversity offsetting in England Green Paper (2013).
- Defra, Safeguarding our Soils – A Strategy for England (2009).

3.41 **Implications for the Local Plan and SA:** The Local Plan should be prepared to limit the potential for adverse impacts on biodiversity and geodiversity as well as important landscapes (including those that are designated) and higher value soils. The plan area includes part of the Cotswolds AONB and is bordered by or contains a number of internationally and nationally important biodiversity sites. These will need to be protected through planning policy. The plan should also take into account non-designated landscapes identified to be particularly sensitive to development and non-designated habitats which form part of wider ecological network. The plan also presents opportunities to promote the achievement of net gain in biodiversity. It can also be used to encourage the re-use of brownfield land and protect more valuable agricultural soils from development. Benefits may be achieved by directing development to less sensitive locations. The allocation of new sites for development and updated planning policy can also be used to achieve habitat connectivity through the provision of new green infrastructure.

3.42 It will be role of the SA to test the policy options in terms of the effect they will have on biodiversity sites and habitats as well as value landscapes. The effects of these options in relation to promoting the development of brownfield land and limiting the loss of valuable agricultural soils should also be appraised. When identifying site options, these should be considered in relation to these issues also, making use of the findings of the HRA and landscape character assessment work where appropriate.

Historic environment

3.43 The relevant national PPPs under this topic are:

- The Heritage Alliance, Heritage 2020.
- Historic England, Corporate Plan 2018-2021.
- Historic England, Sustainability Appraisal and Strategy Environmental Assessment: Historic England Advice Note 8 (2016).

3.44 **Implications for the Local Plan and SA:** The potential impact of new development on the historic environment, including local character as well as designated and non-designated heritage assets and their respective settings should also inform the preparation of the Local Plan. Particular regard may be given to protecting heritage assets which have been identified as being 'at risk' (both at the national and local level). Policies should be included to address these issues and site options should be considered with regard to the potential for related issues.

3.45 The SA should appraise both policy and site options (when being considered) in terms of the potential for effects on the historic environment. It should identify those locations at which development would have the greatest potential to adversely impact the historic environment, as informed by heritage impact assessment work for the Local Plan.

Water and air

3.46 The relevant national PPPs under this topic are:

- Construction Industry Research and Information Association (CIRIA) – Delivering better water management through the planning system (2019).
- Environment Agency, Managing Water Abstraction (2016).
- Defra, Water White Paper (2012).
- Defra, Clean Air Strategy (2012).

3.47 **Implications for the Local Plan and SA:** The Local Plan should consider setting out policies to promote the efficient use of water and limit all types of pollution including water and air pollution. It should also seek to limit pressure on the wastewater treatment (WwT) infrastructure and water supply. When considered, the allocation of sites for development should take account of areas which have highest sensitivity in relation to these issues, including Source Protection Zones (SPZ) and Air Quality Management Areas (AQMA). To limit the potential for air quality issues to be intensified as development is delivered over the plan period the Local Plan should also factor in the contribution specific site options can make to achieving modal shift and limiting the need for residents to travel.

3.48 The contribution policy options can make to achieving these aims can be tested through the SA. Individual site options can be considered in relation to particular sensitivities of the WwT infrastructure and other identified areas (such as SPZs and AQMAs).

Economic growth

3.49 The relevant national PPPs under this topic are:

- HM Government, Industrial Strategy: building a Britain fit for the future (2017).
- Infrastructure and Projects Authority, National Infrastructure Delivery Plan 2016-2021.
- LEP Network, LEP Network response to the Industrial Strategy Green Paper Consultation (2017).

3.50 **Implications for the Local Plan and SA:** The Local Plan should allocate land to support the projected level of economic growth required over the plan period. Local Plan policies should be included to help promote sustainable economic and employment growth to benefit all members of the community as to reduce disparity in the plan area. This should include support for the infrastructure required for the economy to function successfully. Local economic growth should be considered in the light of wider economic growth of the West of England. When considered, employment sites should be located to enable local people to be able to access the new employment opportunities. Local Plan policies may also seek to promote the viability of town centres.

3.51 The SA can test individual site and policy options in relation to the contribution they can make to achieving these aims. When considered, employment site options should be appraised in terms of the contribution they can make to meeting the employment land requirements of the District as well as the access residents would have to the employment opportunities delivered.

Transport

3.52 The relevant national PPPs under this topic are:

- Department for Transport, Transport Investment Strategy (2017).

3.53 **Implications for the Local Plan and SA:** The potential for reducing the need to travel, limiting congestion and associated benefits for air quality and climate change as well as public health should inform the preparation of the policies for the Local Plan and its site allocations. The Local Plan can also be supportive of more sustainable modes of transport including active travel. This may include support for the infrastructure necessary for electric vehicles/e-bikes. Furthermore, the selection of site options for development should be informed by issues such as the potential for access to new and existing public transport nodes and active transport routes and specific highways capacity issues. When considered, the selection of individual site options should also be

informed by their proximity to essential services and facilities which is likely to reduce the need for residents to regularly travel long distances.

- 3.54 The SA should be used to test policy and site options (when considered) in terms of the contribution they can make to making transport choices more sustainable in the District. As well as testing site options in terms of limiting the need to travel in South Gloucestershire, policy options should be tested with regard the contribution they make to the uptake of more sustainable transport options, such as walking and cycling and public transport.

Sub-national policy context

- 3.55 Below the national level there are further plans and programmes which are of relevance for the Local Plan and SA process. These plans and programmes sit mostly at the sub-regional, county and district level. Details of those plans and programmes which are of most relevance at this level are provided in **Appendix 3**.

Surrounding development plans

- 3.56 Development in the District will not be delivered in isolation from those areas around it. Given the interconnection between South Gloucestershire and the surrounding areas there is potential for cross-boundary and in-combination effects where development is proposed through development plans in neighbouring authorities. The presence of the Severn Estuary means that the District is only directly adjoined by other local planning authority areas to the north, south and west.
- 3.57 As such, a summary of the following plans for local authority areas which neighbour South Gloucestershire is also provided in **Appendix 3**:
- Bath and North East Somerset Core Strategy (Adopted 2014) and Placemaking Plan (Adopted 2017).
The Council consulted upon options for its Local Plan 2016-2036 up to January 2019, however, this work has been paused following the withdrawal of the West of England Joint Spatial Plan (JSP). The Council has decided to begin work on the Partial Review of its adopted Local Plan and consultation on a Commencement document was undertaken from April 2020.-
 - Bristol Core Strategy (Adopted June 2011).
The Council is also beginning work on its review of the Local Plan from 2020 with a view to hold early consultations in 2021.
 - Cotswold District Local Plan 2011-2031 (Adopted August 2018).
 - South West Inshore and South West Offshore Marine Plan (Draft for consultation – January 2020).
 - Stroud District Local Plan (Adopted 2015).
The Council also consulted upon its Draft Local Plan Review up to January 2020 with a further consultation on options for housing undertaken up to December 2020).
 - Wiltshire Core Strategy (Adopted 2015).
The Council also undertook early consultation work (Issues and Options) on the Local Plan Review to cover the period up to 2036 in late 2017.

Baseline Information

- 3.58 Baseline information provides the context for assessing the sustainability of proposals in the Local Plan and it provides the basis for identifying trends, predicting the likely effects of the plan and monitoring its outcomes. Baseline data must be relevant to environmental, social and economic

issues, be sensitive to change and should ideally relate to records that are sufficient to identify trends.

- 3.59 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) The environmental characteristics of areas likely to be significantly affected.'

- 3.60 Schedule 2(6) of the SEA Regulations requires the likely significant effects of the plan on the environment to be assessed in relation to: 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. As an integrated SA and SEA is being carried out, baseline information relating to other 'sustainability' topics has also been included; for example, information about housing, transport, energy, waste and economic growth.

- 3.61 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. Baseline information can also be combined with an understanding of drivers of change that are likely to persist regardless of the Local Plan to understand the likely future sustainability conditions in the absence of the Local Plan.

- 3.62 The baseline information is presented in **Appendix 2**.

Key Sustainability Issues

- 3.63 Key sustainability issues for South Gloucestershire were originally identified in light of the policy review and baseline information included in the SA Scoping Report (October 2020). These issues were updated to reflect responses received during consultation on the Scoping Report. The key issues identified through the analysis of the baseline, policy context and the consultation process are summarised in **Table 3.1**.
- 3.64 It is also a requirement of the SEA Directive that consideration is given to the likely evolution of the environment in the plan area (in this case South Gloucestershire) if the new Local Plan was not to be implemented. This analysis is also presented in the second column of Table 3.1 in relation to each of the key sustainability issues.
- 3.65 The information in the table shows that, in general, the current trends in relation to the various social, economic and environmental issues affecting South Gloucestershire would be more likely to continue without the implementation of the new Local Plan, although the policies in the adopted South Gloucestershire Local Plan would still go some way towards addressing many of the issues. In most cases, the new Local Plan offers opportunities to directly and strongly affect existing trends in a positive way, through an up-to-date plan which reflects the requirements of the NPPF.

Table 3.1 Key sustainability issues for South Gloucestershire

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
<p>Climate Change is likely to affect biodiversity, increase hazards from fluvial flooding and also affect the social and economic aspects of life. The diverse character of South Gloucestershire (in that it neighbours Bristol City and the draw this creates for jobs, tourism, accommodation etc. is in stark contrast to the rural areas that are dispersed) means that there are likely to be difficulties with regards to the reductions in greenhouse gas emissions.</p>	<p>Climate change is likely to have on-going effects regardless of the Local Plan. The adopted Local Plan already includes policies seeking to address this issue, and these would continue to apply in the absence of the new Local Plan through the NPPF.</p> <p>However, the Local Plan 2020 offers the opportunity to:</p> <ul style="list-style-type: none"> • increase the requirement for zero carbon, energy efficient building design and construction in new development, and support the retrofitting to decarbonise heating; • increase renewable and low carbon energy generation; • minimise the need to travel and decarbonise travel where it is needed. Having declared a Climate Emergency within the authority, inclusion in the Local Plan helps strengthen the ability to reduce the impacts of climate change.
<p>New development in the district will mean there will be increasing demands for energy provision in the future.</p>	<p>The delivery of new homes and other development over the plan period could increase demand for energy consumption in South Gloucestershire. At present, the adopted Local Plan includes policies seeking to address this issue, and these could continue to apply in the absence of creating a review. Core Strategy Policies CS3 and CS4 encourage sustainable and low carbon energy generation, as well as encourage district heat generation to be explored.</p> <p>The Local Plan 2020 offers the opportunity to update these policies to encourage improved energy efficiency across the unitary authority, and increase the proportion of energy which is supplied by renewable sources.</p>
<p>South Gloucestershire contains many areas of high ecological value including sites of international and national importance. These and undesignated areas are under threat from urbanising pressures (pollution of soils, water, air and light as well as noise pollution), as well as disturbance and damage from recreational use and also invasive non-native species.</p>	<p>Pressures on the natural environment in the authority are likely to continue regardless of the new Local Plan, particularly given the likely requirement for more housing and employment development to meet growth projections through the SDS. It will be important to consider the potential for effects on designated biodiversity sites as well as on wider ecological networks. Effects will be influenced by climate change, and there is potential for effects from new development as a result in of direct habitat loss, damage and fragmentation. The adopted Core Strategy and Policies, Sites and Places Plan already includes policies seeking to address these pressures, including CS9: Managing the environment and heritage; PSP18: Statutory Wildlife Sites: European Sites and Sites of Special Scientific Interest (SSSIs) and PSP19: wider biodiversity.</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
	<p>However, without the site allocations to be made through the later stages of the Local Plan, further development may not come forward in the most appropriate locations and impacts on biodiversity could be amplified. The Local Plan 2020 also offers the opportunity to update planning policy in relation to the protection of areas which are of importance in terms of their biodiversity and geodiversity with consideration for the future evolution of development in the District. The Local Plan should also help to promote biodiversity net gain and good and effective biosecurity practices. The SA for the new Local Plan will, in time, incorporate the findings of other technical work undertaken, including the Habitats Regulations Assessment, which will provide further insight into biodiversity impacts and present opportunities to limit adverse impacts at such locations.</p>
<p>The countryside is under pressure from urbanising influences which are driven by a need for new housing provision and economic growth and infrastructure improvements to support new growth.</p>	<p>Pressures on the countryside are likely to continue regardless of the implementation of a new Local Plan. The adopted Core Strategy sets out the areas of growth, mainly within or adjacent to existing urban areas and market towns.</p> <p>However, without the allocations that the Local Plan 2020 will eventually include, further development may not come forward in the most sustainable and appropriate locations, and therefore the impacts on the countryside could be more significantly adverse.</p>
<p>The reliance on the private car for commuting has resulted in areas within South Gloucestershire with poor air quality and Air Quality Management Areas (AQMAs) being designated. This is compounded due to the authority's position in relation to the M4, M5 and M32, multiple A Roads and a wide range of industrial activity in the authority.</p>	<p>Without intervention, development could happen in an unplanned and ad hoc manner, which has the potential to not be in the most sustainable location, and compound the air quality issues in South Gloucestershire.</p> <p>The Local Plan 2020 seeks to minimise the need to travel and decarbonise travel where it is needed. Having declared a Climate Emergency within the authority, inclusion in the Local Plan helps strengthen the ability to minimise development's impact.</p>
<p>The district has a varied and distinctive landscape character from the nationally designated Cotswolds AONB to more local hillsides, valleys and features, which are under pressure from new development.</p>	<p>Without intervention, development could happen in an unplanned and ad hoc manner, which has the potential to impact on landscape character within South Gloucestershire. This includes the potential for detrimental development to occur within the AONB and its wider setting. The adopted Local Plan already includes policies to protect and enhance the landscape, such as policies CS9: Managing the environment and heritage, and PSP2: Landscape. Here, development proposals are only deemed acceptable where they conserve and where appropriate, enhance the quality, amenity, distinctiveness and special character of the landscape.</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
	<p>The Local Plan 2020 offers the opportunity to update the current policy position in response to the evolution of the area, and development pressures it faces through more specific development management policies and site allocations that are selected following consideration of their impacts on landscape character through the SA.</p>
<p>The district includes a number of historic assets of designated importance which are under pressure from new development.</p>	<p>Without intervention, development could happen in an unplanned and ad hoc manner, which has the potential to impact on heritage assets within South Gloucestershire. The adopted Local Plan includes policies that seek to protect and enhance the historic environment. Policy PSP17: Heritage Assets and the Historic Environment sets out the criteria by which proposals should protect, and where appropriate, enhance the heritage assets.</p> <p>The Local Plan 2020 provides the opportunity for development to be located in areas which are less sensitive in terms of their impact on heritage assets (with consideration for other sustainability issues) through the SA process applied to potential site allocations. The new Local Plan provides a way of updating the policy position the Council has taken with regards the protection of heritage assets and their setting through appropriate development policies.</p>
<p>There are areas of high flood risk, particularly around the Severn Estuary and main river corridors. Parts of South Gloucestershire are liable to flooding.</p>	<p>Without intervention, development could happen in an unplanned and ad hoc manner, which has the potential to impact on flooding within South Gloucestershire. The adopted Local Plan already includes policies that seek to reduce flood risk through the appropriate siting of development, supporting the provision of SuDS and other proposals which would reduce vulnerability to flood risk.</p> <p>New development supported through the Local Plan 2020 can increase the risk of flooding, however it also offers the opportunity to provide development in locations which present the lowest flood risk. The plan provides an opportunity to encourage Natural Flood Management measures which can provide benefits in terms of reduced flood risk and support for local biodiversity.</p>
<p>Parts of the authority fall within a nitrate vulnerable zone, which indicates that some water bodies are exposed to significant levels of nitrates, with a potential impact on local water quality. In addition, phosphates are one of the main reasons water bodies fail their Water Framework Directive status. New development puts pressure on both</p>	<p>Without intervention, development could happen in an unplanned and ad hoc manner, which has the potential to impact on water quality and quantity within South Gloucestershire. The adopted Local Plan includes policies to protect and enhance water quality. Policy CS9: Managing the Environment and Heritage notes that developments will be expected to protect the quality and quantity of the water environment and its margins.</p> <p>The Local Plan 2020 presents the opportunity to allocate new development at sites which are less likely to have adverse impacts in terms of their local water quality following their consideration through the SA process. There is also the opportunity to include new development</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
<p>ground and surface waters, in terms of both quality and quantity.</p>	<p>management policies thereby updating the planning policy provision in protecting the quality of water including ground and surface waters. All new development should be encouraged to be nutrient neutral in terms of phosphates and nitrates. While the EA notes that wastewater infrastructure should also include practical inclusion of appropriate phosphate / nitrate / nutrient stripping facilities, this is not something that can be addressed by the Local Plan. The Local Plan 2020 policies also present an opportunity to help to limit adverse impacts resulting in terms of water quantity (e.g. through encouraging water efficiency techniques within new developments).</p>
<p>Demography of the area – An increasing number of people live in the district and our population is increasing in age. An ageing population will require careful consideration of the adaptability and accessibility of new homes, infrastructure, services and facilities.</p>	<p>The ageing population is likely to continue regardless of the implementation of a new Local Plan. The adopted Local Plan through policy CS18: Housing Diversity seeks to encourage new developments to contribute to the provision of sustainable and inclusive communities meeting needs of residents including older people and also provide range of different types, tenures and sizes of housing, to create mixed communities.</p> <p>The Local Plan 2020 offers the opportunity to build on this policy approach through development management and site allocation policies which will help to meet the requirements of the future age structure of the District. In addition to development management policies which promote the provision of homes suitable for all sections of the community this will include the consideration of sites in terms of access to existing services centres and services and facilities through the SA process.</p>
<p>Inequalities and Deprivation – Despite being a relatively affluent authority there are inequalities relating to access to employment, educational attainment and health, which are focused in certain areas which are designated as priority neighbourhoods.</p>	<p>Areas of inequalities and deprivation could be maintained or worsen without the implementation of a new Local Plan. Although not explicit in the adopted Local Plans, opportunities to consider access to healthcare, open spaces and other recreational facilities would have been taken into account during identification and allocation of sites.</p> <p>The new Local Plan presents further opportunities to allocate new housing development sites at locations which are in close proximity to existing healthcare facilities, open spaces and other facilities which might encourage healthier lifestyle choices including increased levels of physical activity. The new Local Plan might also be used to protect existing assets from development, and to include policy direction regarding housing types, mix, size, design and inclusion of private outdoor space.</p> <p>Without the implementation of new site allocations to be included in the Local Plan 2020 there may be less certainty about the delivery of housing and employment land and therefore deprivation in South Gloucestershire would be less likely to be addressed.</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
<p>There is a need to ensure that there are employment sites available to accommodate businesses of all sizes, including key local sectors in a rapidly changing economic and retail environment.</p>	<p>Without the implementation of new site allocations to be included in the new Local Plan there may be less certainty about the delivery of employment land and necessary transport infrastructure and therefore any potential for economic stagnation would be less likely to be addressed.</p>
<p>Ensuring there is a balanced range of safeguarded employment land across South Gloucestershire, so that all communities have access to job opportunities that are accessible by walking, cycling and effective public transport in order to create and maintain sustainable communities. Employment land is being lost throughout South Gloucestershire due to pressure for housing. Areas in the East Fringe have a lower job to population ratio, consequently commuting patterns are higher.</p>	<p>Without intervention, employment land could continue to be lost to housing development within South Gloucestershire. The adopted Local Plan provides guidance for where development should go across the authority, as well as preventing the loss of employment land.</p> <p>There is therefore a need for the Local Plan 2020 to limit the loss of employment land and to rebalance the jobs to resident ratio by allocating land in key areas, order to ensure that there are sufficient jobs in local areas, to minimise the impacts of commuting on the environment. There is also a requirement to amend and strengthen the policies surrounding the loss of employment land.</p>
<p>Town Centres and High Streets face evolving pressures in terms of outside retail offers and the continued importance of e-retailing and the provision of services online. This has led to an increase in vacancies in the town centres.</p>	<p>Without intervention, town centre vacancies could continue to increase within South Gloucestershire. There are a number of policies in the Local Plan that seek to protect and enhance the vitality and viability of the town centres, such as CS14: Town Centres and Retail and PSP31: Town Centre Uses, which sets out the town centre boundaries, and primary retail areas.</p> <p>The Local Plan 2020 provides the opportunity to incorporate updated policies to protect the evolving role of the town centres. As the plan is looking to also incorporate Urban Lifestyles, it is looking to regenerate areas as well as provide accommodation and an increase in footfall to these areas. This will enhance the opportunities within these centres as areas for economic growth, job provision and housing.</p>
<p>Promoting Healthy Lifestyles – residents in South Gloucestershire are generally healthier and have a better life expectancy than the national average. However, there is an upward trend in chronic diseases, which reflects increases in the elderly population and the prevalence of child and</p>	<p>It is likely that without intervention, development in the plan area could be located so that issues of air quality deteriorate and sensitive uses are provided in areas which are most affected by this issue. The provision of new development in a manner which does not provide good access to essential services and facilities and does not allow for the incorporation of infrastructure to support active travel is also less likely to encourage active lifestyles in South Gloucestershire. Policy PSP9: Health Impact Assessments in the adopted Policies, Sites and Places Plan requires</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
<p>adult obesity. Poor air quality also has a direct effect on health in parts of the plan area given the prevalence of high volumes of traffic.</p> <p>Measures to help address these issues might include facilitating travel by walking, cycling and active modes, and ensuring access to open space, recreation and a high quality environment are all important considerations for future planning of the district.</p>	<p>development to provide an environment that promotes health and wellbeing, addresses adverse health impacts and reduces health inequalities. Furthermore, Policy PSP10: Active Travel Routes requires that developments should safeguard existing and proposed Active Travel Routes.</p> <p>Locating growth in close proximity to existing or new key services and facilities, to create walkable and cycle able neighbourhoods and growth which avoids a reliance on private car travel, will be important for:</p> <ul style="list-style-type: none"> • Climate change mitigation; • Sustainable travel; • Air quality; and • Health and wellbeing. <p>The Local Plan 2020 provides the opportunity to incorporate updated policies to distribute new development as to encourage travel by active modes. It can also ensure access to services and facilities which support local public health including the requirement to make new provisions of this type to ensure that existing services do not become overburdened. Updated policies can also help to address the protection and enhancement of Active Travel Routes in South Gloucestershire.</p>
<p>Providing enough new homes for the growing and changing population of the district (including affordable and to meet the needs of different groups) is an issue. This directly impacts the ability of the authority to ensure it meets the government planning requirements to have a 5 year supply of deliverable housing land.</p>	<p>Without intervention, sufficient housing of the right type may not be provided to meet the growing and changing population within South Gloucestershire. The Core Strategy seeks to increase the number of houses in South Gloucestershire by providing a minimum of 28,355 new homes, of a diverse and affordable range. The majority of this housing is provided through strategic allocations (such as North Yate New Neighbourhood, and Cribbs Patchway New Neighbourhood). However, alongside the need to increase housing provision in the future, there is the need to improve the diversity and affordability of stock being delivered.</p> <p>The Local Plan 2020 will continue to build on the strengths of the Core Strategy, and will seek to allocate land that is sustainable, adaptable and affordable. Without the Local Plan 2020, housing supply issues will intensify, and house prices will continue to rise unsustainably. Without the implementation of the site allocations to be included as part of the Local Plan there may be less certainty about the delivery of affordable housing.</p>
<p>Lack of suitable land remaining within existing settlement limits for development causes additional growth pressures in urban areas. This needs to be balanced with achieving a high quality of life and</p>	<p>Without intervention, pressure on urban areas could continue within South Gloucestershire. The adopted Local Plan allocated land that was deemed the most sustainably suitable for development, through its spatial strategy (Policy CS5) and site-specific Core Strategy policies,</p>

Key sustainability issue for South Gloucestershire	Likely evolution without the Local Plan 2020
safeguarding our built and natural assets in urban locations.	<p>and also Policy PSP47. However, there is increasing pressure for land outside of existing settlements to be developed.</p> <p>The Local Plan 2020 will look at refreshing the settlement boundaries where appropriate, in order to protect the countryside from inappropriate development.</p>
<p>There has been an increase in growth pressures for rural areas, and an increased amount of speculative development, particularly outside the Green Belt. This has negatively impacted the unique character, natural and built assets in rural South Gloucestershire.</p>	<p>Without intervention, pressure on rural areas could continue within South Gloucestershire. Given the housing requirements for the region, an updated plan is required in order to prevent speculative and ad-hoc development.</p> <p>Well planned and located rural growth can assist in providing new homes, affordable housing and support rural services, facilities and long term sustainability, which may be needed by some communities.</p>
<p>Need to safeguard land for infrastructure needed to support growth, from cycle routes, public transport routes, roads, community, education and health facilities.</p>	<p>In order to achieve sustainable communities, it is important to ensure that sufficient land is available to enable the provision of infrastructure. Without the Local Plan 2020, speculative developments could sterilise future infrastructure aspirations.</p>
<p>The need to ensure a steady and adequate supply of minerals, and avoid the needless sterilisation of mineral resources.</p>	<p>Without the Local Plan 2020, there is the potential that insufficient provision will be made for minerals to be worked, and also that essential mineral resources become sterilised through inappropriate development, causing detrimental effects on the aggregates industry in South Gloucestershire. The Local Plan 2020 needs to make provisions to ensure that minerals can continue to be worked in South Gloucestershire.</p>

The SA Framework

- 3.66 As described in the methodology chapter, the relevant objectives established via the review of plans, policies, and programmes and the key sustainability issues identified by the baseline review informed development of a framework of sustainability objectives, the SA framework, against which the plan has been assessed. The SA framework is presented in **Table 3.2**.
- 3.67 **Table 3.2** presents the SA framework which includes 28 headline SA objectives. The table also shows how all of the 'SEA topics' (as listed in Schedule 2 of the SEA Regulations) have been covered by the SA objectives in the SA framework. This reflects the fact that an integrated approach is being taken to the SA and SEA of the new Local Plan. A small number of changes have been made to the SA framework since it was presented in the Scoping Report, in response to comments received during the Scoping consultation – these changes are detailed in **Appendix 1**.

Table 3.2 SA Framework for the South Gloucestershire Local Plan

Theme	Sustainability Objective	SEA Topic
1. Climate Change	<p>1a. To minimise the District’s contribution to climate change through a reduction of greenhouse gas emissions from all sources and facilitate the aim of carbon neutrality by 2030</p> <ul style="list-style-type: none"> • <i>Promote energy efficient and water efficient design</i> • <i>Encourage the provision and use of renewable energy infrastructure</i> <p>NB: Greenhouse gas emissions associated with travel were covered under another SA objectives</p>	<p>Air</p> <p>Climatic factors</p> <p>Material assets</p>
	<p>1b. To support the District’s adaptation to unavoidable climate change.</p> <ul style="list-style-type: none"> • <i>Promote design which will help to mitigate the effects of climate change (for example through appropriate building orientation and appropriate incorporation of SuDS)?</i> • <i>Support the protection, restoration, creation, enhancement and the multi-functionality of the green/blue infrastructure network?</i> 	<p>Air</p> <p>Climatic factors</p> <p>Material assets</p>
Improve the health, safety and wellbeing of all	<p>2a. Achieve reasonable access to public open space (Designated Open Spaces, Town and Village Greens) and Public Rights of Way, taking into account quality and quantity</p> <p>Reasonable Distance</p> <p><i>In line with South Gloucestershire planning policy quality standards established in the Open Space Audit</i></p>	<p>Landscape</p> <p>Human Health</p> <p>Population</p>
	<p>2b. Minimise the impact of noise on sensitive receptors</p> <p>Sensitive uses = residential, schools</p> <p>Relevant Distance</p> <p><i>Adjacent to noise generating uses</i></p>	<p>Human Health</p> <p>Population</p>
	<p>2c. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality</p>	<p>Air</p> <p>Climatic factors</p>

Theme	Sustainability Objective	SEA Topic
	Sensitive uses = residential, schools, children's facilities, nursery's, elderly people accommodation	Human health Population
	2d. Achieve reasonable sustainable access to healthcare services and facilities (Doctors and Dentists)	Material assets Human health Population
Support communities that meet people's needs	3a. Deliver a suitable quantum of high quality housing for South Gloucestershire.	Material assets Population
	3b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within south Gloucestershire	Material assets Population
	3c. Achieve reasonable sustainable access to community facilities (Post Office, Dedicated Community Centre, Public House, Library)	Material assets Human health Population
	3d. Achieve reasonable sustainable access to educational facilities (primary schools, secondary schools)	Material assets Population

Theme	Sustainability Objective	SEA Topic
	3e. Achieve reasonable sustainable access to retail and food buying services and facilities (Town and District Centres or local comparison stores, supermarkets and local convenience stores)	Material assets Population
	3f. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage around Kingswood; Staple Hill and Yate	Material assets Population
	3g. Improve access to high speed broadband	Population
Develop a diverse and thriving economy that meets people's needs	4a. Deliver a reasonable quantum of employment floorspace	Material assets Population
	4b. Achieve reasonable sustainable access to major employment areas	Material assets Population Air Climatic factors
Maintain and improve	5a. Designated Assets: Minimise impact on and where appropriate enhance the historic environment, national heritage assets and their settings	Cultural heritage

Theme	Sustainability Objective	SEA Topic
environmental quality and assets	5b. Undesignated Assets: Minimise impact on and where appropriate enhance the historic environment, local heritage assets and their settings	Cultural heritage
	<u>5c. Minimise impact on and where possible enhance habitats and species Taking into account the effects of climate change, protect and enhance biodiversity and the nature network, including protected sites and species, to achieve a measurable net gain and greater natural resilience</u>	Biodiversity Climatic factors Fauna & Flora
	5d. Minimise impact on and where appropriate enhance valued landscapes <u>(including the Cotswolds AONB and its setting)</u>	Cultural heritage Landscape
	5e. Deliver a range and quality of, and increased access to new green infrastructure across South Gloucestershire AND protect and enhance existing GI	Biodiversity Climatic factors Fauna & Flora Landscape Soil Water
	5f. Promote the conservation and wise use of land, maximising the re-use of previously developed land	Fauna & Flora Landscape

Theme	Sustainability Objective	SEA Topic
		Soil
	5g. Minimise the loss of productive land, especially best and most versatile agricultural land	Landscape Soil
	5h. Minimise vulnerability to tidal/fluvial flooding (taking account of climate change), without increasing flood risk elsewhere	Climatic factors Water
	5i. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere	Climatic factors Water
	5j. Minimise harm to, and where possible protect and enhance (surface and groundwater) water quality and quantity/availability	Water
Use of natural resources	6a. Reduce waste	Material Assets

Theme	Sustainability Objective	SEA Topic
	6b. Minimise consumption and extraction of minerals	Material Assets
Protect and enhance valuable Green belt	7a. Protect and enhance valuable Green Belt	Material assets

Use of the SA framework for the appraisal of the Local Plan 2020 Phase 1 document

- 3.68 At this early stage of developing choices and policy options for Local Plan, the decision has been made to present a combined summary of effects for a small number of the SA objectives where overarching and common themes exist between them. Considering the high number of SA objectives in the framework originally presented in the SA Scoping Report, this approach has been taken to provide the reader with a more concise overview of the expected sustainability effects. The SA objectives in question will allow for more detailed appraisal of the individual site options when these are considered, but for this early stage option work it is considered helpful to present the more concise summary. Where relevant further detail is provided in the justification text for the effects recorded.
- 3.69 The sustainability effects for the following SA objectives have been included together in this SA Report:
- 3a/3b Housing – covering delivering a suitable quantum and mix of high quality housing;
 - 3c/3d/3e Access to community facilities, education and retail;
 - 5a/5b Historic environment – covering minimising impacts on the historic environment including national heritage assets and local heritage assets and their respective settings.
 - 5f/5g Land use – covering maximising the re-use of previously developed land and minimising the loss of productive agricultural soils.
 - 5h/5i Flood risk – covering minimising vulnerability to tidal/fluvial and other sources of flooding (including surface water flooding).
 - 6a/6b Waste and resources – covering reducing waste and minimising consumption and extraction of minerals.
- 3.70 A small number of changes have been made to the SA framework since it was presented in the Scoping Report, in response to comments received during the Scoping consultation – these changes are shown with strikethrough and underlined texted in **Table 3.2** and detailed further in **Appendix 1**.

4 Sustainability Appraisal findings for the policy options

- 4.1 This chapter presents the SA findings for the policy options presented in the Local Plan 2020 Phase 1 document. The findings for the policy options have been presented to follow the order in which they appear in the Local Plan 2020 Phase 1 document. This order is described in **Chapter 1** of this SA Report which presented the outline of the South Gloucestershire Local Plan 2020.
- 4.2 Following the description of the expected sustainability effects for each policy option, where recommendations for the next stage of the Local Plan have been identified to help strengthen the positive effects and mitigate the negative effects expected, these are included.

Potential plan priorities

- 4.3 The Local Plan 2020 Phase 1 document includes nine potential priorities that might be used to shape the content and approaches of the Local Plan. The priorities and the policies and strategy which are influenced by them will inform where new development for housing, employment and services and facilities should be located. The nine potential priorities are:
1. Pursue a carbon neutral and resilient future in a changing climate;
 2. Protect and enhance our environment;
 3. Development that promotes health and well-being;
 4. Creating exceptional places and spaces;
 5. Planning for urban and rural areas;
 6. Provide the right type and number of new homes;
 7. Enable a productive, clean and inclusive economy;
 8. Achieving sustainable travel and transport; and
 9. Ensuring the timely and efficient provision of infrastructure to support growing communities.
- 4.4 The nine potential priorities cover a range of topic headings. Given the relatively large number of priorities and considering their overarching nature as well as the numerous topics they cover, the approach has been taken to group various priorities together to present the summary of likely sustainability effects.

Potential priorities 1 to 3

- 4.5 The summary of the expected sustainability effects appraisal for potential priorities 1 to 3 is presented in **Table 4.1** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.1 Summary of sustainability effects for the potential priorities 1 to 3

SA Objective	1. Pursue a carbon neutral and resilient future in a changing climate	2. Protect and enhance our environment	3. Development that promotes health and well-being
1a Contribution to climate change	++	+	+

SA Objective	1. Pursue a carbon neutral and resilient future in a changing climate	2. Protect and enhance our environment	3. Development that promotes health and well-being
1b Adaptation to climate change	++	+	+
2a Public open space	0	++	++
2b Noise	+	0	0
2c Air quality	++	+	+
2d Access to healthcare services	+	0	0
3a/3b Housing	+	0	+
3c/3d/3e Access to community facilities, education and retail	+	0	+
3f Deprivation	+	0	++
3g Digital connectivity	0	0	0
4a New employment floorspace	0	0	+
4b Access to major employment areas	+	0	0
5a/5b Historic environment	0	++	0
5c Biodiversity	+	++	+
5d Landscape	0	++	0
5e Green infrastructure	0	++	++
5f/5g Land use	0	0	0
5h/5i Flood risk	+	+	0
5j Water resources	0	0	0
6a/6b Waste and resources	0	0	0
7a Green Belt	0	+	0

- 4.6 The high level and aspirational nature of the potential priorities means that the effects identified are largely positive. Negligible effects are identified in relation to a number of SA objectives given that potential priorities 1 to 3 focus mainly on climate change, the natural environment and health and well-being.
- 4.7 Potential priorities 1 to 3 are all expected to have positive effects in relation to SA objective 1a: **climate change mitigation** and SA objective 1b: **climate change adaptation**. For potential priorities 2 and 3, the commitment to green infrastructure is likely to contribute to carbon sequestration and improved resilience to potential future flooding. In the case of potential priority 1, the positive effects identified are expected to be significant due to the comprehensive nature of its aims in relation to climate change mitigation and adaptation. In relation to climate change mitigation and adaptation, these cover promotion of sustainable transport, zero carbon/energy efficient design, renewable and low-carbon energy generation, flood risk resilience and preventing overheating.
- 4.8 The commitment to support active lifestyles through the provision of high quality green infrastructure through potential priority 3 is likely to increase the public's access to green spaces. Therefore, significant positive effects are expected for this priority in relation to SA objective 2a: **open space** and SA objective 5e: **green infrastructure**. Significant positive effects are also

expected for potential priority 2 in relation to these SA objectives. This priority seeks to ensure the connectivity of green infrastructure as well as requiring tree planting.

- 4.9 The delivery of green infrastructure and tree planting may also mitigate poor air quality in the District through absorption of harmful pollutants. As such, minor positive effects are expected in relation to SA objective 2c: **air quality** for potential priorities 2 and 3. Potential priority 1 is likely to have more direct impacts on mitigating poor air quality in the District through its commitments to reducing the need to travel and promoting sustainable transport. Therefore, a significant positive effect is expected in relation to SA objective 2c for this potential priority.
- 4.10 Potential priorities 1 and 3 include housing related aims that are likely to contribute to the achievement of higher quality housing stock in South Gloucestershire. The former supports energy-efficient building design/construction and retrofitting of existing buildings. The latter requires new homes to provide high quality residential amenity and private space. As such, minor positive effects are expected in relation to SA objective 3b: **housing**.
- 4.11 Potential priority 3 is also supportive of achieving local regeneration and delivering new employment opportunities. Therefore, positive effects are expected in relation to SA objective 3f: **deprivation** and SA objective 4a: **new employment floorspace**. Given that this priority would also help to promote healthier lifestyle choices and reduce health inequalities the positive effect expected in relation to SA objective 3f is significant. Minimising the need to travel and supporting travel by sustainable modes is likely to benefit those without access to a car. Therefore, a minor positive effect is expected for potential priority 1 in relation to SA objective 3f.
- 4.12 Potential priority 3 also sets out an approach which would deliver new education opportunities and therefore a minor positive effect is also expected in relation to SA objective 3c/3d/3e: **access to community facilities, education and retail**. The approach of potential priority 1 to minimise the need to travel and to provide effective public transport, is likely to increase the access residents in the District have to important community services and facilities (including education, retail and healthcare) and key areas for employment. Therefore, minor positive effects are expected for this potential priority in relation to SA objective 2d: **access to healthcare services**, SA objective 3c, 3d and 3e: **access to community facilities, education and retail** and SA objective 4b: **access to major employment areas**. Reducing a reliance on travel by private vehicles is also likely to limit noise pollution as new development is occupied in the District. As such, minor positive effect is expected for potential priority 1 in relation to SA objective 2b: **noise**.
- 4.13 Potential priority 2 seeks to ensure that development avoids locations that would cause unacceptable harm to natural environment assets and enhance the functionality and connectivity of Nature Recovery Networks. Potential priority 2 also commits to achieving biodiversity net gain in development. As such, a significant positive effect is expected in relation to SA objective 5c: **biodiversity** for this potential priority. Significant positive effects are also expected for potential priority 2 in relation to SA objective 5d: **landscape** due to the objective of protecting and enhancing important local landscape features. The commitment to protecting the intrinsic features of the local landscape may correspond with protection of valuable areas of Green Belt in the District. As such, an uncertain minor positive effect is expected in relation to SA objective 7a: **Green Belt** for potential priority 2. Potential priority 2 also sets out that development should not be sited to result in unacceptable harm to the District's historic environment assets. Therefore, significant positive effects are expected for this potential priority in relation to SA objective 5a/5b: **historic environment**.
- 4.14 Potential priorities 1 and 2 also include commitments to mitigate flood risk through increasing flood resilience and directing growth to areas of lower flood risk. Therefore, minor positive effects are expected in relation to SA objectives 5h/5i: **flood risk**.

Potential priorities 4 to 6

- 4.15 The summary of the expected sustainability effects appraisal for potential priorities 4 to 6 is presented in **Table 4.2** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.2 Summary of sustainability effects for the potential priorities 4 to 6

SA Objective	4. Creating exceptional places and spaces	5. Planning for urban and rural areas	6. Provide the right type and number of new homes
1a Contribution to climate change	+	+	-?
1b Adaptation to climate change	+	0	-?
2a Public open space	0	+	0
2b Noise	+	0	0
2c Air quality	+	+	-?
2d Access to healthcare services	+	+	+/-?
3a/3b Housing	+	+	++
3c/3d/3e Access to community facilities, education and retail	+	+	+/-?
3f Deprivation	++	++	++
3g Digital connectivity	0	0	0
4a New employment floorspace	0	0	0
4b Access to major employment areas	+	0	0
5a/5b Historic environment	+	0	-?
5c Biodiversity	0	0	-?
5d Landscape	+	0	-?
5e Green infrastructure	0	0	0
5f/5g Land use	0	++	-?
5h/5i Flood risk	0	0	-?
5j Water resources	0	0	0
6a/6b Waste and resources	0	0	0
7a Green Belt	0	++	-?

- 4.16 Negligible effects are expected in relation to the majority of SA objectives for potential priorities 4 and 5. These priorities are focussed mainly on the design of new neighbourhoods and improving quality of life in urban and rural locations. For potential priority 6, a number of negative effects are identified given the potential for impacts on the District's environment that may occur as a result of contributing to the identified housing requirement. This includes potential adverse impacts on biodiversity assets as well as on heritage assets and important landscapes and their respective settings. As such, minor negative effects are identified in relation to SA objective 5a/5b: **historic environment**, SA objective 5c: **biodiversity** and SA objective 5d: **landscape**. The effects identified are uncertain as the impacts to sensitive environmental receptors will be dependent on the exact location, design and layout of new development (which will be assessed through the site options to be presented at a later stage of the Local Plan and development management policies).

- 4.17 Potential priority 4 seeks to ensure that new development responds positively to natural, built, historic and landscape assets. As this is likely to help protect and enhance the setting of heritage assets and landscapes in South Gloucestershire minor positive effects are expected in relation to SA objectives 5b and 5d.
- 4.18 Meeting South Gloucestershire's housing requirement is likely to require significant land take, which may result in the loss of high-quality agricultural land or areas of Green Belt in the District. As such, minor negative effects are expected in relation to SA objectives 5g: **land use** and 7a: **Green Belt**. Significant positive effects are expected for potential priority 5 in relation to SA objective 5f: **land use** and SA objective 7a: **green belt** given that it supports the optimisation of development density and development of brownfield sites. It also supports a commitment to ensuring the long-term purpose and function of valuable areas of Green Belt is maintained. Commitments to Green Belt also include enhancement of its recreational value. This may give rise to increased access to public open space for residents and therefore a minor positive effect is expected in relation to SA objective 2a: **open space**.
- 4.19 The land take required to deliver housing is likely to increase the amount of impermeable surfaces on previously undeveloped land, which may give rise to increased flood risk. Therefore, minor negative effects are expected for potential priority 6 in relation to SA objective 5h/5i: **flood risk** and SA objective 1b: **climate change adaptation**. The effects identified are uncertain as flood risk will be dependent on the design of new development and the potential incorporation of Sustainable Drainage Systems (SuDS).
- 4.20 The delivery of housing within the District is likely to result in increased car use to access essential services and employment. This is likely to result in increased carbon emissions and potentially reduced air quality in the District. Therefore, minor negative effects are expected for potential priority 6 in relation to SA objectives 1a: **climate change mitigation** and 2c: **air quality**. The effects identified are uncertain as they will be dependent on the exact location of developments within the District, and how well they relate to locations of employment and key services.
- 4.21 Conversely, potential priority 4 is expected to result in minor positive effects in relation to SA objectives 1a and objective 1b given its support for new buildings to mitigate and adapt to climate change through effective design. Minor positive effects are also expected for potential priority 4 in relation to SA objectives 2c: **air quality** and 2b: **noise** due to the promotion of walkable and cyclable neighbourhoods. This approach may mitigate poor air quality and noise pollution arising from a reliance on private car use. Potential priority 5 is likely to have minor positive effects in relation to SA objectives 1a and 2c given that it would optimise density of development and provide a range of uses in urban areas which is likely to reduce the need to travel by private vehicle.
- 4.22 Potential priority 6 is committed to ensuring sites are allocated to deliver sufficient homes to meet the need identified in the West of England Spatial Development Strategy. This is to include a range of housing and delivery types as well as affordable housing. Therefore, significant positive effects are identified for this priority in relation to SA objective 3a/3b: **housing**. Minor positive effects are identified for potential priority 4 and 5 in relation to this SA objective given their potential to contribute to high quality, adaptable and sustainable housing developments. Potential priority 5 also seeks to support the regeneration of urban locations and sharing of growth and prosperity across appropriate rural communities. Potential priority 6 is supportive of affordable housing in the plan area which will ensure access to housing for a wider proportion of residents. Therefore, significant positive effects are expected for all three potential priorities in relation to SA objective 3f: **deprivation**.
- 4.23 The delivery of residential development sites through potential priority 6 may support the delivery of new healthcare, community facilities, education and retail. These types of provisions are also supported through potential priority 5 given that it promotes the delivery of a range of uses in urban areas. Therefore, minor positive effects are expected for these potential priorities in relation to SA objectives 2d: **access to healthcare services** and 3c, 3d and 3e: **access to community facilities, education and retail**. For potential priority 6, uncertain minor negative effects are also expected in relation to these SA objectives as there is potential for existing services and facilities to become overburdened as new development is occupied, but this will

depend on the exact scale and locations of sites. Potential priority 4 could help improve access to these types of services as well as jobs, by ensuring the creation of walkable and cyclable neighbourhoods. Therefore, minor positive effects are also expected for these SA objectives as well as SA objective 4b: **access to major employment areas** in relation to priority 4.

Potential priorities 7 to 9

- 4.24 The summary of the expected sustainability effects appraisal for potential priorities 7 to 9 is presented in **Table 4.3** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.3 Summary of sustainability effects for the potential priorities 7 to 9

SA Objective	7. Enable a productive, clean and inclusive economy	8. Achieving sustainable travel and transport	9. Ensuring the timely and efficient provision of infrastructure to support growing communities
1a Contribution to climate change	+/-?	++	+
1b Adaptation to climate change	0	0	0
2a Public open space	0	0	+
2b Noise	0	+	0
2c Air quality	+/-?	+	+
2d Access to healthcare services	0	+	++
3a/3b Housing	0	0	+
3c/3d/3e Access to community facilities, education and retail	0	+	++
3f Deprivation	+	+	+
3g Digital connectivity	++	0	+
4a New employment floorspace	++	+	+
4b Access to major employment areas	++	+	+
5a/5b Historic environment	0	0	0
5c Biodiversity	0	0	0
5d Landscape	0	0	0
5e Green infrastructure	0	0	0
5f/5g Land use	+	0	0
5h/5i Flood risk	0	0	0
5j Water resources	0	0	+
6a/6b Waste and resources	0	0	0
7a Green Belt	0	0	0

- 4.25 Negligible effects are expected for the potential priorities in relation to a number of SA objectives given their respective focus on the economy, transport and infrastructure. A number of positive effects have been identified, including significant positive effects where the potential priorities directly align with the SA objectives against which they have been appraised.
- 4.26 A significant positive effect is expected for potential priority 7 in relation to SA objective 4a: **new employment floorspace** given its commitment to meeting the employment needs identified by the West of England Spatial Development Strategy. Potential priority 7 seeks to ensure that there is a range of safeguarded employment land across the District that all communities can access. Therefore, a significant positive effect is also expected in relation to SA objective 4b: **access to major employment areas**. Given that potential priorities 8 and 9 would provide the transport links and infrastructure needs to support the new employment sites and existing major employment sites in the plan area, minor positive effects are expected in relation to SA objectives 4a and 4b for these priorities.
- 4.27 Potential priority 7 also seeks to enhance digital connectivity across the area and therefore a significant positive effect is expected in relation to SA objective 3g: **digital connectivity**. Potential priority 9 is also likely to support digital connectivity in South Gloucestershire by ensuring that all development is accompanied by appropriate infrastructure. Therefore, a minor positive effect is identified in relation SA objective 3g for potential priority 9. Furthermore, the delivery of supporting infrastructure will be important to ensure the liveability of new housing. Therefore, a minor positive effect is expected in relation to SA objective 3a: **housing**.
- 4.28 Potential priority 8 seeks to direct growth to locations that are in close proximity to existing or new services and facilities, as well as creating neighbourhoods which are well suited to walking and cycling. Furthermore, it also supports effective public transport connections, improved travel planning and infrastructure for alternative fuel-vehicles. Therefore, a significant positive effect is expected in relation to SA objective 1a: **climate change mitigation**. Potential priorities 7 and 9 also have the potential to contribute to mitigating carbon emissions through their commitments to encouraging a 'green' economic recovery and directing development to locations that are well served by services and facilities, respectively. However, for potential priority 7 an uncertain minor negative effect is expected in combination. The delivery of new employment land is likely to give rise to some level of increased traffic and therefore increased carbon emissions. However, this will be dependent on the exact location and scale of development.
- 4.29 All three potential priorities may contribute to mitigating poor air quality in the District through their support for reducing reliance on private car transport and therefore minor positive effects are expected in relation to SA objective 2c: **air quality**. However, as noted above in relation to carbon emissions, the employment development supported through potential priority 7 may also give rise to decreased air quality due to increased overall traffic. As such, an uncertain minor negative effect is expected in relation to SA objective 2c.
- 4.30 The aspirations to deliver walkable and cyclable neighbourhoods through potential priority 8 may contribute to less noise pollution due to reduced levels of private car travel. Therefore, a minor positive effect is expected in relation to SA objective 2b: **noise**. Potential priority 9 states that new development should support open space provision. As such, a minor positive effect is expected in relation to SA objective 2a: **open space**.
- 4.31 Potential priorities 8 and 9 are likely to increase residents' access to key services and facilities through well located growth, effective sustainable transport links and sufficient supporting infrastructure. This would include education, healthcare and other community facilities. Therefore, positive effects are expected for these potential priorities in relation to SA objectives 2: **access to healthcare services** and 3c, 3d and 3e: **access to community facilities, education and retail**. Given that potential priority 9 seeks to ensure that sufficient service provision is made to support growing communities in the plan area the positive effect is expected to be significant. The new infrastructure that potential priority 9 is supportive of is likely to help ensure wastewater treatment works do not become overburdened as new development occurs over the plan period. A minor positive effect is therefore expected in relation to SA objective 5j: **water resources**.

4.32 The support these three potential priorities provide in terms of the delivery of employment and services and facilities and increased access to such areas is likely to support regeneration and provide benefits to many sections of the community. Therefore, minor positive effects are expected for potential priorities 7, 8 and 9 in relation to SA objective 3f: **deprivation**.

Recommendations

4.33 Through future stages of preparing the Local Plan, the Council could consider including explicit reference to the promotion of green infrastructure through potential priority 1 and the multifunctional role these types of provisions can play in terms of climate change adaptation and mitigation. It is noted that reference to green infrastructure is included through potential priority 2 but it also has an important role to play in relation to climate change. It is suggested that through future stages of preparing the Local Plan reference to the benefits green infrastructure can provide for carbon sequestration, in terms of storing carbon in soils and vegetation, is also made explicit.

Potential 'building blocks' for the plan

4.34 The Local Plan 2020 Phase 1 document presents initial spatial 'building blocks' for investigation that could be used to form part of a new growth strategy. These may be used to guide and inform locations that may have the potential to be considered as realistic options for the sustainable development of new homes, jobs, key services, facilities and infrastructure in South Gloucestershire.

4.35 The five building blocks considered are:

- Building block 1 - existing urban areas;
- Building block 2 - expanding our main urban areas through small or large urban extensions;
- Building block 3 - growth around our market towns;
- Building block 4 - rural villages and settlements; and
- Building block 5 - large scale free standing new settlements.

4.36 The summary of the expected sustainability effects appraisal for the five building blocks is presented in **Table 4.4** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.4 Summary of sustainability effects for building blocks for the plan

SA Objective	Building block 1 - urban areas	Building block 2 - urban extensions	Building block 3 - market towns	Building block 4 - rural settlements	Building block 5 - new settlements
1a Contribution to climate change	++	++/-	+/-	+/--	++/--
1b Adaptation to climate change	+	+	+	+	+
2a Public open space	+/-?	+/-	+	+	+
2b Noise	+/-	+/--	+/-	+/-	+/--
2c Air quality	++/--	++/--	+/-	+/--	++/--
2d Access to healthcare services	++/-?	++	+/-	+/--	++/--
3a/3b Housing	0	0	0	0	0

SA Objective	Building block 1 - urban areas	Building block 2 - urban extensions	Building block 3 - market towns	Building block 4 - rural settlements	Building block 5 - new settlements
3c/3d/3e Access to community facilities, education and retail	++/-?	++/-?	+/--?	+/--	++/--
3f Deprivation	++/-?	++	+	+/--	+
3g Digital connectivity	+	+/-?	+	-?	+/-
4a New employment floorspace	0	+	+	0	++
4b Access to major employment areas	++	++	+/-	+/--	+/--?
5a/5b Historic environment	--?	-?	-?	--?	?
5c Biodiversity	-?	--?	--?	--?	--?
5d Landscape	-?	-?	--?	--?	--?
5e Green infrastructure	+/-?	++	+	+	++?
5f/5g Land use	+	--	-	--	--
5h/5i Flood risk	-	-	--	--	-?
5j Water resources	0	0	0	-	?
6a/6b Waste and resources	0	-?	-?	-?	?
7a Green Belt	0	--	-	--	--?

- 4.37 The delivery of new development in the plan area will inevitably result in an increased number of journeys being made to access employment and services and facilities. Where development occurs in the existing urban area (building block 1) there will be increased potential for travel by public and active travel. Therefore, a significant positive effect is expected in relation to SA objective 1a: **contribution to climate change** and 2c: **air quality**. Given that this approach may help to limit the potential for increases in noise pollution associated with travel by private car, a minor positive effect is expected in relation to SA objective 2b: **noise**. A significant negative effect is expected in combination for SA objective 2c given that the Bristol urban fringe, contains or is in close proximity to AQMAs declared at Staple Hill, Kingswood-Warmley and along the M32 and Gloucester Road. Furthermore, concentrating a high level of development within the existing urban area may result in existing residents being subject to increased noise pollution from any incremental increases in traffic as well as during periods of construction. Therefore, an uncertain minor negative effect is expected in combination for SA objective 2b.
- 4.38 Building block 2 (urban extensions) would have similar effects to building block 1 in relation to SA objectives 1a and 2c. However, a minor negative effect is expected in combination with the significant positive effect for SA objective 1a due to the comparatively lower level of access to employment opportunities within the Bristol East Fringe. There are also congestion issues within some of the Bristol fringe areas and residents at new urban extensions would have to travel through these areas to access services and facilities. The longer journey times from urban extension locations to key employment sites in the Bristol urban fringe is likely to increase the potential for noise pollution to affect a large number of existing residents. Therefore, the minor positive effect expected in relation to SA objective 2b for building block 2 is combined with a significant negative effect. There is potential for the adverse impacts identified to be mitigated through large scale urban extensions through this building block considering that the scale of development could support new services and facilities and jobs in the longer term.

- 4.39 Building block 3 (market towns) would provide residents with some level of access to employment and services and facilities at the market towns of Yate, Chipping Sodbury and Thornbury. However, Thornbury lacks access to a railway station as well as Enterprise Areas. Yate provides some local employment opportunities and residents here can access a railway station. These locations are not near to any AQMAs. Overall mixed minor positive and minor negative effects are expected in relation to SA objectives 1a, 2b and 2c for this building block.
- 4.40 Providing small and medium scale development at more rural locations (building block 4) is likely to result in an increased number of residents having to travel longer distances to access employment and services and facilities. This approach could help to prevent some rural service stagnation and support the viability of rural bus services, however, an overall increase in car usage is likely. Therefore, mixed effects are expected in relation to SA objectives 1a: contribution to **climate change**, 2b: **noise** and 2c: **air quality** for building block 4. Considering the impact likely in relation to carbon emission and air pollution, the negative effect expected in relation to SA objectives 1a and 2c is likely to be significant.
- 4.41 Providing new settlements in South Gloucestershire (building block 5) is likely to secure a level of development which could support substantial new service provision, reducing the need for new residents to travel in the longer term. However, new residents are likely to need to travel to existing settlements in the early stages of development until new services are provided. Furthermore, the scale of development is likely to require substantial new infrastructure provision and construction may cause localised noise pollution. Therefore, although significant positive effects are expected in relation to SA objectives 1a: **climate change** and 2c: **air quality** for building block 5, these are combined with significant negative effects. The minor positive effect expected in relation to SA objective 2b: **noise** is also combined with a significant negative effect.
- 4.42 Some green spaces with the Bristol urban fringe suffer from existing connectivity issues and require further investment. Furthermore, the presence of the significant road infrastructure in this area means that residents may be affected by severance/physical barriers when accessing certain areas. A mixed minor positive and minor negative effect is therefore expected in relation to SA objective 2a: **public open space** for building blocks 1 and 2. The overall effect for building block 1 is uncertain given that concentrating new development within the urban area may result in some open spaces being required for development. The market towns in the plan area all provide access to some open space. Furthermore, while some of the rural villages (such as Rudgeley and Aust) do not provide immediate access to designated open spaces, there is likely to be good access to the open countryside from these locations. It is expected that the establishment of new settlements would provide opportunities for the incorporation of high quality and suitable levels of open space. Therefore, minor positive effects are expected for building blocks 3, 4 and 5.
- 4.43 By focussing development within the existing urban area to support investment in urban town centre locations, building block 1 is likely to help ensure a high number of residents have access to existing services and facilities. Some of the areas included through this option also provide access to further education opportunities and furthermore are well related to additional existing services within the City of Bristol. The potential to help achieve the ambitions of a 'green economic recovery' and wide-scale regeneration while also providing nearby access to a wide range of services and facilities through building block 1 means that significant positive effects are expected across SA objectives 2d: **access to healthcare services**, 3c, 3d and 3e: **access to community facilities, education and retail** and SA objective 3f: **deprivation**. It should also be noted that some of the highest levels of deprivation in the District are found in the Bristol North Fringe and Bristol East Fringe including at Patchway (within the 30% most deprived) and Staple Hill (within the 20% most deprived). New development focussed within or in close proximity to these urban areas is likely to help address existing issues of deprivation. Uncertain minor negative effects are expected in combination in relation to these SA objectives for building block 1 given that the delivery of a large amount of new development could result in some overburdening of existing facilities.
- 4.44 The scale of development supported at urban extensions through building block 2 is likely to support substantial new service provision which could help to limit the potential for overburdening of existing facilities to occur. Significant positive effects are also expected for building block 2 in

relation to SA objectives 2d, 3c/3d/3e and 3f. However, considering the issues of congestion in the Bristol East Fringe in particular and the lack of some specific facilities (including further education) and rail connections in this area, an uncertain minor negative effect is expected in combination for building block 2 in relation to SA objective 3c, 3d and 3e: **access to facilities**.

- 4.45 The market towns of South Gloucestershire provide access to a more limited range of services and facilities than the urban areas. These areas benefit from access to retail uses as well as some community uses at town centre locations. Primary and secondary schools are also at these locations, however, further education is not provided. While these areas benefit from frequent bus services towards Bristol, rail services which might otherwise provide access to services and facilities further afield, are only accessible from Yate. Therefore, a mixed minor positive and minor negative effect is expected in relation to SA objective 2d: **access to healthcare** and a mixed minor positive and significant negative effect is expected in relation to SA objectives 3c, 3d and 3e: **access to facilities**. The provision of development at the market towns could help support some level of regeneration, but these settlements do not contain areas within the 30% most deprived in England. Therefore, a minor positive effect is expected in relation to SA objective 3f: **deprivation**.
- 4.46 Building block 4 is likely to place a relatively high number of residents at South Gloucestershire's rural villages and settlements, some of which lack access to essential services and facilities (including schools and healthcare). These areas also do not provide access to town centre locations where the strongest retail offer is available. New development may support some new service provision, however, this is likely to be relatively limited given the small to medium scale of much of this element of growth. Overall mixed minor positive and significant negative effects are expected in relation to SA objective 2d: **access to healthcare** and SA objectives 3c/3d/3e: **access to facilities** for building block 4. Considering that this approach could help to address some issues of rural deprivation but that some new residents could experience issues of deprivation in terms of access to required services and facilities at rural locations in the longer term, a mixed minor positive and significant negative effect is expected in relation to SA objective 3f: **deprivation** for building block 4.
- 4.47 Building block 5 presents an opportunity to secure large scale growth to support substantial new service provision in the plan area. However, new residents may lack access to certain types of provisions in the early stages of development depending on the phasing of development. Therefore, mixed significant positive and significant negative effects are expected in relation to SA objectives 2d: **access to healthcare** and 3c, 3d and 3e: **access to facilities**. This approach could also help to address deprivation in terms of supporting access to services and facilities in rural areas which currently suffer from these issues. However, this will be dependent upon the specific siting of new development. New settlements would also need to be provided to avoid adverse impacts on the viability of existing town centre locations in the plan area. This building block would also do little to address deprivation within the most adversely affected communities in South Gloucestershire. Therefore, the positive effect expected for building block 5 in relation to SA objective 3f: **deprivation** is likely to be minor.
- 4.48 As identified on the Ofcom broadband availability map¹¹, much of the urban area and the market towns of the District benefit from the ability to connect to ultrafast or superfast broadband¹². However, there are smaller areas where this level of service is not available. Minor positive effects are expected in relation to SA objective 3g: **digital connectivity** for building blocks 1, 2 and 3. Given that only a lower level of service is available at parts of the northern edge of the urban area, the minor positive effect expected for building block 2 is combined with an uncertain minor negative effect. Poorer levels of access to infrastructure which supports faster speeds of broadband are present in many of the more rural villages and settlements and therefore a minor negative effect is expected for building block 4. Building block 5 would provide large scale development that would support substantial infrastructure improvements. Therefore, a minor positive effect is expected in relation to SA objective 3g. As some residents may lack access to

¹¹ <https://checker.ofcom.org.uk/broadband-coverage>

¹² Defined as download speeds of greater than 500Mbps and 80Mbps, respectively.

higher speeds of broadband in the earlier stages of development in particular, a minor negative effect is expected in combination.

- 4.49 The scale of growth supported through building block 5 (new settlements) is likely to allow for the incorporation of new employment land. This is also likely to be the case for building blocks 2 (urban extensions) and 3 (market towns). Positive effects are therefore expected in relation to SA objective 4a: **new employment floorspace**. The large amount of development to be provided through building block 5 means that the positive effect for this option is likely to be significant. Negligible effects are expected for building blocks 1 and 4 given the more limited capacity for development within the existing urban area and at the rural villages and settlements.
- 4.50 The existing urban area is well related to the existing Enterprise Areas and sites which are safeguarded for employment development. Access via rail and frequent bus services is also available from much of this area. Therefore, significant positive effects are expected in relation to SA objective 4b: **access to major employment areas** for building blocks 1 and 2. At the market towns there is no immediate access to the existing Enterprise Areas, however, Chipping Sodbury, Yate and Thornbury all contain existing safeguarded employment sites. Therefore, a combined minor positive and minor negative effect is expected for building block 3.
- 4.51 Some of the rural villages and settlements are relatively well related to the existing Enterprise Areas. Most notably, this includes settlements to the south west such as Easter Compton, Hallen, Pilning and Severn Beach, all of which are close to Severnside Enterprise Area. However, the majority of settlements included through building block 4 are more isolated from employment sites and sustainable transport is less frequent. Therefore, an overall mixed minor positive and significant negative effect is recorded in relation to SA objective 4b. Providing a new settlement in the plan area could result in new residents having to travel longer distances to existing larger employment sites. This will be dependent upon the specific siting of any development. Therefore, an uncertain significant negative effect is expected for building block 5 in relation to SA objective 4b. This effect is combined with a minor positive given that the scale of development could support new sustainable transport links to the larger employment sites in the District.
- 4.52 New development in the plan area is likely to have impacts on the natural and built environment of South Gloucestershire. The urban area contains a high concentration of heritage assets and development within its existing boundary and development could affect the setting of a number of assets including listed buildings and conservation areas. A significant negative effect is expected in relation to SA objectives 5a/5b: **historic environment** for building block 1. A minor negative effect for building blocks 2 and 3 is expected given potential to deliver growth at the edge of the existing urban areas and market towns in a manner which would avoid more substantial impacts on heritage assets in the plan area. There is potential for impacts on the settings of heritage assets through these two options. Thornbury in particular is noted to be relatively constrained to the west where there are a number of listed buildings and a conservation area designated. Some of the rural villages and settlements contain only smaller numbers of heritage assets and there is potential for development to be of a small or medium scale which could limit the potential for adverse impacts on heritage assets. However, some of these settlements (such as Acton Turville, Marshfield and Wickwar) are almost entirely designated as conservation areas. Considering their less developed character, these settlements are less likely to be able to accommodate new development without significant harm to existing character. Therefore, a significant negative effect is expected in relation to SA objective 5a/5b for building block 4 (rural settlements). The effects of providing a new settlement in the plan area (building block 5) in terms of the built historic environment will be greatly influenced by its physical relationship to and intervisibility with heritage assets, which will not be known until the location of the new settlement is identified, therefore an uncertain effect is recorded for building block 5. However, as the specific locations of development at any of the building blocks is currently unknown an uncertain effect is added to all building blocks in relation to SA objective 5a/5b.
- 4.53 The land take required through all options considered is likely to have impacts in relation to habitat provision and connectivity as well as landscape character. Development delivered within the existing urban area is considered least likely to result in increased pressures on undisturbed areas of importance for ecology and landscape. There is potential for important ecological corridors through the urban area to be affected, however, this might be mitigated through

appropriate design measures and the incorporation of green infrastructure. Therefore, uncertain minor negative effects are expected for building block 1 in relation to SA objectives 5c:

biodiversity and 5d: **landscape**.

- 4.54 Through building blocks 2, 3 and 4 greenfield land take could occur at areas which were previously relatively undisturbed. Much of the land in the plan area to the north and east and away from the strategic road network has been identified as having high landscape sensitivity. There are, however, areas of medium and medium to high sensitivity at the north and east edges of the urban area. Therefore, while negative effects are expected in relation to SA objective 5d: **landscape** for building blocks 2 to 4, the effects are expected to be significant for building blocks 3 (market towns) and 4 (rural settlements). For building block 4 this could include development within the Cotswolds AONB to the east which could be detrimental to the special qualities of this designated landscape. Furthermore, development through these options has the potential to result in impacts on SSSIs in close proximity to the urban edge, market towns and rural villages and settlements. At the urban area and market towns this includes Cattybrook Brickpit, Winterbourne Railway Cutting, Barnhill Quarry and Buckover Road Cutting. Incremental development across the rural villages and settlements could place additional development in close proximity to the internationally designated Severn Estuary sites. Therefore, significant negative effects are expected in relation to SA objective 5c: **biodiversity** for building blocks 2 to 4.
- 4.55 While the specific location of any new settlement will influence the impacts on the natural environment including those on landscape character, concentrated greenfield land take could have adverse impacts. Impacts will also be influenced by the specific design of any proposal which comes forward, which is unknown at this stage. Uncertain significant negative effects are therefore recorded in relation to SA objectives 5c and 5d for building block 5.
- 4.56 All building block options considered would provide the opportunity to incorporate new green infrastructure. Development within the urban area (building block 1) would provide opportunities to incorporate green infrastructure, however, the higher densities of development to be achieved could mean some pressures may result on existing green infrastructure. A mixed minor positive and minor negative effect is therefore expected in relation to SA objective 5e: **green infrastructure**.
- 4.57 Buildings block 2 (urban extensions) and 5 (new settlements) would provide the greatest opportunities to deliver new development in a manner which allows for green infrastructure to be positively incorporated from the beginning of development due to the larger scale of sites likely to be implemented. Building block 2 provides the added benefit of allowing for links to be established to green infrastructure in the urban area which could strengthen the functions it provides. Therefore, significant positive effects are expected for building blocks 2 and 5 in relation to SA objective 5e. The effect for building block 5 is uncertain given the reduced potential to enhance green infrastructure functions in urban areas. Building blocks 3 (market towns) and 4 (rural settlements) are expected to be implemented through a number of smaller sites at different locations. These options are expected to provide some opportunities for green infrastructure provision and could allow for strategic links to be made to the assets in the open countryside. Therefore, minor positive effects are expected in relation to SA objective 5e for building blocks 3 and 4.
- 4.58 The high level of greenfield land take required for urban extensions and a new settlement means that significant negative effects are expected in relation to SA objectives 5f/5g: **land use** for building blocks 2 and 5. Much of the land to the north and east of the urban area comprises Grade 3 agricultural soils (Grade 3a is high). However, there are some areas of the highest Grades 1 and 2 soils which might be affected by development. Given that the impact of new settlements on higher value soils is unknown until specific locations are identified, the effect for building block 5 in relation to SA objectives 5f/5g is uncertain. Development around Thornbury could have particularly adverse impacts on availability of Grade 2 agricultural soils in the plan area and therefore a significant negative effect is also expected for building block 3 (market towns) in relation to SA objectives 5f/5g. The less developed nature of the rural villages and settlements means that there is expected to be reduced potential for the development of brownfield land at these locations. The level of development focussed at any one location through building block 4, however, is expected to be more limited. Furthermore, only a small number of

settlements (such as Acton Turville) are within areas of Grade 2 agricultural soils. A minor negative effect is therefore expected in relation to SA objectives 5f/5g for building block 4. Building block 1 would provide development within the existing urban area and would seek to make use of brownfield sites and achieve optimum levels of density at new development. This is likely to help achieve a particularly efficient approach to land use and avoid any loss of higher value agricultural soils. Therefore, a significant positive effect is expected in relation to SA objectives 5f/5g.

- 4.59 While the urban area and its edges are relatively free from areas of fluvial flood risk, there are areas which are at risk from groundwater flooding. The extension of the urban area would result in substantial greenfield land take and increase the area of impermeable surfaces. Within the urban area, the intensification of existing density levels will need to be undertaken to avoid increases in local flood risk. The incorporation of SuDS is likely to help promote this aim. Considering these factors, minor negative effects are expected for building blocks 1 and 2 in relation to SA objectives 5h/5i: **flood risk**.
- 4.60 Development at Thornbury would need to be provided in a manner to limit the potential for increasing flood risk to those communities to the west of the settlement. There are also areas susceptible to groundwater flooding within Yate. A significant negative effect is therefore recorded in relation to SA objectives 5h/5i: **flood risk** for building block 3 (market towns). Building block 4 (rural settlements) would include areas susceptible to groundwater flooding and would also increase the potential for development to occur within flood zones associated with the River Severn to the west. This includes parts of the settlements of Aust, Hallen, Pilning, Severn Beach and Oldbury-on-Severn. A significant negative effect is expected in relation to SA objectives 5h/5i for building block 4. While the location of the any new settlement through building block 5 is currently unknown, the high level of greenfield land take would greatly increase the amount of hard surfacing in the plan area and reduce infiltration capacity. Therefore, an uncertain minor negative effect is expected in relation to SA objectives 5h/5i.
- 4.61 South Gloucestershire is relatively unaffected by source protection zones (SPZs) and Drinking Water Safeguard Zones. However, development to the east of the District, at the rural settlements of Acton Turville, Hawkesbury Upton, Horton and Old Sodbury has the potential to fall within SPZs which could have implications for water quality in the plan area. Therefore, while negligible effects are expected for the majority of building blocks, building block 4 is likely to have a minor negative effect in relation to SA objective 5j: **water resources**. The unknown location of any new settlement in South Gloucestershire means that the effect of building block 5 is uncertain. The specific location of development is unlikely to affect the availability of water resources, given that this will depend on the incorporation of sustainable construction and water efficiency measures which will be established through policy requirements for new development. New development in the plan area is also expected to be supported by provision of new wastewater treatment (WwT) infrastructure where capacity issues are identified. There may be a requirement for WwT infrastructure to allow for the inclusion of appropriate phosphate/nitrate/nutrient stripping facilities given that some water bodies in the plan area are currently exposed to significant levels of these types of pollutants.
- 4.62 The District contains several Mineral Safeguarding Areas (MSAs) which are focussed mainly towards its central and eastern portions. These designations cover the Bristol East Fringe, Yate, land to the south of Thornbury as well as land within the Cotswolds AONB. Smaller settlements such as Coalpit Heath, Winterbourne and Rangeworthy towards the centre and Hawkesbury Upton and Tormarton towards the east of the District all fall within these designations. Given the widespread coverage of MSAs within South Gloucestershire and the potential for development to result in adverse impacts on mineral resources, minor negative effects are expected in relation to SA objective 6a/6b: **waste and resources** for building blocks 2, 3 and 4. The effects are uncertain given that they will be influenced by the specific location of development and considering the potential to extract viable minerals prior to development at these locations. It is not expected that development within the existing urban area would adversely impact access to mineral resources in the District. Furthermore, the impact of delivering new settlements will be influenced wholly by their specific location which is currently unknown. Therefore, negligible and uncertain effects are recorded for building block 1 and building block 5, respectively.

- 4.63 The extent of the Green Belt in the District, which acts to maintain open land between the urban area towards the more northerly market towns and towards Keynsham and Bath to the south east, means that the majority of options are likely to require some release of land from this designation for development. The exception to this is building block 1, where development would occur wholly within the existing urban area. The negative effects expected in relation to SA objective 7a: **Green Belt** are likely to be significant for building blocks 2, 4 and 5. For building blocks 2 and 5 this reflects the large amount of land take at concentrated locations for urban extensions or a new settlement. The negative effect for building block 5 is uncertain given that the location of the potential new settlement is unknown.
- 4.64 For building block 4 the effects reflect the more incremental developments at numerous rural villages and settlements which could result in degradation of existing gaps between settlements. This could include development at 'washed over' settlements. It is noted that areas at the north of Chipping Sodbury, Thornbury and Yate are outside of the Green Belt. Therefore, the negative effect recorded for building block 3 in relation to SA objective 6a is minor.

Recommendations

- 4.65 Through future stages of preparing the Local Plan, as the approach for building block 1 is considered in more detail, the potential implications of overburdening of existing services and facilities, flood risk resulting from proliferation of hard surfaces and implications relating to impacts on residential amenity (including air quality and noise pollution) as well as on townscape and heritage assets should be given due consideration. The future stages of preparing the Local Plan will also need to ensure there is no undue loss of open spaces and other elements of green infrastructure through the approach for this building block as more development is delivered in the existing urban area.
- 4.66 The potential development of Green Belt land which would be required through building block 2 (urban extensions) (and to varying degrees through building blocks 3, 4 and 5) should also be considered through future stages of preparing the Local Plan in relation to the need to promote sustainable patterns of development as per the NPPF (paragraph 138). There will be a requirement to give first consideration to land which has been previously developed and/or is well-served by public transport. There will also be a need to set out ways in which the impact of removing land from the Green Belt can be offset through compensatory improvements to the environmental quality and the accessibility of remaining Green Belt land. This work could be aided by a review of how well the existing Green Belt is performing the five purposes it has been designated to serve.
- 4.67 When considering the location and size of potential urban extensions through building block 2, due consideration should be given to the potential to address existing capacity issues at services and facilities within the existing urban area. There will be a need to attempt to address the imbalance of job provision and existing issues of congestion within parts of the Bristol urban fringe which could be supported through this building block.
- 4.68 Due regard should also be given to the environmental constraints of the smaller settlements to the west, when considering building block 4. It will be important to consider the need to ensure that existing service at these locations are supported by an appropriate level of small scale growth. However, many of the settlements lie within areas of higher flood risk and are in close proximity to the Severn Estuary international biodiversity sites.
- 4.69 It is also recommended that when considering any potential delivery of a new settlement in the plan area through building block 5, benefits from this type of development might provide for residents at the more rural northern villages are given due weight. New large scale growth could help to provide better access to nearby services and facilities in the longer term.

Potential guiding principles for the growth strategy

- 4.70 The Local Plan 2020 Phase 1 document presents six, potential, guiding principles which might be used to inform the preparation of the new growth strategy for the Local Plan. These are principles

which might be used to assess the suitability of the different locations considered to accommodate new growth. They may also be used to ensure that the locations are consistent with the potential priorities of the plan. The potential guiding principles are:

- Locate new homes, jobs or settlements in places where key services and facilities are easily accessed by walking and cycling or effective public transport, or alternatively in locations where key services and facilities are capable of being provided as part of the new development.
- Sequential approach to building on areas at a high risk of flooding.
- Protect and enhance ecological, landscape and heritage designations and their settings.
- Protect and enhance the function and connectivity of Green Infrastructure and Nature Recovery Networks.
- Plan for a better balance between local jobs and resident workers in South Gloucestershire’s communities.
- Ensuring that ‘sense of place and character’ is protected when new development is planned for.

4.71 The summary of the expected sustainability effects for the principles is presented in **Table 4.5** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.5 Summary of sustainability effects for guiding principles for the growth strategy

SA Objective	Principle 1 – Sustainable access	Principle 2 – Flood risk	Principle 3 – Environment	Principle 4 – Green Infrastructure	Principle 5 – Employment	Principle 6 – Placemaking
1a Contribution to climate change	++	+/-?	+	+	++	0
1b Adaptation to climate change	0	++	+	++	0	0
2a Public open space	0	0	0	++	0	0
2b Noise	+?	+?	+?	+?	+?	0
2c Air quality	++	+/-?	+	+	++	0
2d Access to healthcare services	++	+/-	+	+	0	0
3a/3b Housing	0	0	-?	0	0	-?
3c/3d/3e Access to community facilities, education and retail	++	+/-	+	+	0	0
3f Deprivation	+	+/-?	+/-?	+	+	-?
3g Digital connectivity	0	0	0	0	0	0
4a New employment floorspace	0	0	-?	0	++	-?
4b Access to major employment areas	++	+	+	+	++	0
5a/5b Historic environment	-?	-?	++	0	0	++
5c Biodiversity	-?	+/-?	++	++	0	0

SA Objective	Principle 1 – Sustainable access	Principle 2 – Flood risk	Principle 3 – Environment	Principle 4 – Green Infrastructure	Principle 5 – Employment	Principle 6 – Placemaking
5d Landscape	-?	+/-?	++	++	0	++
5e Green infrastructure	0	0	0	++	0	0
5f/5g Land use	0	0	0	0	0	0
5h/5i Flood risk	-?	++	0?	+	0	0
5j Water resources	-?	+	0	+	0	0
6a/6b Waste and resources	0	0	0	0	0	0
7a Green Belt	-?	-?	0	0	0	0

- 4.72 The potential guiding principles set out in the Phase 1 document seek to inform the development of the new growth strategy for the District. Considering the high level required to effectively steer the strategy, the principles are likely to have impacts across a range of objectives, although the more focussed, single topic principles are unlikely to affect many of the SA objectives (e.g. Principles 5 and 6).
- 4.73 Given that the express goal of Principles 1 and 5 are to ensure nearby access to services and facilities and jobs, significant positive effects are expected in relation to SA objective 1a: **contribution to climate change**. Principles 2 and 3 are also expected to have positive effects in relation to SA objective 1a. These principles are likely to guide development to areas which align with those areas at which services and facilities and jobs are within close proximity which may reduce the need to travel by private vehicle and limit carbon emissions. The minor positive effect expected for Principle 2 is combined with an uncertain minor negative effect given that it could lead to the stagnation of services at some rural communities in areas of higher flood risk which could result in the need for some residents to travel longer distances. Principle 4 would also help to limit the need to travel by private vehicle through the delivery of green infrastructure which would support travel by active modes in South Gloucestershire. The positive effect expected in relation to SA objective 1a is likely to be minor for this principle.
- 4.74 Similar effects are expected for Principles 1 to 5 in relation to SA objective 2c: **air quality**. The similar range of effects identified, reflect the potential impacts these principles may have in terms of limiting the number of journeys being made by private vehicle and the implications of this for air quality. In general, Principles 1 to 5 are likely to positively impact the potential for noise pollution to affect a high number of residents in South Gloucestershire given that a high number of residents will have reduced need to travel long distances by car. Uncertain minor positive effects are therefore expected in relation to **2b: noise**.
- 4.75 Principles 1 to 3 are likely to help guide development to the more developed locations of the District. Principle 4 will support residents' access to these areas via active travel by encouraging green routes. Positive effects are therefore expected for SA objective 2d: **access to healthcare services** and SA objective 3c/3d/3e: **access to community facilities, education and retail**. The positive effect for Principle 1 is likely to be significant given its specific focus on delivering development where key services and facilities are easily accessed. As Principle 2 could result in some stagnation of service provision in more rural communities toward the River Severn which are at higher risk of flooding, the minor positive effect is expected to be combined with a minor negative effect.
- 4.76 It is likely that the need to protect biodiversity and landscape features as well as character of established communities in the plan area will make higher levels of residential development

challenging in some circumstances. Therefore, minor negative effects are expected in relation to SA objectives 3a/3b: **housing** for Principles 3 and 6. The negative effects are uncertain given the requirement for housing for the District (including affordable homes) may be met elsewhere in South Gloucestershire.

- 4.77 Ensuring access to services and facilities, as supported through Principle 2 and Principle 1 in particular, is likely to help address local issues of deprivation. Positive effects are therefore expected in relation to SA objective 3f: **deprivation**, with the effect for Principle 1 expected to be significant. For Principle 2 the minor positive effect is combined with an uncertain minor negative effect. This is because the principle would limit development in areas of higher flood risk which may include the rural communities towards the River Severn. Some stagnation of existing service provision might therefore result at these locations. Principles 3 and 4 are expected to achieve benefits in terms of health and well-being through improved access to green space and supporting opportunities to access and experience nature. These benefits could help to address health disparities in the plan area. Improved access to jobs is also expected to help address deprivation and this is supported through Principle 5. Minor positive effects are therefore recorded in relation to SA objective 3f for Principles 3, 4 and 5. As Principles 3 and 6 may limit housing development potential in some places due to protecting ecological, heritage and landscape designations and a 'sense of place and character', some residents' housing needs may not be met and uncertain minor negative effects have been recorded. This has led to an overall mixed effect for Principle 3.
- 4.78 The potential for Principles 3 and 6 to limit new development in the plan area is likely to include new employment uses. This is reflected in the uncertain minor negative effects recorded in relation to SA objective 4a: **new employment floorspace**. Principle 5 seeks directly to address lack of access to employment and therefore a significant positive effect is expected in relation to SA objective 4a. Given that Principle 5 is also directly aiming to ensure access to the existing major employment sites in the plan area a significant positive effect is also expected in relation to SA objective 4b: **access to major employment areas**. Principle 1 and to a lesser extent Principles 2 and 3 would help to direct development to the most developed areas of the District and therefore significant positive and minor positive effects are expected. By promoting the ability to travel via active travel, Principle 4 could also support access to existing major employment areas. Therefore, a minor positive effect is also expected for this principle in relation to SA objective 4b.
- 4.79 Principle 1 is expected to have uncertain minor negative effects in relation to SA objectives 5a/5b: **historic environment**, 5c: **biodiversity** and 5d: **landscape**. The more developed areas of South Gloucestershire contain the highest concentrations of heritage assets including within the north eastern and eastern Bristol fringe, and Yate, Chipping Sodbury and Thornbury where a number of conservation areas have been designated. Conversely, these more developed areas may be of less importance than areas of open and relatively undisturbed countryside in terms of biodiversity and landscape. However, areas which provide access to a high number of services and facilities at Yate and Chipping Sodbury are in close proximity to a number of SNCIs and a SSSI as well as the Cotswolds AONB. Furthermore, the route of the 35 bus service from Bristol towards Marshfield may result in some small amount of development within the AONB given the support through Principle 1 for development in areas which benefit from effective public transport.
- 4.80 Principle 2 could result in a similar distribution of development to Principle 1 given that the most developed locations which provide access to the widest range of services and facilities and transport links are located away from the areas of highest flood risk. The exception to this is the smaller settlements to the west where the railway stations of Pilning and Severn Beach are located and there are areas of increased flood risk associated with the River Severn. Uncertain minor negative effects are also expected for Principle 2 in relation to SA objectives 5a/5b, 5c and 5d. A minor positive effect is expected in combination for this principle in relation to SA objectives 5c and 5d as it could help to protect the integrity of the Severn Estuary international biodiversity sites as well as the character of smaller settlements within higher flood risk areas to the west.
- 4.81 Principle 3 would require the growth strategy for the plan area to protect and enhance ecological, landscape and heritage designations and their settings. Therefore, significant positive effects are expected in relation to SA objectives 5a/5b: **historic environment**, 5c: **biodiversity** and 5d:

landscape. The promotion of green infrastructure is likely to have benefits in terms of habitat provision and connectivity as well as limiting detrimental impacts on landscape character. Significant positive effects are therefore expected for Principle 4 in relation to SA objectives 5c and 5d, as well as SA objective 5e: **green infrastructure.** As Principle 6 directly seeks to protect local character and identity, significant positive effects have been recorded in relation to SA objectives 5a/5b and 5d.

- 4.82 The integration of green infrastructure as part of the approach to the growth strategy for the plan area is expected to help address flood risk and also support improved water quality. Therefore, minor positive effects have been recorded for Principle 4 in relation to SA objectives 5h/5i: **flood risk** and 5j: **water resources.** As Principle 2 directly addresses flood risk in the plan area through a sequential approach to development, a significant positive effect is expected in relation to SA objective 5h/5i. It is likely that reducing the potential for flooding will limit detrimental impacts on water quality, for example through runoff and the carrying of pollutants into the water supply. An uncertain minor positive effect is therefore expected for Principle 2 in relation to SA objective 5j. Principle 1 could have minor negative effects in relation to SA objective 5h/5i and 5j considering the potential for development to occur at areas which benefit from railway access to the west by Pilning and Severn Beach where there are areas of higher flood risk.
- 4.83 The focus of development to locations which are accessible to a high number of services and facilities is likely to require extensions to the Bristol urban area. This could require the release of some Green Belt land in South Gloucestershire. Given that Principles 1 and 2 are supportive of this approach to some degree, uncertain minor negative effects are expected in relation to SA objective 7a: **Green Belt.**

Recommendations

- 4.84 Through future stages of preparing the Local Plan, the Council may want to strengthen the potential guiding principles to better address the protection and promotion of health and wellbeing in the plan area. The supporting text of Principle 1 could be strengthened to make explicit reference to ensuring open space and community services are accessible as part of ensuring that key services and facilities are accessible. Presently this principle is focussed mainly on the role accessibility to key services and facilities can play in terms of reducing the need to travel, however, it should be emphasised that this approach can also help to promote physical health and reduce the potential for social isolation. As part of the approach to locating development in areas which benefit from access to key services and facilities, Principle 1 could also highlight the potential to pursue regeneration and address indicators of deprivation in this manner.

Options for Urban Lifestyles locations

- 4.85 The Local Plan 2020 Phase 1 document includes an approach to development in the urban areas of the District that is to help ensure that it is delivered in a manner to promote vibrant, healthy and safe places. This is described as the 'Urban Lifestyles' approach. The approach is considered across four broad locations at which it might be undertaken:
- The Communities of the Bristol North Fringe;
 - The Communities of the Bristol East Fringe;
 - Yate; and
 - Thornbury.
- 4.86 The appraisal of these locations in this SA Report has been undertaken with regard for the policy approach (i.e. the Urban Lifestyles approach) which is set out in the Phase 1 document. The key features of Urban Lifestyle development are summarised below:
- Designed to optimise density;
 - Provide a variety of uses;
 - Respond to existing local context and character;

- Reduced car parking provision integrated into design;
- Diverse range of dwelling types;
- Minimal impacts on existing residential properties in area;
- Access to private amenity space;
- More activity in the streets and surveillance over public realm from windows, balconies and fronts of properties; and
- Well designed public realm.

4.87 The summary of the expected sustainability effects appraisal for the four locations at which the Urban Lifestyles approach is being considered is presented in **Table 4.6** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.6 Summary of sustainability effects for options for Urban Lifestyles locations

SA Objective	North Bristol Fringe	Bristol East Fringe	Yate	Thornbury
1a Contribution to climate change	++	+/-	++/-	+/-
1b Adaptation to climate change	+	+	+	+
2a Public open space	+/-	+/-	+	+
2b Noise	+/-	+/-	+/-	+
2c Air quality	++/-	+/-	+/-	+?/-
2d Access to healthcare services	++	++?	++/-	+/-
3a/3b Housing	++	++	++	++
3c/3d/3e Access to community facilities, education and retail	++/-?	+/-?	+/-?	+/-?
3f Deprivation	++	++	+	+
3g Digital connectivity	+/-?	+?	+?	+?
4a New employment floorspace	+	+	+	+
4b Access to major employment areas	++	+/-	+/-	+/-
5a/5b Historic environment	+?/-	+?/-	+?/-	+?/-
5c Biodiversity	+?/-	+?/-	+?/-	+?/-
5d Landscape	+?/-	+?/-	+?/-	+?/-
5e Green infrastructure	++	++	++	++
5f/5g Land use	+	+	+	+
5h/5i Flood risk	+	+	+	+/-
5j Water resources	+	+	+	+
6a/6b Waste and resources	0	0	0	0
7a Green Belt	0	0	0	0

- 4.88 It is expected that the options for the Urban Lifestyles approach would have a range of effects across the SA objectives. These effects reflect both the general high level locations being considered as well as the potential mitigation of any adverse effects which is likely to be promoted through the adoption of the Urban Lifestyles approach.
- 4.89 It is expected that Urban Lifestyles development within the North Bristol Fringe would have a significant positive effect in relation to SA objective 1a: **contribution to climate change**. This area is well related to the Bristol urban area and benefits from regular rail and bus services. This includes railway stations at Patchway, Filton Abbey Wood and Bristol Parkway. The North Bristol Fringe provides access to a high number of job opportunities and services and facilities. Urban Lifestyles development within this area would provide access to the existing town centres and/or near to the existing public transport hubs (at Cribbs Causeway or UWE Bus Exchanges). The approach could therefore provide opportunities for enhancement of the existing town centres and key public transport links in the plan area. As with the other locations considered car parking would be minimised. These measures could further help to promote travel by sustainable modes. Of the other locations being considered, only Yate provides access to a railway station, while the remaining two locations benefit from regular bus services to the surrounding areas. Employment opportunities are not as prevalent in Thornbury in particular, which could result in some level of out commuting. The potential for any substantial increase in out commuting is likely to be offset through the incorporation of mixed use development as part of the Urban Lifestyle approach, although this is likely to be achieved in the longer term. Therefore, the minor positive effect expected in relation to SA objective 1a for Thornbury is combined with a significant negative effect.
- 4.90 The approach to Urban Lifestyle development is to incorporate green infrastructure which is likely to help promote adaptation to climate change. It is not expected that any one location will perform more favourably in this regard. Therefore, positive effects are expected in relation to SA objectives 1b: **adaptation to climate change** and 5e: **green infrastructure** for all four locations. The specific promotion of green infrastructure at the urban areas which will play an important part of the overall approach to the distribution of development in the plan area may allow for the creation of new large scale networks as development is provided. Therefore, the positive effect expected in relation to SA objective 5e is significant.
- 4.91 The benefits this approach could have in terms of promoting connectivity and protecting existing ecological networks in the area will depend partly on the design of new development. Therefore, the minor positive effect expected in relation to SA objective 5c: **biodiversity** is uncertain. All four broad locations are in relatively close proximity to national and local biodiversity sites. This includes Winterbourne Railway Cutting, Cleeve Wood and Bickley Wood SSSIs near the Bristol East Fringe, Cattybrook Brickpit SSSI near to the Bristol North Fringe, Buckover Road Cutting SSSI near Thornbury and Barnhill Quarry SSSI near Yate. New development is likely to result in some increased pressures from recreation, pollution or the fragmentation of ecological networks on these sites. Therefore, a negative effect is expected in combination in relation to SA objective 5c for all locations. The effect is minor considering that development would occur within the existing boundaries of each of the settlements considered.
- 4.92 The design of development to allow for access to open spaces is also part of the approach to Urban Lifestyle development. Therefore, new development is likely to have a minor positive effect in relation to SA objective 2a: **public open space**. For Bristol North Fringe and Bristol East Fringe a minor negative effect is expected in combination. Some green spaces in these areas suffer from connectivity issues and require further investment. New development is likely to provide opportunities to help address these issues, however, some residents may still be affected by issues of severance considering the high number of strategic roads in some locations within the Bristol urban fringe areas.
- 4.93 It is likely that providing for a variety of uses in line with the Urban Lifestyle approach will help to reduce the need to travel by car. Residents are less likely to have to travel longer distances to access jobs and services and facilities. This will help to limit noise pollution at the locations considered and therefore a minor positive effect is expected in relation to SA objective 2b: **noise**. The presence of the strategic road network (including the M4 and M5) and railway lines through or at the edge of the Bristol North Fringe and Bristol East Fringe means that amenity issues

relating to noise may result for new residents. Therefore, significant negative effects are recorded in relation to SA objective 2b for these locations. Yate also has a railway and an A-road passing through its developed area, but the areas affected by these features are not as widespread as at the Bristol urban fringe areas. Therefore, the negative effect expected for this location is minor.

- 4.94 It is likely that placing development in the Bristol North Fringe where there is a high number of jobs, good sustainable transport links as well as reasonable access to services and facilities will help limit air pollution from vehicular sources. However, the relationship between this area and the Bristol urban area means that increased traffic levels may result within the Bristol AQMA. The AQMA covers sections of the A38 and M32 into Bristol. Therefore, the significant positive effect expected in relation to SA objective 2c: **air quality** is combined with a significant negative effect for the Bristol North Fringe. There is increased potential for residents to need to commute from the East Bristol Fringe for work and the area also lacks existing access to rail stations, although benefits from stops served by the Metrobus. Congestion issues towards Staple Hill and Kingswood-Warmley where AQMAs have been declared also increase the potential for air quality impacts. Therefore, the minor positive effect expected in relation to SA objective 2c is combined with a significant negative effect.
- 4.95 AQMAs are not present in Yate or Thornbury. However, while Yate provides access to a relatively high number of local employment opportunities, both settlements are likely to require more employment provision to prevent high levels of out commuting. Neither area is well related to the Enterprise Areas in the District. Both areas are served by relatively frequent bus services, however, unlike Yate, Thornbury is not served by a railway station. Therefore, a mixed minor positive and minor negative effect expected in relation to SA objective 2c for both locations. The positive effect expected as part of the overall mixed effect for Thornbury is uncertain.
- 4.96 Given the nearby access to more substantial employment sites (including Enterprise Areas at Filton and further west at Severnside) a significant positive effect is expected in relation to SA objective 4b: **access to major employment areas** for the Bristol North Fringe. The Bristol East Fringe benefits from an Enterprise Area at Emersons Green Science Park, however, congestion issues limit ease of access to employment in this area. Furthermore, the ratio of jobs to residents is much less favourable than in the North Fringe which means a high number of residents have to travel out of the area for work. Of the two market towns, Yate provides stronger access to employment due to substantial areas of land to the west safeguarded for employment. Rail services from the town may provide residents with access to employment further afield. Therefore, a minor positive effect is expected in relation to SA objective 4b for the Bristol East Fringe and Yate due to some access to major employment areas, but this is combined with a minor negative effect as there may still be substantial out-commuting from both locations. For Thornbury a mixed minor positive and significant negative effect is expected in relation to this SA objective.
- 4.97 The Urban Lifestyle approach is to include a mix of housing adaptable over time to meet different needs. New development is to have sufficient internal space to allow for comfortable living. Furthermore, housing in all locations considered would help to meet the housing need for the plan area. Therefore, a significant positive effect is expected in relation to SA objectives 3a/3b: **housing**. This approach of achieving a high quality of development at which a mix of uses allows for nearby access to services and facilities and employment is likely to help address deprivation in South Gloucestershire. Some of the highest levels of deprivation in the District are found in the Bristol North Fringe and Bristol East Fringe. This includes areas of Patchway (with the 30% most deprived), Kingswood and Staple Hill (both within the 20% most deprived). These areas are in close proximity or include areas within the town centre locations where Urban Lifestyle development would be focused. Including a mix of uses which would allow for new service provision and employment space at these locations would directly help to address issues of deprivation. Therefore, the positive effect expected in relation to SA objective 3f: **deprivation** for Bristol North Fringe and Bristol North Fringe is likely to be significant. Given that the Urban Lifestyles approach is likely to address existing pockets of deprivation at the other locations considered, a minor positive effect is expected in relation to SA objective 3f. A minor positive effect is also expected for all four areas in relation to SA objective 4a: **new employment floorspace** given the potential to provide new employment as part of mixed use development.

- 4.98 The Urban Lifestyles approach is also expected to help improve the accessibility of community services and facilities, including healthcare and education. Therefore, positive effects are expected for all four locations in relation to SA objectives 2d: **access to healthcare services** and 3c, 3d and 3e: **access to community facilities, education and retail**. The approach of providing a higher density of mixed use development is likely to improve access to these types of services. However, consideration should also be given to the level of access currently provided at each location including the potential for existing services to become overburdened as new residential development is occupied. The Bristol North Fringe benefits from access to further and higher education facilities although there are some existing capacity issues. It is also well related to the Bristol urban area, with access via frequent bus services and rail where additional community facilities as well as hospitals can be accessed. There is a number of town centre locations within both Bristol Fringe areas, however, it is noted that regeneration of some of these locations is required. Overall a significant positive effect is expected in relation to SA objective 2d: **access to healthcare** for both the Bristol Fringe areas. The issue of congestion and lack of rail links in the Bristol East Fringe, means that the effect is uncertain. Given the need for the regeneration of town centre locations in these areas an uncertain minor negative effect is expected in relation to SA objectives 3c, 3d and 3e: **access to community facilities, education and retail**. The Urban Lifestyles approach will provide some scope to achieve this, however, it is likely that extensive improvements will only occur in the longer term. The stronger access to education facilities and presence of railway stations at the Bristol North Fringe means the positive effect recorded for this area is significant.
- 4.99 Yate and Thornbury both provide access to healthcare facilities but are less well related to hospitals in Bristol. Given that residents in Yate might make use of rail services for non-urgent hospital appointments, the positive effect expected in relation to SA objective 2d is likely to be significant, but it is combined with a minor negative effect. Both towns provide access to retail uses within their town centres. Community uses and primary and secondary schools can also all be accessed in these towns. However, further education is not provided. Rail links from Yate may support access to further education facilities but there are no rail links from Thornbury. Therefore, while a mixed effect is expected for both locations in relation to SA objectives 3c/3d/3e the negative effect recorded for Thornbury is likely to be significant.
- 4.100 It is expected that new development can connect to existing infrastructure to allow for necessary service provisions including broadband. This may support improvements to services existing residents currently have access to. As identified on the Ofcom broadband availability map¹³ the majority of the areas considered for the Urban Lifestyle approach benefit from potential to connect to ultrafast or superfast broadband services and will therefore have a minor positive effect in relation to SA objective 3g: **digital connectivity**. There are parts of the Bristol North Fringe within which only standard internet (download speeds less than 10Mbps) provision is currently available. Therefore, without upgrades to current infrastructure some new residents would have more limited digital connectivity than in other areas considered for the Urban Lifestyle approach. As such, an uncertain mixed minor positive and minor negative effect is expected in relation to SA objective 3g for the Bristol North Fringe.
- 4.101 All new development through the Urban Lifestyle approach is to be designed to be well related to the existing context and respond to features within the local area. This is to include protection of valuable landscape features, key views and vistas. An approach of this nature is expected to benefit local character, including the settings of heritage assets and existing landscape setting. An uncertain minor positive effect is therefore expected for all four locations in relation to SA objectives 5a/5b: **historic environment** and 5d: **landscape**. New development may provide opportunities to improve the setting of heritage assets and the relationship with the surrounding countryside, particularly where existing issues of neglect and potential decay have been identified in the Bristol East Fringe. All locations have potential to affect numerous heritage assets including Stoke Park and Oldbury Court Registered Park by the Bristol North and East Fringes. There are numerous conservation areas present with both of these areas as well as in Thornbury and near to Yate at Chipping Sodbury. The minor positive effects expected in relation to SA objectives 5a/5b are therefore combined with negative effects for all locations. A large area of Thornbury is

¹³ <https://checker.ofcom.org.uk/broadband-coverage>

covered by the Thornbury Conservation Area. This settlement is the least developed of the areas considered and therefore local character and the setting of the conservation area may be more susceptible to change. The negative effect recorded for this location in relation to SA objectives 5a/5b is therefore significant.

- 4.102 Much of the land surrounding all four locations has been identified as having high or medium-high sensitivity to development. With the exception of a small area of land towards the boundary of Chipping Sodbury which has medium sensitivity and some of land to the south west towards the Bristol Fringe, Yate is particularly constrained by areas of land with higher landscape sensitivity. Therefore, the negative effect expected in combination in relation to SA objective 5d: landscape for Yate is likely to be significant. It is noted that the Bristol East Fringe also lies in close proximity to the AONB in places, however, there are more extensive areas of medium sensitivity land at the edge of this location.
- 4.103 Through the Urban Lifestyles approach development should seek to make more efficient use of land by promoting higher but appropriate densities. This is expected to reduce the need for large areas of greenfield land to be developed. Therefore, a minor positive effect is expected in relation to SA objectives 5f/5g: **land use** for all four locations.
- 4.104 It is expected that the incorporation of green infrastructure could help to alleviate flood risk as new development is provided at all locations considered. Therefore, a minor positive effect is expected for all locations in relation to SA objectives 5h/5i: **flood risk**. Of the four areas considered, development at Thornbury presents the greatest potential to increase flood risk issues, particularly in the lower lying land to the west of the town. A minor negative effect is therefore expected in combination for Thornbury. None of the locations are within SPZs or Drinking Water Safeguard Zones. It also expected that green infrastructure provision could have long term benefits for water quality by limiting the amount of stormwater that reaches waterways and removing contaminants. A minor positive effect is therefore recorded for all locations in relation to SA objective 5j: **water resources**.
- 4.105 The focus of the Urban Lifestyles approach towards town centre locations and transport hubs is likely to mean development of land within MSAs or the Green Belt is likely to be minimal. However, it is noted that much of the Bristol East Fringe and Yate, as well as land to the south of Thornbury fall within MSAs. Furthermore, most of these locations are constrained in some way by Green Belt. The settlements of Yate and Thornbury are, however, less constrained than the Bristol Fringe areas with only land to the south falling within the Green Belt. Overall negligible effects are expected for all four locations in relation to 6a/6b: **waste and resources** and 7a: **Green Belt**.

Recommendations

- 4.106 Through future stages of preparing the Local Plan, the Council could strengthen the Urban Lifestyles approach to ensure that appropriate levels of affordable housing are provided at the locations where it would be applied. At present the approach to ensure a diverse range of living accommodation to cater to a range of potential residents is included. Housing prices in the plan area are currently above the average figure for England (the affordability ratio for the District is 8.8, compared to the national figure of 7.8¹⁴). Furthermore, while an overarching Urban Lifestyles approach will have many benefits which could be applicable to many parts of the urban areas of the District, due consideration should be given to the differing characters of the settlements included for this approach. While there are some overarching common themes between the Bristol urban fringe and the market towns, future stages of preparing the Local Plan may consider the need for the Urban Lifestyles policy or policies to address the differing characteristics of these areas.

¹⁴ In 2019 full-time employees in England could typically expect to spend around 7.8 times their workplace-based annual earnings on purchasing a home, while in South Gloucestershire the figure was 8.8.

Options for growth at rural communities in the context of the Green Belt

- 4.107 The Local Plan 2020 Phase 1 document sets out locations within its rural communities at which a development might occur over the plan period in the rural communities. These are:
- in and around all villages and settlements with a defined settlement boundary, or, recognised collections of dwellings, and areas around the edges of market towns; and
 - areas where sites have been identified through previous calls for sites, up to 200 metres from the edges of urban areas.
- 4.108 From this initial description of the potential approach for development within the rural communities, two options are explicitly set out in the context of potentially requiring development within the Green Belt. These are:
- Option 1: small to medium-scale growth in villages and settlements outside of the Green Belt only; and
 - Option 2: small to medium-scale growth in villages and settlements both outside and inside the Green Belt. Given the area covered by the Green Belt in the District, this option would include development in close proximity (within 200m) to urban area where sites have been identified through previous calls for sites.
- 4.109 The level of development to be delivered through both options is described in the Phase 1 document as 'small and medium-scale growth'. The Phase 1 document includes a definition of what is considered to be small and medium-scale growth and the appraisal of the two options in this SA Report is reflective of development which would be in line with this definition. The definition provided in the Phase 1 document for small to medium scale growth is summarised as follows:
- Appropriate and proportionate to the scale of existing rural communities;
 - Of a scale that would not cause significant harm to existing character and built, natural or community assets;
 - Of a scale that would not result in a strategic level change for any community and would not require the provision of additional strategic infrastructure.
- 4.110 The summary of the expected sustainability effects for the two options is presented in **Table 4.7** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.7 Summary of sustainability effects of options for growth at rural communities in the context of the Green Belt

SA Objective	Option 1 (outside Green Belt)	Option 2 (outside and inside Green Belt)
1a Climate change mitigation	+/--	++?/-
1b Climate change adaptation	+	+
2a Public open space	+	+
2b Noise	0	0
2c Air quality	+/--	++?/--
2d Access to healthcare services	+/--	++?/-
3a/3b Housing	+	+
3c/3d/3e Access to community facilities, education and retail	+/--	++?/-

SA Objective	Option 1 (outside Green Belt)	Option 2 (outside and inside Green Belt)
3f Deprivation	+	+
3g Digital connectivity	+	+/-
4a New employment floorspace	0	0
4b Access to major employment areas	+/--	++?/-
5a/5b Historic environment	-?	-?
5c Biodiversity	-?	-?
5d Landscape	--?	-?
5e Green infrastructure	+	+
5f/5g Land use	-	-
5h/5i Flood risk	+/-?	+/-?
5j Water resources	0	0
6a/6b Waste and resources	-?	-?
7a Green Belt	+	--

- 4.111 South Gloucestershire is a largely rural District and therefore there is a need to address housing needs in rural communities. However, this can potentially result in development being directed to rural locations where there is variable access to services and facilities including retail, community facilities and open spaces. The two options considered are likely to result in some new residents having to travel longer distances to access to services and facilities at the smaller settlements identified. Therefore, some adverse effects have been recorded in terms of healthcare, education, employment as well as air quality and climate change. However, given that option 2 includes settlements in the Green Belt which provide better access to urban areas in the District it is likely to result in fewer significant negative effects and more significant positive effects. If this option was to include small scale development near to the urban edge where sites have been previously been identified these residents would also benefit from higher levels of access to existing services and facilities and there is also potential for extension of existing sustainable transport networks.
- 4.112 For both options, the small to medium-scale of developments likely to be delivered at the rural settlements in question may not individually support investment in major new public transport schemes or substantial new services provision. However, it may be that combinations of smaller scale developments in close proximity to each other could secure investment to support public transport schemes or new services.
- 4.113 For option 1 (development outside the Green Belt), there is significant variation across potential locations at which development might be delivered. It is possible to access a range of services and facilities by walking and cycling or via regular public transport connections in Wickwar, Coalpit Heath, and Charfield. However, option 1 would also direct growth to smaller villages/ settlements with more limited access to key services and facilities (including Engine Common, Falfield, Hawkesbury Upton, Marshfield, Rangeworthy, Severn Beach and Tytherington) as well as some settlements (including Acton Turville, Badminton and Rockhampton) that are likely to require reliance on private car travel to meet every day needs, which will increase residents' carbon emissions. While development at these locations is unlikely to support substantial new service provision, it will be important to help prevent the stagnation of existing services and facilities at more rural settlements. Therefore, mixed minor positive and significant negative effects are expected for option 1 in relation to SA objective 1a: **climate change mitigation**, SA objective

2d: **access to healthcare** and SA objective 3c/3d/3e: **community facilities, education and retail**.

- 4.114 Option 2 directs small to medium-scale growth to locations within as well as outside the Green Belt and therefore includes a wider range of villages and settlements across South Gloucestershire. However, as with option 1, there is also offers varying levels of access to key services/facilities. Significant positive effects are identified for this approach in relation to SA objective 1a: **climate change mitigation** and the access related objectives (SA objectives 2d and 3c/3d/3e). This reflects the higher number of well-connected locations being identified between the urban fringes of Bristol and the market towns of Yate and Thornbury, compared to the locations outside of the Green Belt in option 1 in the north and east of the District. Locations included in option 2 which would help achieve benefits relating to good access and climate change mitigation include Almondsbury, Alveston, Hambrook and Longwell Green. These locations have relatively good existing service provision and are located on key bus routes.
- 4.115 The positive effects recorded are likely to be uncertain as these areas would not benefit from the same level of access to services and facilities within or at locations directly adjacent to the urban area. The significance of the positive effect would also depend on the overall distribution of development across these smaller settlements considering that existing service provision and levels of access to the urban areas are variable from these locations. By including some small scale development at sites within the Green Belt close to the urban area of the District, a proportion of new residents could have particularly good access to the wider range of services and facilities at these locations. This would potentially strengthen the positive effects recorded. Furthermore, development within the Green Belt could allow for new residents to benefit from infrastructure improvements or new services where these settlements are close enough together to support a relatively high level of development overall to allow for new provisions. This could be the case at settlements such as Winterbourne, Frampton Cotterell and Coalpit Heath given their close proximity. Minor negative effects are identified in combination for SA objectives 1a, 2d and 3c/3d/3e considering that this option would include locations at which connectivity is substantially more limited, including Elberton, Dyrham, Hinton and Oldbury-on-Severn.
- 4.116 Designated open spaces are present at the majority of settlements identified through both options. Most of these settlements will also allow for access to the open countryside. Therefore, minor positive effects are identified for both options in relation to SA objective 2a: **open space**. The approach of allowing for small to medium scale growth at these more rural settlements is likely to mean there would be opportunities to provide new green infrastructure to link to existing assets without undue pressures resulting on these features through both options. Therefore, minor positive effects are also expected for both options in relation to SA objective 5e: **green infrastructure**. This may have benefits in terms of promoting resilience to climate change, including addressing flood risk. Therefore, minor positive effects are expected in relation to SA objective 1b: **climate change adaptation** for both options.
- 4.117 The residential amenity of settlements within the District is also influenced by air quality. As noted above, there are a number of villages and settlements that provide potential for residents to access services and facilities using sustainable modes, avoiding private car travel and potentially mitigating poor air quality. However, both options may also direct development to small villages and settlements with poor connectivity where private car travel will be essential, which may contribute to poor air quality. Therefore, mixed effects are expected for both options in relation to SA objective 2c: **air quality**. The negative effect expected for option 1 is expected to be significant given the higher proportion of more isolated villages/settlements included through this option and the resultant increase in car journeys which might result. The positive effect recorded for option 2 is significant. This reflects the higher proportion of residents which might benefit from improved access to services and facilities which could reduce dependency on travelling by private car. Uncertainty is attached considering the more limited access from rural settlements outside the Green Belt that could be included through this option. A significant negative effect is also expected for option 2 given that development at locations close to the Bristol East Fringe (including Pucklechurch and Wick) could lead to increasing car journeys within the Staple Hill and Kingswood-Warmley AQMAs.

- 4.118 Whilst the individual villages and settlements identified for residential development in both options are only proposed to deliver small to medium-scale growth, their combined impact is likely to make a valuable contribution to meeting the District's housing need. Both options would also help meet the requirement set out in national planning policy for at least 10% of the District's housing requirement to be on sites no larger than 1 hectare¹⁵. Minor positive effects are therefore expected for both options in relation to SA objective 3a: **housing**. South Gloucestershire is within the 20% least deprived local authorities in England according to the 2019 indices of deprivation¹⁶. However, many rural locations are within the 10% and 20% most deprived area in terms of the 'Barriers to Housing and Services Domain' which considers the physical and financial accessibility of housing and local services. Therefore, development through both options may offer opportunities to address this element of deprivation in the plan area. The scale of growth is also likely to help support the viability of existing rural services. Minor positive effects are therefore identified in relation to SA objective 3f: **deprivation** for both options.
- 4.119 In terms of digital connectivity, the Ofcom broadband map¹⁷ indicates that locations that are in close proximity to the market towns of Thornbury and Yate and much of the urban fringe of Bristol (with the exception of some areas to the north) have greater access to superfast and ultrafast broadband, therefore both options would have a minor positive effect in relation to SA objective 3g: **digital connectivity**. Greater benefits may therefore be achieved through option 2, which identifies a greater number of locations around the northern and eastern fringes of Bristol. Access to high-speed broadband is more limited in the north and east of the District and limited to the larger villages such as Charfield and Wickwar. Therefore, the minor positive effect expected for option 1 is combined with a minor negative effect.
- 4.120 South Gloucestershire has good access towards Bristol City including via the existing strategic road network at the A38, M4, M5, M32 and employment opportunities can be reached in the city within reasonable journey times using public transport. Furthermore, within the Bristol fringe areas of South Gloucestershire, there is ready access to Enterprise Areas including those at Filton and Emersons Green Science Park. Option 2 proposes to direct growth in closer proximity to these major employment hubs. Therefore, a significant positive effect is expected for option 2 in relation to SA objective 4b: **access to major employment areas**. The level of access new residents would have to major employment areas from the rural communities will depend on the overall distribution of development across a large number of settlements. Some of the settlements included through option 2 (such as Aust, Dyrham and Hinton) have more limited access to these areas and therefore the positive effect recorded is uncertain. A minor positive effect is expected for option 1 as it includes settlements which can provide access to employment areas in Bristol and the larger market towns within a reasonable travel time. In both cases, the positive effects identified are also combined with negative effects as both approaches include villages/settlements that do not have good access to public transport. By focussing development to the rural villages/settlements in the north and east of the District with particularly limited access to the largest employment sites within the Bristol fringe area, the negative effect expected for option 1 is significant.
- 4.121 The delivery of growth in rural locations has the potential to adversely impact sensitive environmental receptors, but any effects identified are uncertain at this stage as they will depend on the exact location and design of development. The impacts of both options will also be limited by the fact that they will only deliver small to medium scale development. Option 1 includes a number of potential growth locations that are located within the Cotswolds AONB (Acton Turville, Badminton, Hawkesbury Upton, Horton, Marshfield, Old Sodbury and Tomarton). Although these are small villages/settlements and development would be small to medium-scale, there is still some potential for development to adversely impact the character of this designated landscape. As such, significant negative effects are expected in relation to SA objective 5d: **landscape** for option 1. Negative effects are also identified for option 2 in relation to SA objective 5d as this also includes locations within the AONB. Option 2 includes a greater amount of locations outside

¹⁵ NPPF paragraph 68(a)

¹⁶ <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

¹⁷ <https://checker.ofcom.org.uk/broadband-coverage>

of the AONB and therefore may offer potential to direct growth away from areas that will increase pressure on the AONB, and therefore the negative effect expected for option 2 is minor.

- 4.122 For both options, villages and settlements are included that lie in close proximity to SSSIs and the Severn Estuary SAC/SPA/Ramsar site. For option 1, this includes Charfield, Severn Beach and Wickwar, which are also included in option 2. Option 2 also includes Cold Ashton, Hanham, Redwick and Winterbourne which lie near these types of features. In both cases, negative effects are identified in relation to SA objective 5c: **biodiversity** due to potential adverse impacts on these designations. While option 2 includes higher number of settlements which are in close proximity to biodiversity sites, the small to medium scale of development could help to limit adverse impacts relating to disturbance, habitat loss/damage, pollution or recreational pressures. The negative effect recorded for each option is therefore minor. Negative effects are identified in relation to SA objective 5a/5b: **historic environment** for both options as the vast majority of settlements identified for potential growth contain listed buildings. Furthermore, Scheduled Monuments are located adjacent to Horton, Thornbury and Tytherington, Alveston, Bitton, Horton, Iron Acton, Oldbury-On-Severn and Olveston. Limiting development to small or medium scale through both options is likely to help limit the severity of any harm to biodiversity and heritage assets.
- 4.123 Both options include locations that are located within Mineral Safeguarding Areas, including Coalpit Heath, Winterbourne, Yate and Tytherington. Although the scale of development proposed is small, there is potential for development to result in the sterilisation of mineral resources. As such, minor negative effects are identified for both options in relation to SA objective 6a/6b: **waste and resources**. The effects identified are uncertain as they are dependent on the exact location of development and there may be opportunities to extract mineral resources prior to development.
- 4.124 The District has a high coverage of Grade 3 and above agricultural land. There are areas of Grade 1 land adjacent to Frampton Cotterell, Winterbourne and Hambrook. Development proposed through both options at these locations would result in the loss of high quality agricultural land and therefore minor negative effects are identified in relation to SA objective 5g: **land use**. The fundamental difference between the two options in terms of land use is in their treatment of the Green Belt. Option 1 avoids directing any development to locations within the Green Belt and therefore protects its purposes of preventing encroachment on the countryside and preventing sprawl of larger towns, whilst option 2 includes all villages/settlements both in and outside of the Green Belt. Therefore, minor positive effects are expected for option 1 in relation to 7a: **green belt** whilst significant negative effects are expected for option 2.
- 4.125 Areas of flood risk are present around a number of settlements through both options, which includes Flood Zones 2 and 3 around Oldbury-on-Severn, Pilning and Severn Beach. The majority of settlements through both options are at lower risk of flooding from groundwater sources. As such, minor negative effects are identified for both options in relation to SA objective 5h/5i: **food risk**. This is expected in combination with minor positive effects considering the potential for improvement to green infrastructure which might help to mitigate increased flood risk. The design of development could also provide solutions to address this issue meaning the overall effect is uncertain.

Recommendations

- 4.126 In preparing subsequent stages of the Local Plan, the Council should consider a spatial strategy that includes a combination of villages and settlements within and outside the Green Belt. Option 2 performs better than option 1 in sustainability terms, given its potential to provide residents with access to a wider range of services and facilities within the existing urban area. The provision of small scale development within the Green Belt at previously identified sites through option 2 could also provide increased potential for the extension of existing sustainable transport links. Supporting improvements of this nature may require the delivery of a number of small scale developments in a similar area. Increased reliance on rural public transport is expected be of more importance through option 1 in terms of limiting car dependency in the District. Through option 2 a number of settlements included for potential development have walking and cycling access to a wider range of key services and facilities as well as benefiting from public transport

links. The increased potential for walking and cycling through option 2 is expected to have more substantial benefits in terms of reducing car dependency. Option 2 would also have the benefit of limiting the potential for adverse impacts on the AONB and its setting.

4.127 It should be noted that some level of small to medium scale growth is still likely to be required at the smaller villages and settlements in the plan area which are beyond the Green Belt. This would help to ensure that existing service provision is supported, providing residents with some level of access nearby. Overall, the spatial strategy approach which is set out in future stages of the Local Plan may need to be considered in terms of maintaining some level of rural service provision, while limiting increases in the number of residents in locations which are less well related to the urban areas (where more car travel would be needed to access services and facilities and jobs).

Proposed strategic policies

4.128 The Local Plan 2020 Phase 1 document also begins the process of considering what policies should be included in the new Local Plan. A small number of draft strategic policies have been included (see detail in Appendix 2 of the Phase 1 document) which might be progressed further and included to address the overarching priorities for the plan area.

4.129 The summary of the expected sustainability effects for the draft strategic policies relating to climate change adaptation and mitigation, creating well-designed places and Nationally Significant Infrastructure Projects (NSIPs) and related development is presented in **Table 4.8** below. The text below the table presents the justification for the sustainability effects identified. The policies have been numbered to aid the description of the sustainability effects.

4.130 It should be noted that the appraisal of strategic policy 3: NSIPs and related development does not consider the potential effects NSIP development might have on sensitive receptors in the plan area. This approach has been taken as the policy does not set out the types of NSIPs that might be delivered, or where they might be provided in the District. Rather it sets out how the Council will consider with any NSIP proposals that comes forward and what requirements will be made for that type of development.

Table 4.8 Summary of sustainability effects for the proposed strategic policies

SA Objective	1. Climate change adaptation and mitigation	2. Creating well-designed places	3. NSIPs and related development
1a Climate change mitigation	++	++	+
1b Climate change adaptation	++	+	+
2a Public open space	0	++	0
2b Noise	+	+	+
2c Air quality	+	+	+
2d Access to healthcare services	+	+	+
3a/3b Housing	+	++	+
3c/3d/3e Access to community facilities, education and retail	+	+	+
3f Deprivation	+	+	+
3g Digital connectivity	+	+	0

SA Objective	1. Climate change adaptation and mitigation	2. Creating well-designed places	3. NSIPs and related development
4a New employment floorspace	0	0	+
4b Access to major employment areas	+	+	+
5a/5b Historic environment	0	++	+
5c Biodiversity	+	++	+
5d Landscape	+	++	+
5e Green infrastructure	+	+	0
5f/5g Land use	0	+	+
5h/5i Flood risk	+	+	+
5j Water resources	0	+	0
6a/6b Waste and resources	0	+	0
7a Green Belt	0	0	0

- 4.131 The overarching nature of the strategic policies considered means that effects are expected across many of the SA objectives. Strategic policies 1 and 2 would seek to address climate change mitigation and to ensure that the district achieves carbon neutrality by 2030. They also include an approach which seeks to ensure that development is resilient to projected climate change as well as where possible supporting the installation of renewable energy installations. Therefore, significant positive effects are expected in relation to SA objective 1a: **climate change mitigation**. Given the direct focus of strategic policy 1, a significant positive effect is also expected in relation to SA objective 1b: **climate change adaptation**. A minor positive effect is expected in relation to these two SA objectives for strategic policy 3 given that it would seek to ensure maximisation of transport benefits in relation to NSIPs which would be likely to include the promotion of public transport with positive impacts in terms of greenhouse gas emissions. Strategic policy 3 also seeks to ensure that the design of NSIPs makes a positive contribution to climate change resilience.
- 4.132 Strategic policy 2 is also expected to have a significant positive effect in relation to SA objective 2a: **open space**. The approach set out includes the incorporation of appropriate, well-located, attractive, and safe open space to be usable by all.
- 4.133 Each of the three strategic policies is expected to help ensure access to a range of services and facilities and employment opportunities. The policies will help to enable the creation of sustainable connections, promote development which reduces reliance on private vehicles and is supportive of existing transport plans. Minor positive effects are therefore expected for all three policies in relation to SA objective 2d: **access to healthcare services**, SA objective 3c/3d/3e: **access to community facilities, education and retail** and SA objective 4b: **access to major employment areas**. Improved access to these types of provisions is also likely to help address elements of deprivation in the plan area. Therefore, minor positive effects are expected in relation to SA objective 3f: **deprivation**.
- 4.134 It is likely that the approaches set out in these strategic policies would also help to mitigate the potential for increased adverse effects associated with higher private car use and congestion as development occurs. This would include noise and air pollution. Minor positive effects are therefore expected for all three policies in relation SA objective 2b: **noise** and SA objective 2c: **air quality**.

- 4.135 Strategic policies 1 and 2 are also expected to help improve the quality of housing stock in the plan area through the use of appropriate materials and sustainable design. The positive effect expected for policy 2 in relation to SA objective 3a/3b: **housing** is likely to be significant. This policy would help to ensure that housing is designed to be sustainable, aesthetically pleasing and adaptable to needs of many. Strategic policy 3 includes a criterion relating to ensuring provision of associated worker accommodation avoids adverse impacts on the rented housing market. Therefore, a minor positive effect is also expected for this policy in relation to SA objective 3a/3b.
- 4.136 Minor positive effects are expected for strategic policies 1 and 2 in relation to SA objective 3g: **digital connectivity**. These policies both require development to incorporate infrastructure to enable digital connectivity. For strategic policy 1 this is framed the context of facilitating low carbon living and working. Only strategic policy 3 is expected to have a minor positive effect in relation to SA objective 4a: **new employment floorspace**. The approach the policy sets out in relation to NSIPs is expected to help secure infrastructure required to facilitate economic growth in the district.
- 4.137 Strategic policy 2 is expected to have significant positive effects in relation to SA objectives 5a/5b: **historic environment**, 5c: **biodiversity** and 5d: **landscape**. The policy would require a high quality of design for development in the plan area which should also achieve net gains for biodiversity and landscape diversity. This approach is expected to help ensure the protection of local character and the setting of designated and undesignated heritage assets. Minor positive effects in relation to the majority of these SA objectives are expected for strategic policies 1 and 3. Strategic policy 1 is expected to result in benefits in relation to biodiversity and green infrastructure as part of the wider approach to achieving climate change adaptation. The minor positive effects expected for strategic policy 3 are expected across all three SA objectives given that it would support archaeological investigation, habitat creation and landscape mitigation in its approach to NSIPs. Strategic policy 2 also specifies that development should be integrated into strategic green infrastructure corridors/routes. Therefore, strategic policies 1 and 2 are expected to have minor positive effects in relation to SA objective 5e: **green infrastructure**.
- 4.138 This promotion of green infrastructure is likely to help mitigate flood risk in the plan area and therefore minor positive effects are also expected for these policies in relation to SA objective 5h/5i: **flood risk**. Similar to strategic policy 1, strategic policy 3 requires that NSIP development contributes positively to climate change resilience which will help to address the potential for increased flood risk over the plan period. A minor positive effect is also expected for strategic policy 3 in relation to SA objective 5h/5i.
- 4.139 Strategic policy 2 requires the design of new developments to limit the use of natural resources, including land and water and to provide for infrastructure to allow for recycling. Minor positive effects are therefore expected in relation to SA objectives 5f/5g: **land use**, 5j: **water resources** and 6a/6b: **waste and resources**. Strategic policy 3 requires that NSIP proposals should be able to demonstrate that brownfield land has been used where possible. As such a minor positive effect is also expected for strategic policy 3 in relation to SA objective 5f/5g.

Recommendations

- 4.140 As no negative effects have been identified, there are no recommendations.

Proposed non-strategic policies

- 4.141 In addition to a small number of draft strategic policies, the Local Plan 2020 Phase 1 document also includes several draft non-strategic policies (see detail in Appendix 2 of the Phase 1 document) which might be progressed further. The non-strategic policies address more detailed matters, such as locational principles and place specific requirements, as follows:
- Energy Management in New Development (two options considered as discussed below):
 - Renewable and Low Carbon Energy System;
 - Parking Requirements, including Electric Vehicles;

- Nuclear New Build;
- Oldbury A Station- Decommissioning; and
- Radioactive Waste.

4.142 Given the number of policies and considering the range of topics they cover the approach has been taken to group various policies together to present the description of likely sustainability effects. The policies have been numbered to aid the description of the sustainability effects included.

Proposed non-strategic policies 1 to 3

4.143 The summary of the expected sustainability effects for non-strategic policies 1 to 3, relating to energy management in new development (for which two options are considered as discussed below), renewable and low carbon energy and parking requirements, is presented in **Table 4.9** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.9 Summary of sustainability effects for the proposed non-strategic policies 1 to 3

SA Objective	1. Energy Management in New Development		2. Renewable and Low Carbon Energy System	3. Parking Requirements
	Option 1	Option 2		
1a Climate change mitigation	+	++?	++	+
1b Climate change adaptation	+	+	0	0
2a Public open space	0	0	0	0
2b Noise	0	0	0	+
2c Air quality	0	0	0	+
2d Access to healthcare services	0	0	0	0
3a/3b Housing	+	+/-?	0	0
3c/3d/3e Access to community facilities, education and retail	0	0	0	0
3f Deprivation	0	0	+	0
3g Digital connectivity	0	0	0	0
4a New employment floorspace	0	0	0	0
4b Access to major employment areas	0	0	0	0
5a/5b Historic environment	0	0	-?	0
5c Biodiversity	0	0	-?	0
5d Landscape	0	0	-?	0
5e Green infrastructure	0	0	0	0
5f/5g Land use	0	0	0	0
5h/5i Flood risk	0	0	0	0
5j Water resources	0	0	0	0

SA Objective	1. Energy Management in New Development		2. Renewable and Low Carbon Energy System	3. Parking Requirements
	Option 1	Option 2		
6a/6b Waste and resources	0	0	0	0
7a Green Belt	0	0	0	0

- 4.144 Negligible effects are expected in relation to the majority of SA objectives for proposed non-strategic policies 1 to 3 due to their focus being limited to building emissions, renewable and low carbon energy and parking requirements.
- 4.145 Policy 1 seeks to address greenhouse gas emissions from the built environment, which accounts for approximately 40% of total emissions in the UK. It would require that all new development, both residential and non-residential, achieves net zero carbon standards. Two potential policy options are proposed regarding the scope of net zero standards required:
- Option 1 requires net zero standards from regulated energy use (i.e. that which is covered by the Building Regulations and includes heating, ventilation, hot water supply and lighting).
 - Option 2 requires net zero from regulated as well unregulated energy use (including cooking appliances and other small power consumption).
- 4.146 For both Policy 1 options, the specific approach taken to reducing overall residential building emissions is through minimising end user energy requirements beyond Building Regulations and maximising the use of renewable energy generation sources on site. This is to achieve a 50% reduction (35% reduction required for non-residential) in carbon emissions from regulated energy use. As such, positive effects are expected for both options for policy 1 in relation to SA objective 1a: **climate change mitigation**. For option 2 the positive effect is significant given the potential to limit emissions from unregulated energy use, which in some buildings can account for 50% of total energy use. However, the effects identified are uncertain as the viability of the approach of option 2 has not been tested in the Local Plan viability study. Both options require that residual cooling is met sequentially in new buildings through passive cooling measures, mechanical ventilation or active renewable measures. This aspect of the policy is likely to help ensure that future residential and non-residential buildings do not overheat, which is likely to become increasingly important in the coming decades due to climate change induced warming. Therefore, minor positive effects are expected for both options in relation to SA objective 1b: **climate change adaptation**.
- 4.147 The high standards for new residential properties outlined in policy 1 are likely to ensure that residents in the District have access to highly energy efficient dwellings. As such, minor positive effects are expected for both options for policy 1 in relation to SA objective 3b: **housing**. Although it is stated that policy option 2 would be viable and achievable in the near future, this has not been subject to more detailed viability testing. Therefore, an uncertain minor negative effect is expected in combination for this option given that the requirements go beyond normal building standards which may affect the rate of housing delivery in the District.
- 4.148 Policy 2 is also expected to have significant positive effects in relation to SA objective 1a: climate change mitigation. This is due to its potential contribution to decarbonising South Gloucestershire's energy system through the delivery of renewable and low carbon sources and installations that support the transition to a smart energy system, which may include battery storage facilities. However, whilst the policy does require that proposals must be located in suitable areas, as dictated by forthcoming technical maps, there is still potential for such developments to result in adverse impacts to sensitive biodiversity, historic and landscape receptors. As such, uncertain minor negative effects are expected for policy 2 in relation to SA objectives 5a/5b: **historic environment**, 5c: **biodiversity** and 5d: **landscape**. Conversely, there is also potential for the delivery of renewable energy developments to have indirect positive social impacts, given that proposals which achieve local economic benefits are to be considered more favourably. Therefore, minor positive effects are therefore expected in relation to SA objective 3f: **deprivation** considering the potential to achieve local regeneration and job creation.

4.149 Whilst less direct, Policy 3 is also likely to make a contribution to mitigating the District’s transport related carbon emissions by limiting parking provision in certain circumstances. Limiting increases in unnecessary car travel in urban areas is also likely to help mitigate poor air quality. Furthermore, the policy supports the provision of charging facilities for electric vehicles. Therefore, minor positive effects are expected for policy 2 in relation to SA objective 1a: **climate change mitigation** and SA objective 2c: **air quality**. The parking restrictions in urban locations may also result in reduced noise pollution associated with car travel. As such, a minor positive effect is also expected for the policy in relation to SA objective 2b: **noise**.

Proposed non-strategic policies 4 to 6

4.150 The summary of the expected sustainability effects for proposed non-strategic policies 4 to 6, relating to Oldbury Nuclear New Build (NNB), Oldbury A station decommissioning and radioactive waste are presented in **Table 4.10** below. The text below the table presents the justification for the sustainability effects identified.

Table 4.10 Summary of sustainability effects for the proposed non-strategic policies 4 to 6

SA Objective	4. Oldbury - Nuclear New Build	5. Oldbury A station – Decommissioning	6. Radioactive Waste
1a Climate change mitigation	++/-	+/-	-
1b Climate change adaptation	+/-	+	0
2a Public open space	0	0	0
2b Noise	-	0	0
2c Air quality	-	0	0
2d Access to healthcare services	0	0	0
3a/3b Housing	0	0	0
3c/3d/3e Access to community facilities, education and retail	+	+	+
3f Deprivation	+	+	+
3g Digital connectivity	0	0	0
4a New employment floorspace	++	+	0
4b Access to major employment areas	+	0	0
5a/5b Historic environment	+/--	-	0
5c Biodiversity	+/--	+/-	-
5d Landscape	+/--	+/-	0
5e Green infrastructure	0	0	0
5f/5g Land use	+/-	+	0
5h/5i Flood risk	+/-	+	0
5j Water resources	-	+	-

SA Objective	4. Oldbury - Nuclear New Build	5. Oldbury A station – Decommissioning	6. Radioactive Waste
6a/6b Waste and resources	+	+	+
7a Green Belt	0	0	0

- 4.151 Whilst the delivery of the Oldbury NNB may result in impacts on the natural and built environment, it would make a substantial contribution to low carbon energy and meeting national targets for energy production. As such, a significant positive effect is expected for policy 4 in relation to SA objective 1a: **climate change mitigation**. The role that policy 5 may play in supporting the delivery of the NNB means that a minor positive effect is expected for this policy in relation to SA objective 1a. However, all three policies are likely to contribute to increased levels of traffic in the area, which will contribute to the District’s overall carbon emissions. It is noted that provisions are made through the policies to help reduce impacts on the local road network where possible, potentially through use of water transport for materials. Minor negative effects are therefore also expected for the three policies in relation to SA objective 1a.
- 4.152 The proposed location for Oldbury NNB is particularly sensitive due to its position adjacent to the internationally designated Severn Estuary SPA/SAC/Ramsar site and SSSI. Policy 4 requires that the proposed development must maximise opportunities to avoid, minimise, mitigate and compensate environmental impacts. However, delivery of the NNB is likely to require around 300ha of land, a significant portion of which will be greenfield. As such, there is potential for this land take to cause loss and fragmentation of habitats in the area. Furthermore, construction is likely to require the movement of numerous workers in the area, which also may also contribute to adverse impacts on the natural environment. The scale of the project is such that the measures outlined in the policy are unlikely to avoid all residual significant effects. Therefore, mixed minor positive and significant negative effects are expected for the policy in relation to SA objective 5c: **biodiversity**. Mixed significant positive and minor negative effects are also identified for policy 4 in relation to SA objectives 5a/5b: **historic environment** and 5d: **landscape**. While the development of the site is to reuse some previously developed land and facilities at the site there is potential for impacts on the surrounding landscape and seascape and archaeological assets at this location.
- 4.153 Minor negative effects are identified for policy 5 in relation to the three SA objectives above. In relation to SA objectives 5a/5b and 5d, this reflects the contribution the existing reactor buildings now make to the local landscape’s character. These buildings are also locally listed. Similar to the impacts of policy 4, negative impacts for policy 5 relation to biodiversity may occur through the level of activity required in the sensitive Severn Estuary area for decommissioning. However, a key element of policy 5 is the reinstatement of lagoon 3 (adjacent to Station A) as a valuable habitat for bird species associated with the designations on the Severn Estuary. Furthermore, the policy suggests that, where possible, the landscape character and visual amenity of the site should be enhanced. Therefore, minor positive effects are also expected for policy 5 in combination in relation to SA objective 5c: **biodiversity** and SA objective 5d: **landscape**. Policy 6 requires that environmental impacts are kept to an acceptable level in relation to the storage of radioactive waste or the disposal of low level or very low level waste at the Oldbury site. Therefore, a minor negative effect is identified for this policy in relation to SA objective 5c: **biodiversity**.
- 4.154 Further environmental impacts arising from the delivery of the NNB include the potential for air, water and noise pollution caused during both the construction and operational phase of the NNB. Any air pollution is expected to be limited to that associated with travel to and from the site. There is also potential for the development to be affected by and result in increased flood risk in the surrounding area given its proposed location in flood zone 3. Minor negative effects are therefore expected for policy 4 in relation to SA objective 2b: **noise**, SA objective 2c: **air quality**, SA objective 5h/5i: **flood risk** and SA objective 5j: **water resources**. Given the likely increased potential for flooding as a result of climate change, policy 4 may result in adverse impacts in terms of resilience to climate change and therefore a minor negative effect is also expected in relation to SA objective 1b: **climate change adaptation**. The policy includes commitments to ensuring resilience to the increased flood risk the NNB will cause by supporting opportunities for

integrated solutions between the NNB and Station A for flood mitigation. Minor positive effects are therefore identified for policies 4 and 5 in relation to SA objectives 1b and 5h/5i. The reinstatement of lagoon 3 and the commitment to restoring and enhancing Priority Habitats in the area has the potential to mitigate instances of poor water quality in the area. As such, minor positive effects are identified in relation to SA objective 5j for policy 5. Conversely, the disposal of low and very low level radioactive waste on site may contribute to decreased water quality and therefore minor negative effects are expected for policy 6 in relation to this SA objective.

- 4.155 Policy 5 could reduce some of the environmental footprint of the NNB given that, where practical, brownfield land and materials from the existing station should be used to aid delivery of the NNB. This commitment is also reflected in policy 4 and therefore minor positive effects are expected for both policies in relation to SA objective 5f: **land use** and SA objective 6a: **waste**. Minor positive effects are also expected for policy 6 in relation to SA objective 6a due to a commitment that radioactive waste is managed at the highest practicable level of the waste hierarchy. For policy 4, a minor negative effect is also expected in relation to SA objective 5g: **land use** given the loss of Grade 3 agricultural land that will result from the large land take required for the NNB.
- 4.156 The maximisation of local economic and community benefits as a result of the development of the NNB is outlined in policy 4. This identifies opportunities for employment and training and investment in local education facilities. Similarly, policy 5 seeks to protect the site for high quality employment uses in the near or longer term. Policy 6 includes a commitment to establish a Community Fund to provide support for projects that improve the amenity and social infrastructure around the Oldbury site. As such, minor positive effects are expected for all three policies in relation to SA objectives 3f: **deprivation** and 3c/3d: **access to community facilities and education**.
- 4.157 The employment opportunities which would be supported through policies 4 and 5, both during the delivery of the projects and their operational stages means that positive effects are identified in relation to SA objective 4a: **new employment floorspace**. In the case of policy 4, the positive effects identified are significant and access to the NNB site would be strengthened given the commitment in the policy to provide sustainable transport links to the site.

Recommendations

- 4.158 Through future stages of preparing the Local Plan the Council may want to consider strengthening non-strategic policy 2 to include details of what will be considered a suitable location for renewable energy proposals. It is recognised that the drafting of the supporting technical maps for this policy will provide the exact locations that are acceptable, which will be informed by the Council's emerging evidence base. However, the policy text might be strengthened to be explicit in requiring that suitable locations are those where development would not result in significant adverse impacts on the natural and built environment, including but not limited to biodiversity, landscape and local character as well as heritage assets and their settings.
- 4.159 Non-strategic policy 4 could also be strengthened by requiring the delivery of community benefits to be extended to include improvements to green infrastructure and open spaces for residents. These requirements could be included in the 'Table of themes, issues, constraints and opportunities' which supports the policy, in relation to the 'Community health and safety, community benefit and quality of life' theme. Policy 4 also could be strengthened by explicitly making reference to the need to mitigate any potential for adverse impacts on water quality given its proximity to the River Severn.

5 Monitoring

- 5.1 The SEA Regulations require that “the responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action” and that the environmental report should provide information on “a description of the measures envisaged concerning monitoring”. Monitoring proposals should be designed to provide information that can be used to highlight specific issues and significant effects, and which could help decision-making.
- 5.2 Monitoring should be focused on the significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused) and the significant effects where there is uncertainty in the SA and where monitoring would enable preventative or mitigation measures to be taken.
- 5.3 Given the early stage of the preparation of the Local Plan and the uncertainty attached to many of the potential effects identified, initial monitoring indicators have been proposed in this SA Report in relation to all of the SA objectives in the SA framework. As the Local Plan is progressed further and the likely significant effects are identified with more certainty, it may be appropriate to narrow down the monitoring framework to focus on a smaller number of the SA objectives.
- 5.4 **Table 5.1** overleaf sets out a number of suggested indicators for monitoring the potential sustainability effects of the Local Plan. Where possible, this draws from the proposed monitoring framework for the adopted South Gloucestershire Core Strategy (2013) and the adopted Policies, Sites and Places Plan (2017) that have been prepared by South Gloucestershire Council. Note that the indicators proposed are included as suggestions at this stage may change when South Gloucestershire Council prepares an updated monitoring framework for the Local Plan 2020.
- 5.5 The data used for monitoring in many cases will be provided by outside bodies. Information collected by other organisations (e.g. the Environment Agency) can also be used as a source of indicators. It is therefore recommended that the Council continues the dialogue with statutory environmental consultees and other stakeholders that has already been commenced, and works with them to agree the relevant sustainability effects to be monitored and to obtain information that is appropriate, up to date and reliable.

Table 5.1 Proposed Monitoring Framework for the South Gloucestershire Local Plan

SA objectives	Proposed monitoring indicators
1a Climate change mitigation	<ul style="list-style-type: none"> • Per capita CO₂ emissions in the District • Renewable energy generation by installed capacity and type • Percentage of major developments providing a renewable or low carbon heat generation network or CHP, or connecting to an existing facility • Number of bus passenger journeys • Index rate of cycle trips (at a representative number of cycling points) • S106 contributions to green commuting • Number of permissions for park and ride/park and share/kiss and ride • Number of bus passenger journeys
1b Climate change adaptation	<ul style="list-style-type: none"> • Proportion of planning permissions for large residential and employment developments incorporating SuDS
2a Public open space	<ul style="list-style-type: none"> • Quantity of open space per 1,000 people • Average journey time to nearest open space • Number of open spaces managed to Green Flag Award standard • Loss/gain of space used for sport and recreational uses
2b Noise	<ul style="list-style-type: none"> • Appeals won/lost where PSP8 – Residential Amenity was a material consideration
2c Air quality	<ul style="list-style-type: none"> • Number of 'poor' air quality days when pollution exceeds National Air Quality Objectives • Annual average nitrogen dioxide levels • Number of monitoring sites exceeding the annual mean nitrogen dioxide objective (40 µg/m³) in South Gloucestershire a) Total no. of monitoring sites exceeding the annual mean nitrogen dioxide objective (40 µg/m³) in South Gloucestershire b) No. of monitoring sites exceeding the annual mean nitrogen dioxide objective (40 µg/m³) within Air Quality Management Areas • No. of monitoring sites exceeding the annual mean nitrogen dioxide objective (40 µg/m³) outside AQMAs • Congestion – reduction in the average journey time per mile in the morning peak on the Avon Ring Road • S106 contributions to green commuting • Number of bus passenger journeys
2d Access to healthcare services	<ul style="list-style-type: none"> • Amount of new residential development within 30 minutes (public transport time) of a GP, hospital, primary school, secondary school, major retail centres and areas of employment • Number of Extra Care housing units completed

SA objectives	Proposed monitoring indicators
3a/3b Housing	<ul style="list-style-type: none"> • Net additional dwellings provided by area • Net additional dwellings in future years; and Managed Housing Delivery • New and converted dwellings on previously developed land • Percentage of new dwellings completed (on fully completed sites of 10+ dwellings) at: i) < 30 dwellings per ha, ii) 30 - 50 dwellings per ha, iii) > 50 dwellings per ha • Proportions of 1, 2, 3 and 4 bed dwellings and flats built by tenure • Percentage of affordable housing negotiated and delivered on qualifying sites • Gross affordable housing completions • Affordable housing completions by tenure • Number of dwellings completed on Rural Housing exception sites • Housing quality – Building for Life Assessments • Number of applications refused on design grounds • Net additional Gypsy and Traveller pitches • Vacancy rate for South Gloucestershire’s authorised Gypsy/Traveller Sites • No. of self/custom build plots granted permission • No. of planning applications for rural workers dwellings approved
3c/3d/3e Access to community facilities, education and retail	<ul style="list-style-type: none"> • Amount of new residential development within 30 minutes (public transport time) of a GP, hospital, primary school, secondary school, major retail centres and areas of employment • Index rate of cycle trips (at a representative number of cycling points) • Travel to school: Proportion of school pupils who travel to school via modes other than by car • Amount of completed retail development and proportion in town/district/local centres • Total primary retail frontage in town centres and proportion in A1 Use¹⁸ • Percentage of vacant A1 units in the town/district centres • Percentage of households within 500m of a food store selling basic food provisions • Amount of completed community facilities • Amount of completed leisure development and the percentage within town centres
3f Deprivation	<ul style="list-style-type: none"> • Worklessness: a) Unemployment International Labour Organisation (ILO) measure (official district level estimate); b) Unemployment JSA Claimant Count (sub-district level estimate) • Number of Extra Care housing units completed • Amount of completed community facilities • Amount of completed leisure developments and the percentage within town centres • Number of Very Major Developments and other qualifying developments that submit Health Impact Assessments as part of a planning application

¹⁸ Please note that since the time of writing the monitoring framework in the Core Strategy (2013), Classes A1 applicable to retail has been removed and new Class E replaces it through The Town and Country Planning (Use Classes) (Amendment) (England) Regulations 2020.

SA objectives	Proposed monitoring indicators
3g Digital connectivity	<ul style="list-style-type: none"> No. of permissions granted for new telecommunications infrastructure No. of new dwelling with access to super/ultrafast broadband
4a New employment floorspace	<ul style="list-style-type: none"> Estimate of the total number of jobs (employees in employment) by sector and geographical policy area Number of jobs arising from implemented planning permissions by geographical policy area New employment development (floorspace & jobs) compared to the number of new residential developments in the North Fringe Policy Area Number of new business start ups Small business in the district showing business growth Total amount of additional employment floorspace completed by type (use class) and geographical policy area Employment land available by type Losses of employment land to residential development within safeguarded areas Changes in employment use classes within safeguarded employment areas by geographical policy area Losses of economic development uses to residential development outside of the safeguarded areas by area. Total amount of floorspace for 'town centre uses' New employment development in the three Enterprise Areas
4b Access to major employment areas	<ul style="list-style-type: none"> Travel to work: Proportion of workers who travel to their place of work via modes other than by private car New employment development in the three Enterprise Areas
5a/5b Historic environment	<ul style="list-style-type: none"> Proportion of appeals dismissed where Conservation Area and/or listed buildings and/or AONB was a material consideration Conservation Areas/ Listed buildings/ Scheduled Monuments on the at risk register Appeals won/lost where planning policy relating to the historic environment was a material consideration
5c Biodiversity	<ul style="list-style-type: none"> Area of SSSI lost as a result of built development Improved local biodiversity – active management of local sites Change in areas of biodiversity importance Change in priority habitats and species, by type Improved local biodiversity – active management of local sites
5d Landscape	<ul style="list-style-type: none"> Number of applications granted permission within the AONB or with potential to affect its setting
5e Green infrastructure	<ul style="list-style-type: none"> Number of trees given Tree Preservation Orders (TPOs)
5f/5g Land use	<ul style="list-style-type: none"> Amount of best and most versatile agricultural land lost to built development New and converted dwellings on previously developed land
5h/5i Flood risk	<ul style="list-style-type: none"> Proportion of planning permissions for large residential and employment developments incorporating SuDS Number of planning permissions granted contrary to Environment Agency advice on flooding or water quality grounds
5j Water resources	<ul style="list-style-type: none"> Number of planning permissions granted contrary to Environment Agency advice on flooding or water quality grounds

SA objectives	Proposed monitoring indicators
6a/6b Waste and resources	<ul style="list-style-type: none"> • Production of primary land won aggregates • Size of landbank for crushed rock • Size of landbank for clay • Area of land affected by permissions for major built development in the Mineral Resource Areas • Number of planning applications granted contrary to The Coal Authority's advice • No. of licences granted for Hydrocarbon Extraction activity • No. of planning applications for Hydrocarbon Extraction activity
7a Green Belt	<ul style="list-style-type: none"> • Statutory Green Belt change • Number of permissions in the Green Belt that are contrary to planning policy

6 Conclusions

- 6.1 The SA of the South Gloucestershire Local Plan Phase 1 document has been undertaken to accord with current best practice and the guidance on SA/SEA as set out in the National Planning Practice Guidance. SA objectives developed at the Scoping stage of the SA process have been used to undertake a detailed appraisal of the Phase 1 document.
- 6.2 The Phase 1 document identifies high level and early stage potential approaches which might be developed further to establish the distribution of development over the plan period. It also sets out draft policies to address specific strategic and non-strategic issues in the plan area. While adverse effects have been identified in relation to some of the SA objectives for some of the options considered, it is likely that the further working up of policy options and the drafting of additional more detailed policies to support the overarching aims of the plan would help to mitigate these. Furthermore, where adverse effects are expected and these might reasonable be avoided, the SA has included recommendations.
- 6.3 In all, it is clear that the Phase 1 document sets out an ambitious approach to development in South Gloucestershire. The document's approach seeks to make best use of the substantial assets in the District, setting out a new approach to foster regeneration in the more urban areas while also considering an approach which will be appropriate for rural growth. It includes an approach which is to deliver the required level of development to meet the housing and economic needs of local people in this wider context. This is set out in light of the immediate challenge posed by Covid-19. The need to address climate change, as highlighted through the declaration of a local Climate Emergency, local air quality and achieving biodiversity net gain are also balanced against the need for housing and employment growth throughout the document.

Next steps

- 6.4 This SA Report will be available for consultation between 27 November 2020 and 1 March 2021. Following the consultation on the SA of the Local Plan Phase 1 document, the responses received and the findings of the SA will be considered and incorporated into the next iteration of the South Gloucestershire Local Plan.

LUC

November 2020

Appendix 1

Scoping Consultation Comments

Table A1.1: Scoping consultation responses and how they have been addressed in this SA Report

Consultee	Issues raised in relation to Sustainability Appraisal (summarised where appropriate)	Response/how comment has been addressed in this SA Report
Historic England	<p>Highlights national guidance and good practice on SA/SEA - Sustainability Appraisal and Strategic Environmental Assessment, Historic England Advice Note 8</p>	<p>The SA is being undertaken in line with best practice and is informed by the advice note noted. The advice note has duly been noted in the Chapter 3 and Appendix 3 of this report which provide details of the relevant plans, policies and programmes which have been reviewed as part of the SA process.</p>
	<p>In relation to the SA framework highlights the following points:</p> <ul style="list-style-type: none"> • SA objective 5a should be updated as follows - Listed Buildings, Grade 1, Grade 11*, Grade II, Conservation Areas, Scheduled Ancient Monuments Registered Historic Parks and Gardens, Registered Battlefields, <u>and non-designated archaeology which is demonstrably of equivalent significance to scheduled monuments</u> • SA objective 5a – the criteria suggest that there is little distinction between significant and minor negative effects, and also implies that less than substantial harm is a minor effect. National policy is clear that less than substantial harm is still harm and that great weight is applied to ensure harm is avoided. It may therefore be helpful to consider the following alternative, or variation, to ensure the subtleties of national policy are appreciated: <p><i>Designated Assets:</i></p> <p>Significant negative Development that has been assessed as likely to result in considerable harm to the significance of a designated heritage asset, historic townscape or landscape including their character and setting.</p>	<p>The recommended updates to the effect criteria have been incorporated. Please see Appendix 4 for the example effects criteria in this report. The changes made are shown with underlined text.</p>

Consultee	Issues raised in relation to Sustainability Appraisal (summarised where appropriate)	Response/how comment has been addressed in this SA Report
	<p>Minor negative effect Development that has been assessed as likely to result in minor or limited harm to the significance of a designated heritage asset, historic townscape or landscape including their character and setting.</p>	
	<p>States that it would be useful for the scoping report to set out the evidence that will be applied to assess significant environmental affects; how cumulative impact will be considered; what indicators will be applied and how mitigation will be informed and suggested.</p>	<p>Further detail of how the significance of effects will be decided upon is set out in Chapter 2: Methodology. Cumulative effects of the plan will be determined at later stages of the SA once the preferred policy approaches are known. Where recommendations have been identified in relation to the policy options considered for the Local Plan 2020 Phase 1 document these are presented in Chapter 4 of this report alongside the appraisal findings.</p>
Natural England	<p>In relation to the scope of the SA, states that this is generally appropriate. SA objective 7a. Protect and enhance valuable Green Belt is noted and it is stated that further details of how the Green Belt will be assessed to determine what is 'valuable' are needed.</p>	<p>The Council will need to undertake Green Belt assessment work to inform the consideration of updates to the Green Belt boundary in the District. This work will inform the determination of what is considered 'valuable'.</p>
	<p>States that the plans, policies or programmes listed appear up to date and relevant with respect to the natural environment. However, highlights that the draft JSP SA and HRA reports should be of relevance. In particular, the HRA for the JSP concluded that a strategic approach was needed to manage the increasing recreational pressure on protected sites, including the Severn Estuary, that new development brings.</p>	<p>In April 2020 the West of England authorities sent formal confirmation to the Planning Inspectorate of the decision to withdraw the JSP from the examination process. The SA and HRA have therefore not been included in the review of plans, policies or programmes in Appendix 3 of this report. Work is currently being undertaken for on a new West of England Spatial Development Strategy (SDS) and the SA and HRA documents prepared for the JSP will form a basis for the progression of this work. The HRA will consider in more detail the types of effects which might result in relation to the nearby European Sites. Both the SA and HRA reports produced for the SDS will be referred to as necessary within subsequent stages of the South Gloucestershire Local Plan SA.</p>
	<p>States that the following plans and projects relating to the Severn Estuary designated sites(s) may be relevant to the new Local Plan:</p>	<p>Reference to the plans highlighted are included in Appendix 3 of this SA Report.</p>

Consultee	Issues raised in relation to Sustainability Appraisal (summarised where appropriate)	Response/how comment has been addressed in this SA Report
	<ul style="list-style-type: none"> • Association of Severn Estuary Relevant Authorities (ASERA) 2018-2023 Management Scheme document • Recreational Boating in the Severn Estuary report by ASERA • The Severn Estuary High Tide Roost study 	
	<p>In relation to the baseline evidence for the SA the following is highlighted:</p> <ul style="list-style-type: none"> • Reference should be included to the England coast path route through South Gloucestershire. • It is important to also recognise that development outside, but within the setting of the AONB, can have significant impacts on its natural beauty and special qualities. 	<p>Appendix 2 of this SA Report presents the updated baseline information for the SA and the information highlighted by the consultee has been included.</p>
	<p>The following comments are made in relation to the SA framework and key sustainability issues:</p> <ul style="list-style-type: none"> • Highlights that South Gloucestershire Council is identifying a number of strategically important green infrastructure programmes for parts of the District, which the SA framework should recognise. • It is important to recognise that development outside, but within the setting of the AONB, can have significant impacts on its natural beauty and special qualities. It is suggested this is recognised in a suitably worded objective to ensure the AONB is given proper consideration in the local plan, particularly in relation to site allocations. • The wording of the objective relating to biodiversity needs to go beyond 'maintain and enhance where possible'. <i>'Protect and enhance biodiversity and the nature network, including protected sites and species, to achieve a measurable net gain and greater natural resilience'</i> is suggested. • Biodiversity is referred to in relation to the effects of climate change, but there are many other potential effects 	<p>The SA will consider details of strategically important green infrastructure programmes in the District where this information is available.</p> <p>The SA framework in Chapter 3 of this SA Report has been updated to make reference to the setting of the AONB (SA objective 5d). The framework has been further updated for SA objective 5c which now includes the need to 'protect and enhance biodiversity and the nature network, including protected sites and species, to achieve a measurable net gain and greater natural resilience'. Changes are shown with strikethrough and underlined text.</p> <p>Potential pollution of soils/water/air/light/noise pollution are already considered through SA objectives 5f, 5g, 5j, 2c and 2b of the SA framework. The potential for effects relating to biodiversity (including with regards to effects of light, noise and air pollution) is to be considered through the proximity based approach for SA objective 5c: biodiversity set out through the SA framework and effects criteria, in Chapter 3 and Appendix 4 of this SA Report, respectively. The distances included are indicative of how development could have implications for nearby biodiversity sites in terms of light, noise and air pollution. The distances set out in the criteria also reflect the</p>

Consultee	Issues raised in relation to Sustainability Appraisal (summarised where appropriate)	Response/how comment has been addressed in this SA Report
	<p>from new development that could result in further biodiversity loss, for example through habitat loss/damage/fragmentation, pollution of soils/water/air/light/noise pollution, and recreational pressures.</p> <ul style="list-style-type: none"> • It should be recognised that biodiversity exists and must be protected outside designated sites. • It is suggested that there should be an objective relating to suitable artificial lighting alongside noise, vibration and other causes of pollution and disturbance. <p>The following comments are made in relation to the approach of monitoring in the SA:</p> <ul style="list-style-type: none"> • Suggests that data gathered by the West of England Nature Partnership (WENP) and to inform the West of England Green Infrastructure Framework will be a good source of data to inform the new Local Plan. • States that there are some concerns about the current suggested criteria set out to establish the significance of effects in relation to aspects of the natural environment. For example, notes that distance is suggested as an indication of likely impacts/effects on designated sites; however, distance is only one indicator of risk and the scale and nature of the development and the sensitivities of the receptor site are also relevant. 	<p>potential for development that is within close proximity of designated conservation sites to potentially result in habitat damage/loss, fragmentation, disturbance to species, increased recreation pressure etc. Conversely, there may be opportunities to promote habitat connectivity if new developments include green infrastructure. Therefore, proximity to designated sites provides an indication of the potential for an adverse effect.</p> <p>The SA Scoping Report included criteria to be used for the appraisal of site options when these have been identified later in the SA process. This table is represented in Appendix 4 of this SA Report. This SA Report also includes suggested monitoring indicators for the monitoring of effects of the Local Plan in Chapter 5. The monitoring indicators include reference to the data gathered by the WENP. While it is recognised that there are some limitations to the use of distance based criteria to establish the potential significance of effects of development sites on biodiversity, the strategic scale of the SA and large number of site options which will need to be considered in a consistent manner means that this approach is considered appropriate. As explained in the cell above the proximity-based approach considers the potential for effects relating to pollution and recreational pressures as well as habitat damage/loss, fragmentation or disturbance. Effects will be uncertain in most cases, as appropriate mitigation may avoid adverse effects and may even result in beneficial effects. In addition, the potential impacts on biodiversity present on each site, or undesignated habitats and species adjacent to the potential development sites, cannot be determined at the strategic level of assessment undertaken through the SA. This would be determined once more specific proposals are developed and submitted as part of a planning application.</p>

Consultee	Issues raised in relation to Sustainability Appraisal (summarised where appropriate)	Response/how comment has been addressed in this SA Report
Environment Agency	Notes general support for the SA Scoping Report but suggests a number of updates to the document which are detailed below.	Comment noted and specific comments responded to in cells below.
	The review of relevant Plans and Programmes should make reference to the Water Framework Directive (WFD).	The detailed review of relevant plans, policies and programmes in Appendix 3 of this SA Report included the WFD.
	Expects guidance to be given for calculation of levels of environmental net gain and looks forward to future policy detailing how the plan will embed these principles as set out in the 25 Year Environment Plan. Invasive non-native species should be included as an existing biodiversity problem, with the promotion of good and effective biosecurity practices.	The key sustainability issues for the District in Chapter 3 of this SA Report highlight the importance of achieving biodiversity net gain as well as addressing the issue of non-native invasive species. Guidance on environment net gain will be considered as part of the preparation of detailed policies for the new Local Plan.
	<p>The promotion of and adopting of Natural Flood Management methods are encouraged for reasons of improved biodiversity and reduction in flood risk. Also highlights the importance of issues relating to biodiversity in the light of South Gloucestershire's declaration of a Biodiversity Emergency.</p> <p>States that the water quality theme should include reference to ground and surface waters, in terms of both quality and quantity. Given that phosphates are described as one of the main reasons water bodies fail WFD status in the scoping report, the comment states that wastewater infrastructure should include practical inclusion of appropriate phosphate / nitrate / nutrient stripping facilities. All new development should be encouraged to be nutrient neutral.</p>	<p>The key sustainability issues for the District in Chapter 3 of this SA Report highlight the potential to adopt Natural Flood Management to achieve benefits in terms of biodiversity and flood risk. The key sustainability issues also highlight the need to address water quality, including ground and surface water. The appraisal of the building blocks which will help to distribute development in the plan area has considered the potential sensitivities of water resources. This has been reflected in the effects recorded in relation to SA objectives 5j: water resources.</p> <p>The Council has declared a Climate Emergency as of July 2019. A separate Biodiversity Declaration has not been made. However, as part of the declaration of a Climate Emergency, the approach is to embed tackling the ecological emergency within and alongside this as it is a critical aspect of the wider environmental crisis and to make it clear that there is a need to act holistically. Nature recovery forms a central part of the Council's Year 1 Climate Emergency Action Plan.</p>
	States that the emphasis of helping to address climate change throughout the SA is supported and encouraged and that the production of a 'Carbon Neutrality and Climate Resilience Action Plan' should be considered.	Comment noted. The Council published its Climate Change Strategy 2018 – 2023 in July 2019, but the production of a 'Carbon Neutrality and Climate Resilience Action Plan' is a decision for the Council and not the SA.

Appendix 2

Baseline Information

Baseline information provides the basis for predicting and monitoring the likely sustainability effects of a plan and helps to identify key sustainability issues and means of dealing with them.

Schedule 2 of the SEA Regulations requires information to be provided on:

(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;

(c) the environmental characteristics of areas likely to be significantly affected; and

(d) any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC [the 'Birds Directive'] and 92/43/EEC [the 'Habitats Directive'].

Data referred to has been chosen primarily for regularity and consistency of collection, in order to enable trends in the baseline situation to be established, and also subsequent monitoring of potential sustainability effects.

Owing to the reporting patterns of datasets, most of the data referred to predates the COVID-19 pandemic, which has had far-reaching impacts. Examples of this are likely to include data on, for example, public transport usage, air quality, town centres/ retailing, employment etc. Census data is from 2011 and mid-year estimates, including 2018. Council data is often based on sources collected in previous years. Through future stages of preparing the Sustainability Appraisal and, more widely the Local Plan 2020, we will need reflect the latest data from national and local sources as it is released, to ensure we understand the impacts of COVID-19, and what the short, medium and longer term implications are likely to be going forward.

Geography

South Gloucestershire is situated within the West of England Combined Authority area, located immediately to the north east of Bristol. The district has close links with Bristol along with some other neighbouring communities, namely Wiltshire, Bath & North East Somerset, Gloucestershire and South Wales.

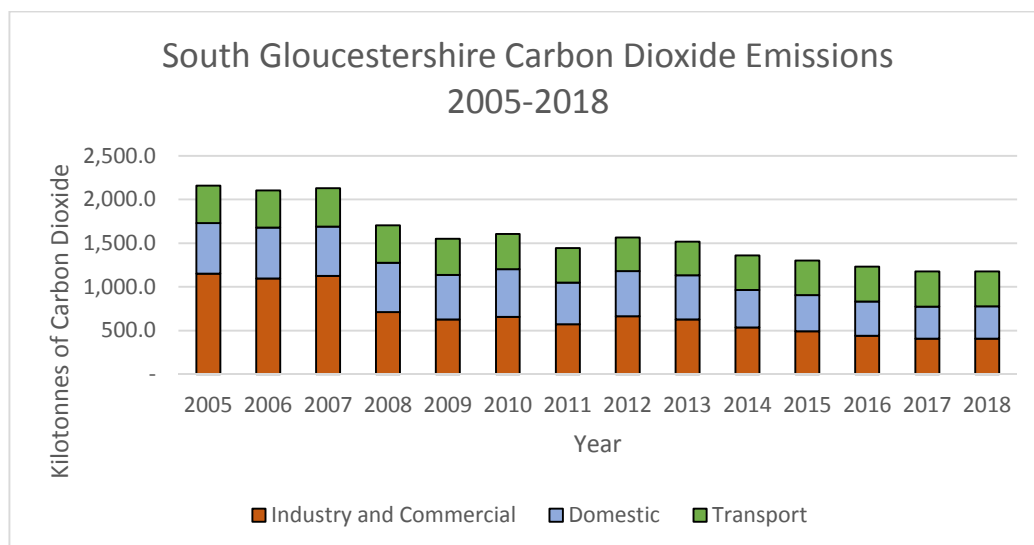
South Gloucestershire covers an area of 497 square kilometres and is comprised of 36 wards and 48 parishes. There are over 30 villages in the rural area of South Gloucestershire, many of which have a mining or manufacturing heritage. These range from small hamlets to settlements with several thousand people. The physical characteristics of the villages also vary greatly. A number of rural settlements are within the River Severn flood plain, while others are within the Cotswolds Area of Outstanding Natural Beauty and/or Green Belt.

Climate Change

The South Gloucestershire Strategic Partnership is committed to reducing CO2 emissions arising from local road transport, industrial, commercial and domestic sources. The UK national target for reducing greenhouse gas emissions was updated in 2019 and requires emissions to be net zero by 2050. Net zero means any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage. However, many local authorities and other organisations consider that more rapid action is needed to reduce emissions sooner and have declared a Climate Emergency. South Gloucestershire Council made its declaration on 17 July 2019, and pledged to provide the leadership to enable South Gloucestershire to become carbon neutral by 2030. The South Gloucestershire Climate Change Strategy has been updated to include this revised target.

Each year the Department of Business, Energy and Industrial Strategy (BEIS) provide a breakdown of CO2 emissions by local authority area (published 2 years in arrears) and this is used to measure progress against the aim of South Gloucestershire becoming carbon neutral by 2030. We report it as a percentage

reduction from the 1990 baseline emissions figure of 2,073.3 kt Co2e. In 2018 (the most recently available data), carbon dioxide emissions totalled 1177.6 kt which is 43% lower than in 1990¹⁹.

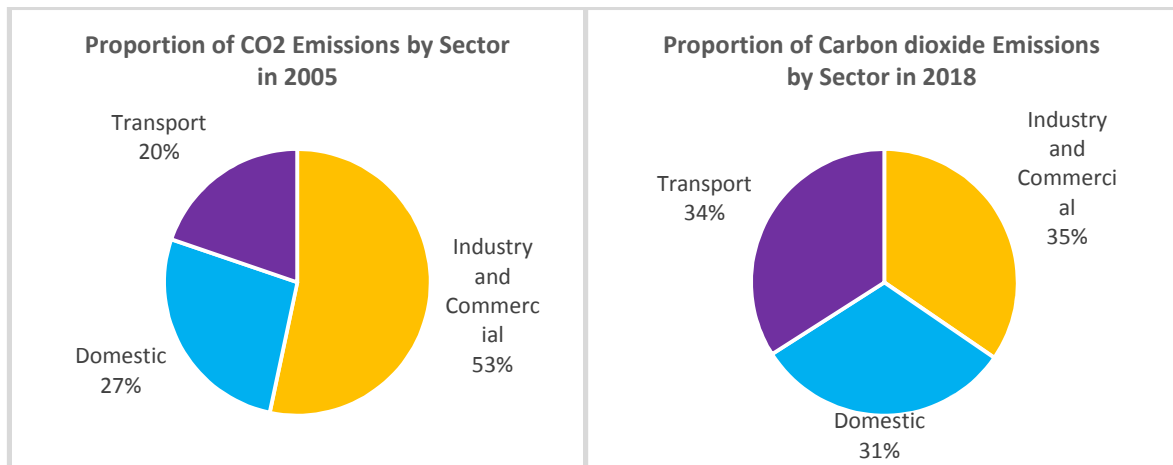


Year	Industry and Commercial	Domestic	Transport	Grand Total	Per Capita Emissions (t)
2005	1,151.1	580.9	426.5	2,158.5	8.5
2006	1,095.4	583.3	426.0	2,104.7	8.2
2007	1,125.4	564.2	439.3	2,128.9	8.3
2008	711.0	562.9	431.0	1,705.0	6.6
2009	625.2	511.7	413.4	1,550.3	6.0
2010	657.1	545.3	404.6	1,606.9	6.1
2011	573.1	476.7	393.1	1,442.9	5.5
2012	665.0	516.2	384.3	1,565.6	5.9
2013	625.2	506.4	386.4	1,518.0	5.6
2014	535.5	426.9	396.7	1,359.0	5.0
2015	491.8	412.1	397.8	1,301.6	4.8
2016	438.7	391.8	402.5	1,232.9	4.5
2017	405.2	369.3	403.3	1,177.8	4.2
2018	407.1	369.6	401.0	1,177.6	4.2

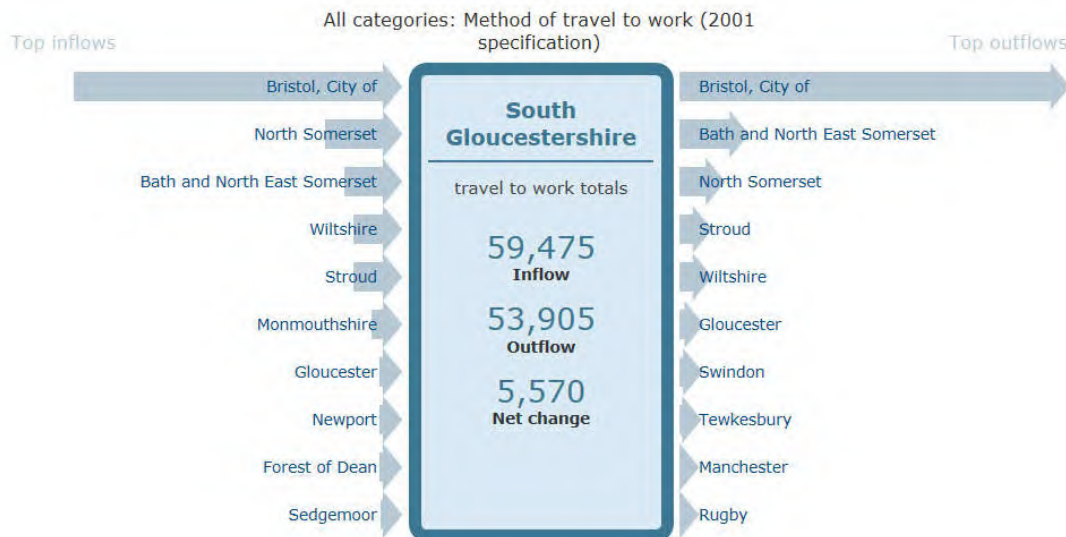
Data for 2018 shows a 0.02% reduction in local emissions when compared to the previous year. This indicates that progress has stalled. This latest reduction is less than the national situation, where there was a reduction of 2% in UK emissions between 2016 and 2018. According to the latest statistical release, the main drivers of the decrease in UK emissions in 2018 were a change in the fuel mix for electricity generation, with a decrease in the use of coal and more use of renewables. Annual emissions are also influenced by factors such as weather conditions, local and national policies as well as the wider economy (including the offshoring of emissions from manufacturing), and new development.

¹⁹ The South Gloucestershire Climate Change Strategy targets and the local area emissions data presented relate to the 'subset' of total local area emissions which is deemed to be within the scope of influence of Local Authorities. The data excludes emissions from aviation, shipping and military transport, and emissions from motorways, diesel railways, and Land Use, Land Use Change and Forestry.

In South Gloucestershire, since 2005 the proportion of emissions coming from the transport sector has risen to account for 34%, whilst the share coming from the industrial and commercial sector has dropped to 35%. The domestic sector makes up the remaining 31% of emissions. This highlights the need to make progress in reducing emissions from the transport and the domestic sectors in particular.



An important element of the transport emissions referred to above result from commuter flows in to and out of South Gloucestershire, shown in the diagram below²⁰.



Becoming carbon neutral by 2030 will therefore help reduce the severity of the impacts of global warming. This will be done through decarbonising transport by planning for growth so that people can access key services and facilities by walking, cycling and effective public transport, to minimise the need for private car use.

Population

South Gloucestershire is an attractive area which has successfully attracted and sustained investment and growth. There has been substantial population increase over the past half century with an increase of 33,500 people over the last 15 years. Like many other places South Gloucestershire has an ageing population, with an increasing number of older residents²¹ who have associated needs in terms of access to appropriate housing and services.

²⁰ Source: ONS, Census WU03UK - Location of usual residence and place of work by method of travel to work.

²¹ <https://www.southglos.gov.uk/documents/2018-SNPPs-briefing-note.pdf>

Housing

South Gloucestershire currently has a housing supply of 5.21 years. In 2018/19 1,573 houses were completed on sites across South Gloucestershire. 1,310 of these were on large sites of 10 or more homes and the remainder were completed on small sites of fewer than 10 homes. The Core Strategy aimed to deliver a minimum of 28,355 houses between 2006 and 2027 which leaves a remainder of 14,317 to be completed over the next 8 years. The plan set out the key areas decided for large scale development, most of which is planned to take place within the North and East Fringes of the Bristol Urban Area, predominantly at Emerson's Green, Cribbs/Patchway and Harry Stoke sites. Yate and Thornbury will also see appropriate large scale development.

In 2018/19, 624 affordable homes were delivered in South Gloucestershire, including 199 Extra Care homes. Of the 624 completed homes, 220 are social rent, 139 are affordable rent and 265 are shared ownership.

Current monitoring of dwelling completions indicates that in the year to April 2019, 21.7% of dwelling completions in South Gloucestershire took place on previously developed land (PDL). The Quality of Life Data Report shows that the average house price in the South-West was £270,000, 8.8 times the average national salary (£30,720) and in England the average house price was £250,000.

Deprivation and inequality

There are pockets of deprivation within the authority which are recognised areas of multiple of deprivation where evidence from a range of measures show that residents experience social deprivation and lower life expectancy.

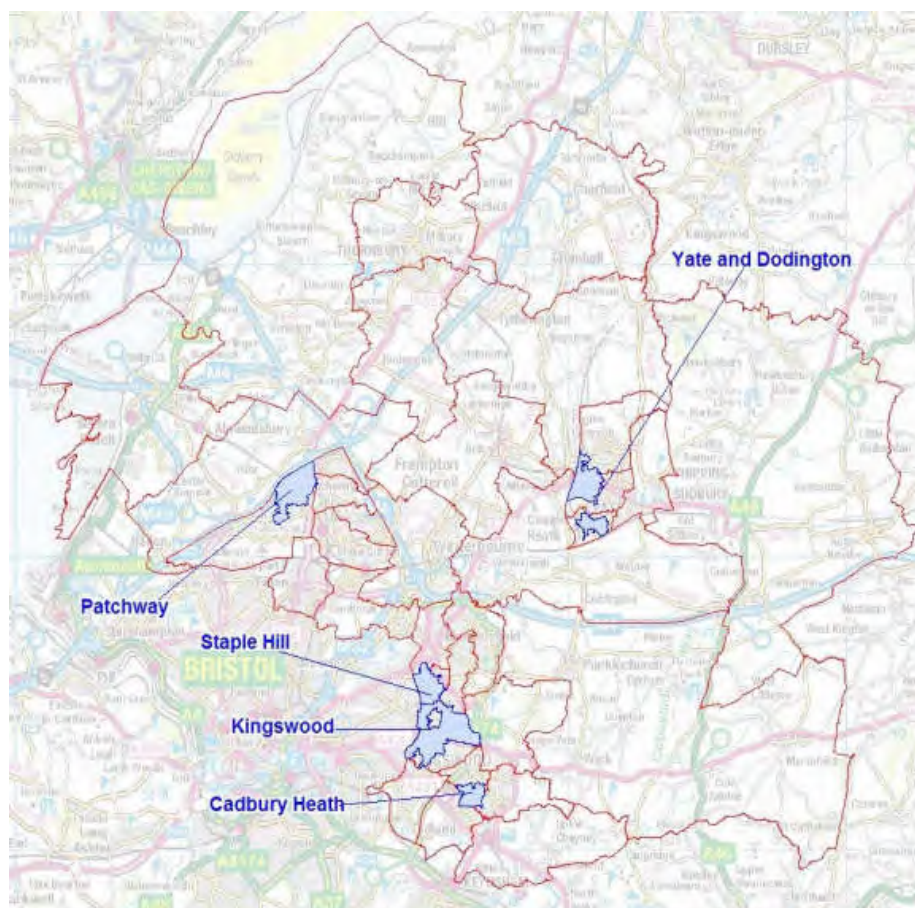
South Gloucestershire is on the whole a relatively affluent area. A good measure of this is the Index of Multiple Deprivation (IMD) which takes data from the census and other routinely held sources to provide a score for small areas. South Gloucestershire has an average IMD score for 2015 of 11.4 (national average range 5.0 – 42.0). It is ranked 274th of 326 local authorities (1st being most deprived and 326th being least) – only sixteen per cent of local authority areas in England are estimated to be more affluent than South Gloucestershire.

South Gloucestershire has no small areas, known as Local Super Output Areas (LSOAs) that rank in the 10% most deprived nationally. 30% of LSOAs in South Gloucestershire are in the 10% least deprived nationally. There are pockets of deprivation with the most deprived LSOAs generally being clustered within the urban wards of Staple Hill, Kings Chase, Patchway, Parkwall and Woodstock, though some more isolated areas exist.

The following map shows the location of the priority neighbourhoods²² in South Gloucestershire.

²² <https://www.southglos.gov.uk/documents/IOD-2019-Priority-Neighbourhood-Analysis.pdf>

Figure A2.1 Map showing location of the priority neighbourhoods in South Gloucestershire



The relative deprivation experienced by older people in South Gloucestershire, like that for children and the population as a whole is low, with 11% of the population aged 60+ being within the 40% most deprived nationally. Looking at deprivation affecting children only, a similar though slightly less extreme pattern persists with 54% of children being among the least deprived 40% in England and 21% being in the most deprived 40% nationally.

It is noteworthy in that nearly one third (32%) of the population live in areas with the poorest scores (quintiles 1 & 2) for educational attainment, skill level and level of training. The picture for children's education and skills subdomain is also of concern, with 41% of the South Gloucestershire under 16 population being among the most deprived nationally – contrasting sharply with overall IMD.

Another domain in which South Gloucestershire is relatively deprived is that of geographical barriers, which relates to the physical proximity of local services. Almost exactly half of the population (50.1%) are rated as amongst the 40% most deprived nationally in terms physical access to services – a reflection of the rural nature of much of South Gloucestershire.

Health

Residents of South Gloucestershire are generally healthier and have a better life expectancy than the national average, reflecting the relative affluence of the area. However, there is an upward trend in chronic diseases, which have a big impact on quality of life, partly due to the increases in the elderly population and to the increase in child and adult obesity. Poor air quality has a direct effect on health, and traffic related pollution is an issue in parts of South Gloucestershire. In general, residents of South Gloucestershire are healthier than the national average. Results from the 2011 census show that 84% of the population (220,816 residents) described themselves as being in "good" or "very good" health, this is above the national average of 81.2%. There are however, differences in health between different groups with those living in deprived areas experiencing poorer health.

Men in the 10% most deprived areas in South Gloucestershire live on average 6.3 years fewer than those in the 10% least deprived, and in women the gap is 5.1 years (2011/13). The conditions that contribute

most to the gap in life expectancy are cancer in men (27%) and respiratory disease in women (28%). Health outcomes are consistently worse in deprived areas, with premature mortality and lung cancer rates almost twice as high in the 20% least affluent areas compared to the 20% most affluent.

There is a strong association between deprivation and poor health outcomes. In the most deprived areas there are significantly higher levels of premature deaths, particularly deaths from heart disease. Deaths from cancer is also strongly associated with deprivation, particularly for lung cancer which reflects levels of smoking rates. If all parts of South Gloucestershire had the same rates of lung cancer mortality as the least deprived area there could be an average of 58 fewer deaths per year.

There is a strong relationship between healthy lifestyle and deprivation. Significantly lower levels of breastfeeding and higher rates of excess weight, tooth decay, injury in children in young people and childhood poverty have been observed in more deprived areas. Hospital admissions for alcohol and smoking are also highest in the most deprived areas, and emergency hospital admissions for mental and behavioural disorders show the clearest gradient related to area deprivation of all health indicators.

Community facilities

Within South Gloucestershire, there are 8 Leisure Centres, 12 libraries and 81 community centres. This is in addition to the number of sports and playing pitches, as well as clubs that are run independently from the Council.

To gauge the facilities in the district, between 2016 and 2018 the authority produced Sustainable Access Profiles (SAPs) that sought to clarify the key services and facilities within walking, cycling and public transport access from 54 rural settlements. As part of the work undertaken to inform the Local Plan 2020, the Council is updating the SAPs and is producing Data Access Profiles (DAPs) that will also look at urban areas. This work aims to provide an understanding of the level of sustainable access to key services and facilities from South Gloucestershire's urban and rural areas (including villages and settlements), to enable a detailed understanding of the facilities available for communities.

In addition to this, the Council recently undertook a detailed consultation on community centres, venues and sports clubs to ascertain the needs of these key community facilities. The Council is currently analysing results but hopes it will help to further understand the facilities available to communities across the district and promote discussions about approving new applications that could have positive impact for community needs. This work builds on the Community Meeting Space surveys (which ran from 2005 – 2008).

The information from the various surveys will assist in guiding the priorities for the Local Plan 2020.

Open Space and Green/Blue Infrastructure

The 2010 Open Space Audit recognises that 2398ha of land in South Gloucestershire accounts for open space. Much of this provision takes the form of natural and semi-natural green spaces which cover 1461 ha of the unitary authority area. While 0.14 ha of parks and gardens are currently provided per 1,000 residents across the unitary authority area, Thornbury currently does not provide access to this type of provision. Furthermore rural locations including Severnside provided a notably limited level of access to this type of provision in comparison to the other areas assessed.

Thornbury, Yate/Chipping Sodbury and East Fringe of the Bristol Urban Area provide the lowest level of access outdoor sports facilities excluding school sites and golf courses. However, only the East Fringe of the Bristol Urban Area provides access to a level of provision which is lower than the recommended quantity standard for the unitary authority when schools sites and golf courses are taken into consideration.

The West of England and South Gloucestershire Green Infrastructure Strategies will set out priorities, projects and areas for enhancing and protecting connectivity of ecological, landscape, access and recreational assets. This will include making connections between urban and rural areas, for people for nature and enhancing water quality, ecosystems and functions of our 'Blue Infrastructure' such as the River Frome. Through making decisions on the location and design of new development will need to respond to these strategies, to build in Green Infrastructure connectivity and functions and avoid harming key sites and corridors.

Presently there are worked approved for the England coast path route through South Gloucestershire. Establishment works are currently planned or in progress. The path will rub from Aust to Brean Down and connect to an existing section of path from Brean Down to Minehead.

Education

As of the 2020 spring education census, there were 39,767 students enrolled at school in South Gloucestershire (which encompasses the following faculties; Primary, Secondary, Infant, Junior, Academies and Special) and of those, there were 23,904 students aged <2 – 10 and 15,863 that were aged 11 - 19+. The Council is therefore responsible for supporting a high number of pupils across a number of different educational facilities throughout the district and it is important that every child and young person can access high-quality school provision in South Gloucestershire.

Information contained in the Council's Commissioning of School Places Strategy notes that new house building development contained in the adopted Local Plans have impacted on the pattern of demand for school places, and has shaped proposals for additional school provision. New education infrastructure arising from development of the Local Plan sites has been successfully commissioned/delivered for 4 of the total 5 sites. These include:

- A new primary school on Wallscourt Farm;
- A new primary school provision at Charlton Wood;
- Expanding Frenchay CE Primary School on a new site to provide an additional 280 places, 420 places in total.
- The remaining Local Plan site at Harry Stoke sets out provision for a new 1.5FE primary school.

Council has also made some progress with the delivery of new school provision arising from the delivery of new neighbourhoods sets out in the Core Strategy. To date this refers to the new primary school at Lyde Green providing 420 places (delivered).

Based on current information, it is estimated that development scheduled over the next 5 years will generate the need for the equivalent of 3 new primary schools and 1 new secondary school as follows:

- A new primary school at North Yate New Neighbourhood (in line with the terms of the S106);
- New primary school provision at Harry Stoke or on land East of Harry Stoke. The two sites provide for 1.5FE and 3FE primary schools respectively;
- Plans to provide a further 420 places at Lyde Green by expanding the existing Lyde Green Primary School on a satellite site at Lyde Green; and
- Plans for a new secondary school through the DfE's Wave 14 Free Schools Programme to provide 900 secondary school places.

Economic development

Through the Core Strategy, the authority allocates and protects approximately 1267Ha of employment and through a series of policies:

- CS11 Distribution of economic development land; and
- CS12 Safeguarded areas for economic development.

In addition to this, policy CS13 also provides guidance for non-safeguarded economic development sites. The Core Strategy aims to ensure that there is an adequate mix of employment uses in order to cater for the range of local employment needs, and to reduce the economy's dependence on any one sector.

The overarching aim of these allocations is to protect and where possible, enhance the employment portfolio within South Gloucestershire within both rural and urban areas.

In addition to these allocations, there are three Enterprise Areas (EA's) located at Filton, Emerson's Green and Severnside (part of Avonmouth Severnside EA). Policies within the Policies, Sites and Places Plan (adopted 2017) encourage the use of these EA's to bring forward the development of new technologies and products, energy generation and in contribution to national economic recovery (from the 2007/8 recession), ensure that there is a provision towards education, skills development and training, as well as providing high quality public spaces and provision for sustainable growth for the EA and the surrounding communities.

There were an estimated 152,000 jobs in South Gloucestershire in 2018²³. Whilst our authority benefits from a strong economy and investment generally, there is an inequality of job opportunities across South Gloucestershire as the ratio of local jobs to resident workers, which is a measure of the relationship between where people live and work, varies widely. These patterns are dynamically changing due to new working practices and this will likely continue due to the impact of COVID-19, including greater levels of working from home.

However, some areas have long standing issues with uneven numbers of people to local jobs. For example there are almost half as many 'jobs' in the East Fringe than the number of resident workers (ratio of 0.4), whilst in the North Fringe there are almost twice as many 'jobs' as the number of resident workers (ratio of 1.8).

The lack of access to job opportunities in some areas, and strong concentration of jobs in other parts of the authority and in central Bristol has resulted in significant patterns of commuting across the area, predominantly by the private car. This has resulted in significant congestion, adding to the issues highlighted above around climate change and air pollution, and also the perpetuation of inequalities in our region and our own area.

For many years the economy of South Gloucestershire has been closely associated with the aerospace industry with Airbus UK and BAE Systems based at Filton and Rolls Royce at Patchway. The aerospace industry is a key economic sector, however the economic downturn caused by the COVID pandemic has negatively impacted the aviation sector.

The older urban areas of Staple Hill, Kingswood and Hanham have experienced a loss of economic vitality and enterprise created by employment closures, rationalisation programmes, relocations and changing shopping patterns.

The development at Emerson's Green is predominantly completed, with only a few employment parcels left to be developed to the north, and within the science park. Since 2011, Emerson's Green has seen in excess of 48,000 sqm developed for employment generating purposes (including B1, B2, B8 as well as a primary school and care home).

Warehousing and distribution uses is also a sector experiencing significant growth and expansion. Over recent years the Severnside area has seen considerable activity and development by this market sector, and is recognised as a strategic location for distribution warehousing and industrial uses. However, a balance needs to be maintained between development and protection and enhancement of the ecologically important, fragile and visually prominent coastal zone.

Since 2013, there has been an approximate net gain of 85,900 sqm of traditional 'B' use floorspace across the district. However, as employment floorspace can also include uses that have an employment generating use (such as retail, care homes, leisure activities), since 2013 there has been an additional approximate 167,500 sqm of 'non B-use' employment generating floorspace. In total, this equates to 253,400 sqm of employment floorspace across South Gloucestershire.

This overall figure disguises overall churn of all floorspaces. The following table highlights across losses within the B1 and B2 use classes, where the floorspace has fallen by 9,400 sqm and 73,479 sqm respectively. These losses have occurred throughout the district, across all different employment use classes. The following table highlights the overall churn, through gains and losses.

²³ [Nomis – Labour Market Profile for South Gloucestershire](#)

Employment type	Gain (sqm)*	Loss (sqm) *	Grand Total (sqm) *
B1. Office	17,300	-26,700	-9,400
B2. Industrial & Warehousing	120,100	-73,400	46,700
Mixed B-use	30,700	-4,400	26,300
Mixed (B-use & Non B-use)	22,300		22,300
Non-B Use (including C1, C2, D1 & D2)	208,400	-40,900	167,500
Grand Total	398,800	-145,400	253,400

What this table also does not highlight are the developments that are occurring at Severnside, where the 1957/58 permission is still being used to build new industrial and warehouse units. As such, only some applications within the CS12 allocation for Severnside are requiring planning permission, and this data is therefore not included within the above table.

In the year to March 2020, 85.4% of South Gloucestershire's working age population (those aged 16-64) were in employment. The employment rate locally is considerably higher than the national and regional averages (81.9% and 79.1% respectively).

From April 2019-March 2020, the official unemployment rate in South Gloucestershire was 2.8% of the economically active population, which is considerably lower than the corresponding rates for both England (3.9%) and the West of England (3.2%).

However, Covid-19 has impacted the overall employment and job rates. As reported by Nomis, in May 2020 7,260 residents are claiming unemployment related benefits; 4.1% of the working age population. This is a 39% increase on last month's figure and a 240% increase on the number recorded at the same point last year.

At this moment it is difficult to compare the lasting impact that the pandemic will have on the employment industries across the UK, the West of England and then more locally within South Gloucestershire.

In 2018, the average annual earnings for a full time worker living in South Gloucestershire was £31,148; representing a 6.8% increase on the 2015 figure (£29,031). South Gloucestershire's average earnings are above the national average (£30,524) and West of England average (£28,503).

Town centres and High Streets

The Core Strategy safeguards 10 town centres and 2 district centres through policy CS14 (and later allocated in policy PSP31). It also includes 48 centres/parades within table 3, however no allocation is given to these local centres/parades.

Further to this, policy PSP31 identifies the acceptable uses in town centres and encourages A1 usage within the allocated Primary Retail Areas (PSP31). Shopping frontages are allocated through (PSP33), and local centres, parades and facilities and their protection is contained in PSP32.

This suite of policies seeks to ensure that town and local centres remain relevant, vital and viable for both residents and business owners. These policies are monitored through the AMR, and an annual (now bi-annual) retail survey is undertaken. This helps create a snapshot of what the retail occupancy is like across the town and district centres.

Since 2013, there has been a total of 15,215 sqm of A1 and A2 retail development completed across South Gloucestershire. However, this figure disguises losses that have occurred through the prior notification permitted development changes of commercial units to residential.

The number of vacant retail units across South Gloucestershire’s allocated town centres has fluctuated over time. The following table indicates the percentage vacancy rates by each town centre, for each year from 2013.

	Percentage vacant units by AMR year				
	2013/14	2014/15	2015/16	2016/17	2018/19
Chipping Sodbury	4.3	2.2	2.9	5.8	3.6
Downend	1.7	5.1	3.4	1.7	1.7
Emersons Green	0.0	0.0	0.0	0.0	11.5
Filton	10.5	13.2	18.4	15.8	10.5
Hanham	12.8	19.1	19.1	12.8	6.4
Kingswood	13.0	14.9	12.4	12.4	13.0
Patchway*					0.0
Staple Hill	8.0	8.0	4.0	4.0	3.3
Stoke Gifford*					0.0
Thornbury	10.9	12.2	9.0	10.3	5.8
Willow Brook Centre	0.0	3.4	3.4	3.4	0.0
Yate	11.5	12.4	9.7	8.0	13.3

Source: SGC AMR

*note Patchway and Stoke Gifford have only been surveyed since 2019.

The table indicates that there is a great disparity between vacancy rates across the authority, with Kingswood and Yate having the highest vacancy rates. Conversely, Hanham and Thornbury have successfully managed to reduce their vacancy rates by half since 2013.

With regards to the provision of leisure facilities within the town and district centres, no new facilities have been completed in the district since 2013. All new leisure developments that are completed have been outside of the town centre boundaries, and total 37,400sqm.

New use classes and what this could mean for our retail centres in the future.

The amended Use Classes Order²⁴ is designed to increase flexibility of units by changing the classification of a significant proportion of them. The changes will combine existing use classes into a single E Class. The current use classes that will be combined include:

- Shops (A1);
- Financial/professional services (A2);
- Cafes/restaurants (A3);
- Indoor sports/fitness (D2 part);
- Medical health facilities, Crèche/nurseries (D1 part); and

²⁴ [The Town and Country Planning \(Use Classes\) \(Amendment\) \(England\) Regulations 2020](#)

- and office/business uses (B1).

The following uses will be combined into a single F.2 Class:

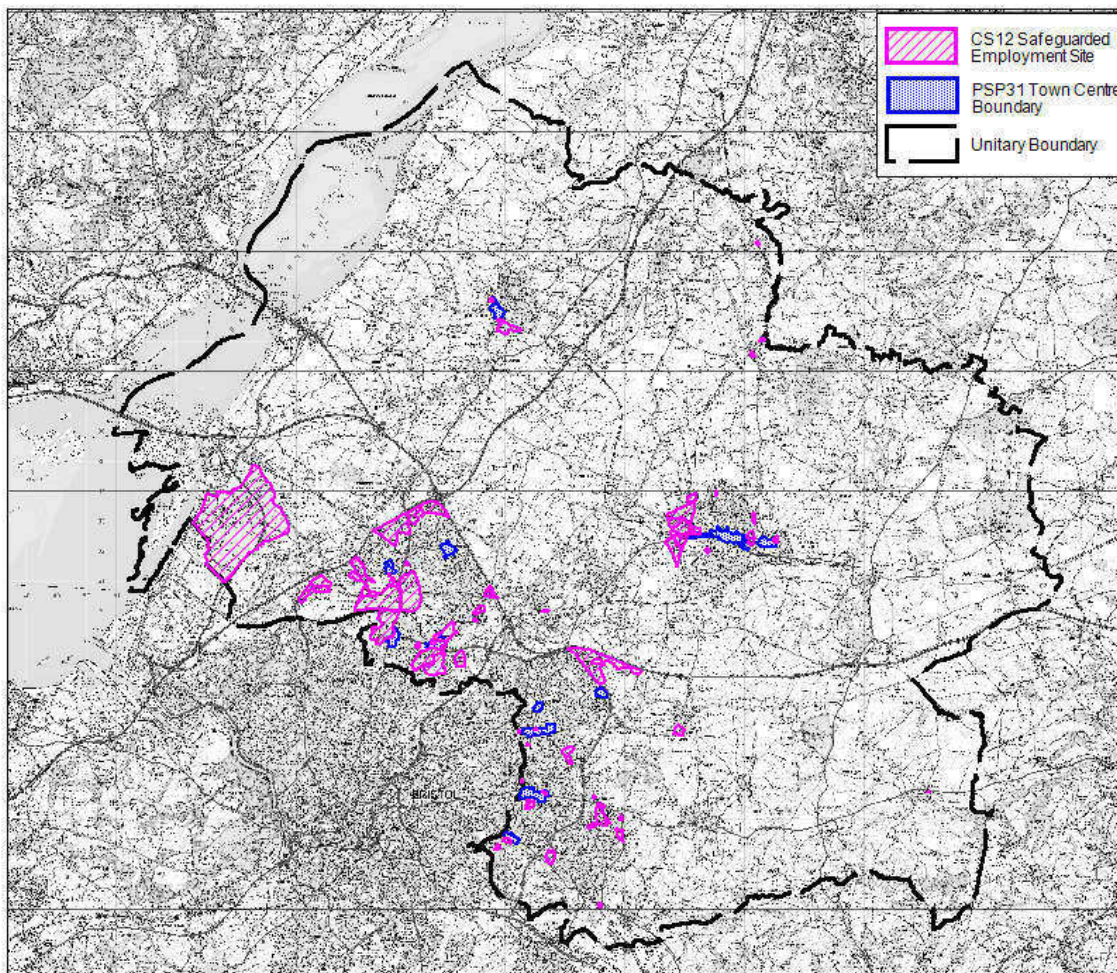
- Shop (A1) (Not more than 280sqm mostly selling essential goods, including food and at least 1km from another similar shop);
- Hall or meeting place for the principal use of local community (D2); and
- Indoor or outdoor swimming baths, skating rinks and outdoor sports or recreations not involving motorised vehicles or firearms (D2).

The following uses will be combined into the Sui Generis Class:

- Pub or drinking establishment (A4);
- Take away (A5); and
- Cinema, concert halls, bingo halls and dance halls (D2).

These changes came into being on the 1st September 2020, for all new applications. The hopes of these changes is that town centres will begin to thrive, with the removal of planning controls.

Figure A2.2 Map showing CS12 Safeguarded Employment Sites and PSP31 Town Centre Boundaries



Transport

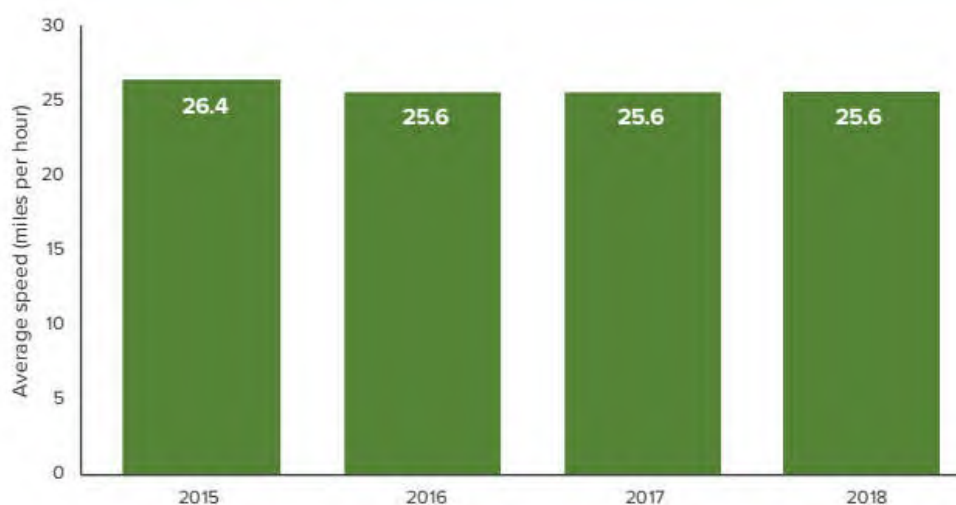
Transportation in the South Gloucestershire is a major contributor to greenhouse gas emissions and air pollution. The ability of individual communities to sustainably connect to existing key services and facilities by walking, cycling and the availability of suitable public transport connections varies significantly across urban and rural areas.

South Gloucestershire’s location next to a major city, its significant employment opportunities and position on the strategic road and rail network has historically encouraged high levels of investment and growth in housing and employment. This has led to high rates of traffic growth, increasing congestion, air pollution, unsustainable commuting patterns and longer journey times. A high quality of digital connectivity and broadband access can assist in reducing peoples need to travel. However, there is a need to increase people’s ability to walk and cycle to access key services and facilities, including community centres, some types of shopping, health, education, and certain types of employment.

The economic prosperity of South Gloucestershire and high levels of employment, housing and population growth make tackling congestion a major challenge for the Council. Congestion is a feature of many of the major roads, particularly in the urban areas of South Gloucestershire.

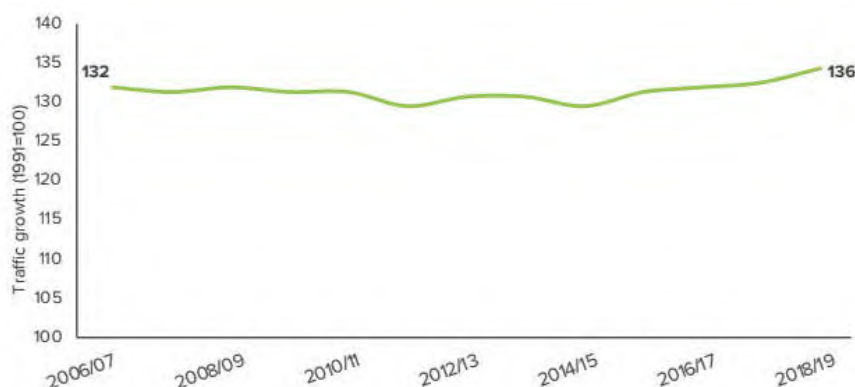
The Department for Transport’s preferred measure of congestion is to use average speed on South Gloucestershire’s locally managed A roads. This data source has now been available for four years, the past three of which have seen the figure remain the same after a 3% reduction in average speed between 2015 and 2016.

Average speed when travelling on South Gloucestershire A roads (Department for Transport)



Furthermore, general traffic levels within South Gloucestershire appear to have increased in the past year, and are currently at their highest level since 2006.

South Gloucestershire traffic growth (1991 = 100) (Department for Transport)



Much of South Gloucestershire is rural in nature and a higher than average car ownership and usage. The 2011 Census identified that 87% of households had at least 1 car or van compared with 74% in England and Wales. The 2011 Census also revealed that there were 158,289 cars or vans in the area.

As is demonstrated on the commuter flows diagram (see Climate Change section), Bristol remains an important hub for commuting to work, and that commuting patterns are complex and trips across local authority areas are common. Data on travel to work patterns from the ONS shows that nearly 60,000 people travel into South Gloucestershire for work, with nearly 54,000 traveling out of South Gloucestershire for the same purpose.

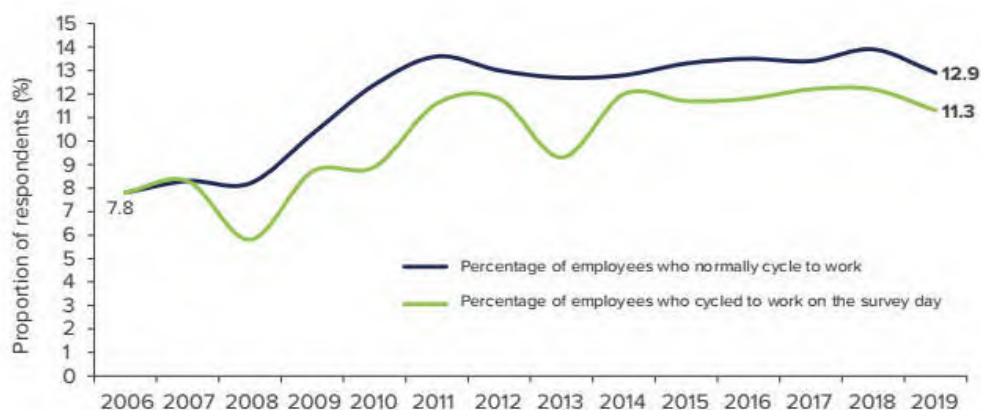
The importance of delivering travel improvements, and in particular improved transport infrastructure to support the growth are also key themes within the Strategic Economic Plan.

Over the past few years there has been significant new transport infrastructure delivered over the past few years, including the Greater Bristol Bus Network (GBBN), MetroBus, the expansion of Smart Motorways on the M4, M5 and M49 junction, as well as a host of improvements to the strategic cycle network.

There are also major road improvements planned in South Gloucestershire, such as the works to such as the works to the Great Stoke Roundabout and Wraxall Roundabouts. However it is acknowledged that the Local Plan will need to continue to encourage the shift to more sustainable and active modes of transport, through the approach it takes to growth and development.

The proportion of people cycling to work is measured in a snapshot survey undertaken by the council in March each year. The survey asks employees from a number of major employers within South Gloucestershire how they normally travel to work, and also how they travelled on the actual day of the survey. The graph below shows that the overall trend is fairly flat. Any deviations from this are potentially influenced by a range of factors including the number of employers taking part in the survey, and the weather on the day of the survey.

Proportion of employees who cycle to work (Travel to work survey 2019)

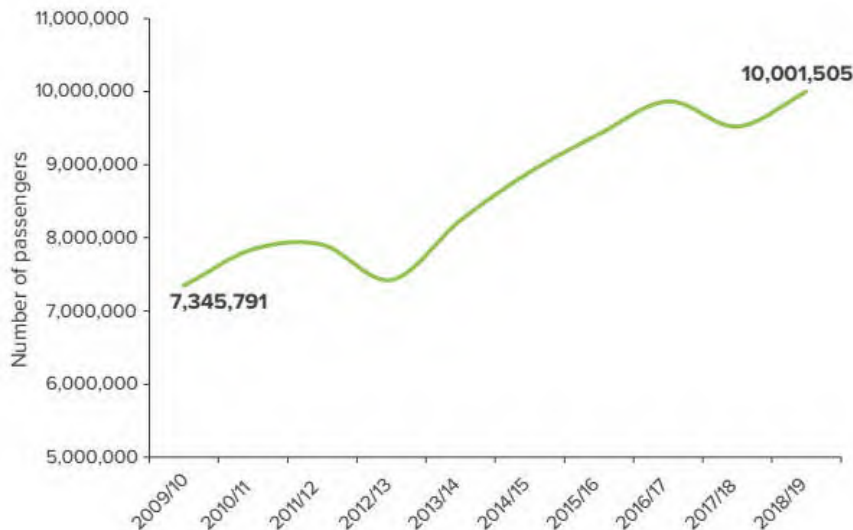


In 2018/19, just over 10 million journeys were made by bus. This is an approximate 5% increase on the previous year and continues the overall trend in the West of England for increasing bus use in recent years.

Over the last year there has been continued work aimed at encouraging bus use and improving the customer experience. These include continued investment by local bus companies in improved vehicles and services. There has also been ongoing investment by South Gloucestershire Council in supporting the bus service network and improving infrastructure.

The bus patronage figures include metrobus boardings in South Gloucestershire. Since the staggered introduction of the metrobus routes in 2018/19, they have seen 1.7 million passenger journeys between them as of the end of March 2019. The number of passengers on the m3 has resulted in the operator increasing the frequency of the service in the peaks and introducing a new, faster journey in the form of the m3x.

Number of bus passengers boarding buses in South Gloucestershire (South Gloucestershire Council)



Access to services and facilities

Due to the varied nature of South Gloucestershire (in that it is part urban and part rural), access to services and facilities varies greatly.

In 2018, the Council produced Sustainable Access Profiles (SAPs)²⁵ of its rural areas to help provide an understanding of the unique differences the different rural communities face in access services and facilities. These profiles looked at how key services could be accessed, sustainably (through walking, cycling and/or using public transport). The Sustainable Access methodology (2018) set out the rationale for choosing certain key services and facilities, evidence used to determine the walking and cycling distances to reflect "reasonable access" and also the criteria for assessing whether or not rural villages and settlements have suitably frequent and timely public transport connections to locations containing key services and facilities. The SAPs showed that there are a number of key villages and settlements with varying degrees of sustainable access, from minimal walking and cycling access to key services and facilities, but at least one suitable timely and frequent public transport connection, to other settlements such as Yate our largest market town, where nearly all key services and facilities accessible by walking and cycling and a high number of public transport connections.

Using the baseline information obtained from the SAPs, it is possible to conclude that generally many smaller rural villages in the authority are likely to have lower levels of key services and facilities in close proximity, which means less people can safely walk and cycle too them. They can have lower quality digital connections, along with fewer and less frequent public transport connections. Based on the current distribution of key services, facilities and transport infrastructure there are however, significant variations between communities within rural South Gloucestershire. Our rural area contains some villages and rural locations with key services and facilities in close proximity to enable walking and cycling, particularly in market towns, surrounding market towns or immediate adjacent the north and east urban areas. Some of these locations also have regular public transport connections to destinations with further key services and facilities, often these locations are close to the North and East Fringe of the district or on the main public transport corridors of the Badminton Road and A36.

As part of the Local Plan 2020, the Council is in the process of supplementing the 2018 information, with updates and profiles for urban areas. The intention is for an updated set of profiles covering all rural and urban communities, called Data Access Profiles (DAPs) to be released. These will assist understanding the current level of sustainable access to key services and facilities as a whole and will assist the understanding of what might need to be enhanced to achieve 'walkable neighbourhoods' within individual communities. The information will assist aid understanding and investigation of where growth of homes or jobs might be placed to be in close proximity to key services and facilities to encourage walking, cycling or public transport use as opposed to private car journeys.

²⁵ [Sustainable Access Profiles Methodology](#)

Historic environment and cultural assets

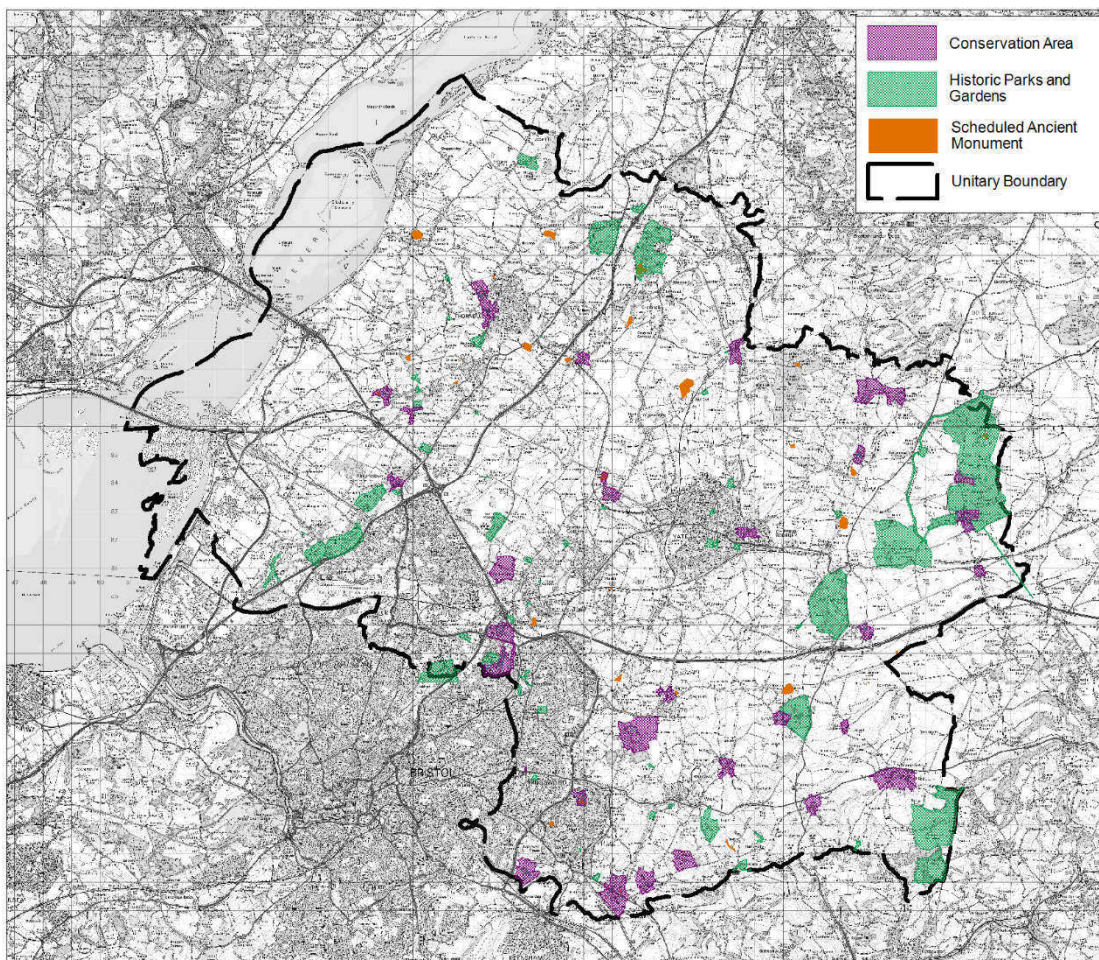
South Gloucestershire possesses a diverse heritage, ranging from the lowland waterlogged landscapes of the Severn Levels, through the coalfields of north Bristol to the prominent and often exposed archaeology of the Cotswolds, interspersed by areas of rural, semirural/ urban and urban settlement. Its archaeology ranges from paleo-environmental deposits to prehistoric hillforts, Roman towns, Saxon burial grounds, medieval planned settlement and nationally significant historic mining.

Historical assets include:

- 38 Scheduled monuments;
- 8 Registered historic parks and gardens;
- 1 Registered battlefields (part);
- 2,085 Listed Buildings entries of which 2% are Grade I, 6% are Grade II* and 92% are Grade II; and
- 30 Conservation Areas.

South Gloucestershire also hosts many cultural attractions including the Aerospace Bristol Museum, Bristol Zoo's Wild Place and The Wave surfing lake as well as more traditional assets such as the National Trust's Dyrham Park. Planning permission has recently been approved for a new circa 42,000sqm arena and events space at Filton to serve the wider sub-region.

Figure A2.3 Map showing Conservation Areas, Historic Parks and Gardens and Scheduled Ancient Monuments



Landscape

South Gloucestershire has many contrasting landscapes, ranging from the Cotswolds Area of Outstanding Natural Beauty (AONB) (which covers 11,828 hectares or 22% of the land area in South Gloucestershire) and its wider setting, to the urban area within the edge of Bristol. The sensitivities of the AONB are recognised not only in terms of the potential for impacts as a result of development within its boundaries but also within its wider setting which can have significant impacts on its natural beauty and special qualities. The landscape of the District is predominantly rural and agricultural comprising of landscape ridges, hillsides and views that frame the urban area and provide the setting for rural villages and settlements.

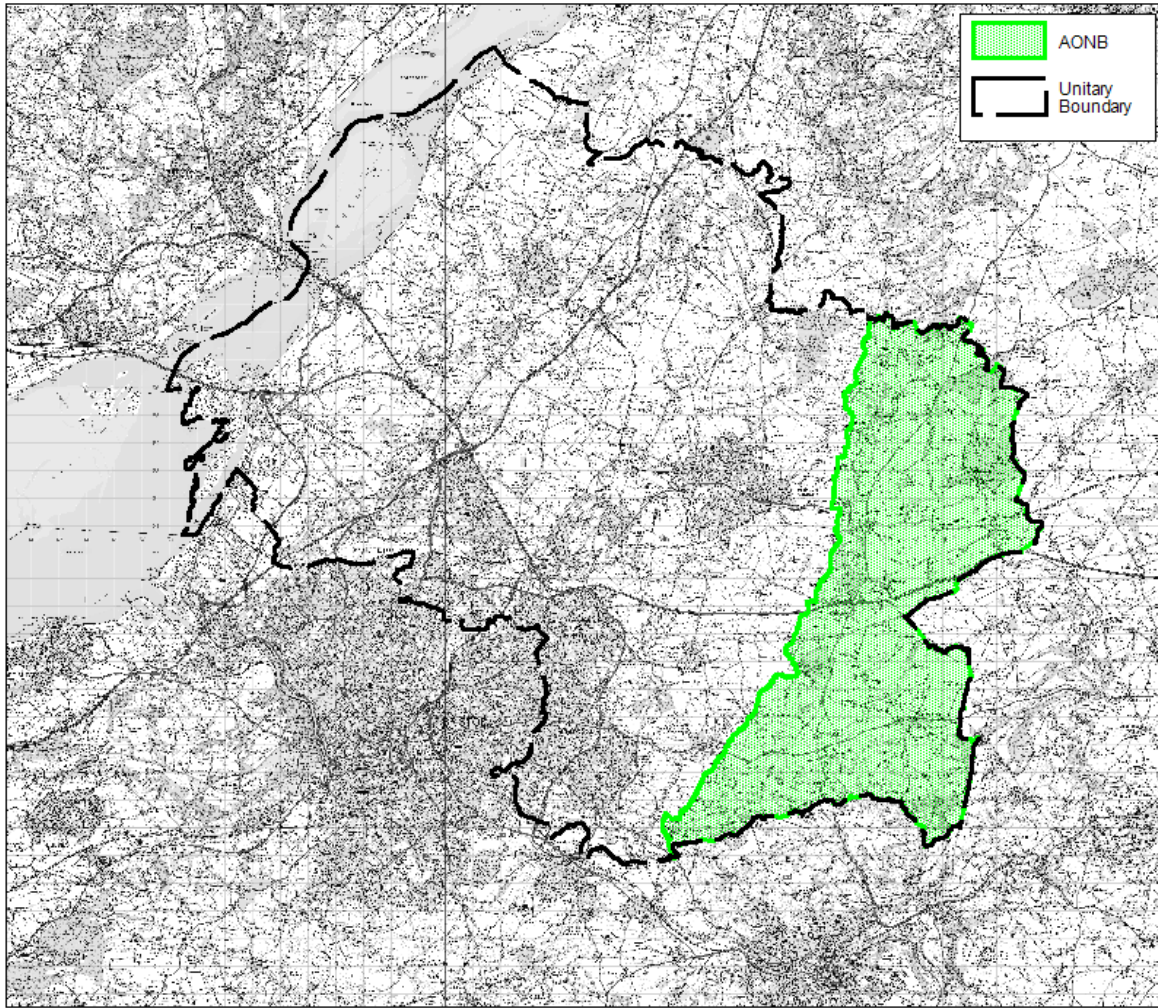
South Gloucestershire's landscape is greatly influenced by large-scale scarp, ridges, vales, levels and estuary landforms, overlain by a variety of land cover, in places comprising unique natural or historic features. Trees and woodlands currently cover approximately 11% of South Gloucestershire.

South Gloucestershire's landscapes are covered by three of the National Character Area descriptions: the Severn and Avon Vales (No. 106), the Cotswolds (No. 107) and the Bristol, Avon Valleys and Ridges (No. 118), while there is a visual interrelationship across the estuary with Forest of Dean and Lower Wye (No. 105).

The [Landscape Character Assessment \(LCA\) SPD \(2014\)](#) provides a statement of the character of South Gloucestershire's landscapes, their distinctive attributes and features, together with an assessment of the changes that are taking place in the landscape and strategic guidance to help steer future evolution. It describes in detail the 21 landscape character areas in South Gloucestershire which, following the identification of relevant National Character Areas, are the result of a more detailed assessment of South Gloucestershire's landscapes and identify unique areas which have their own particular identity.

The pressure for growth and change across South Gloucestershire will have an impact on the existing landscapes and their character.

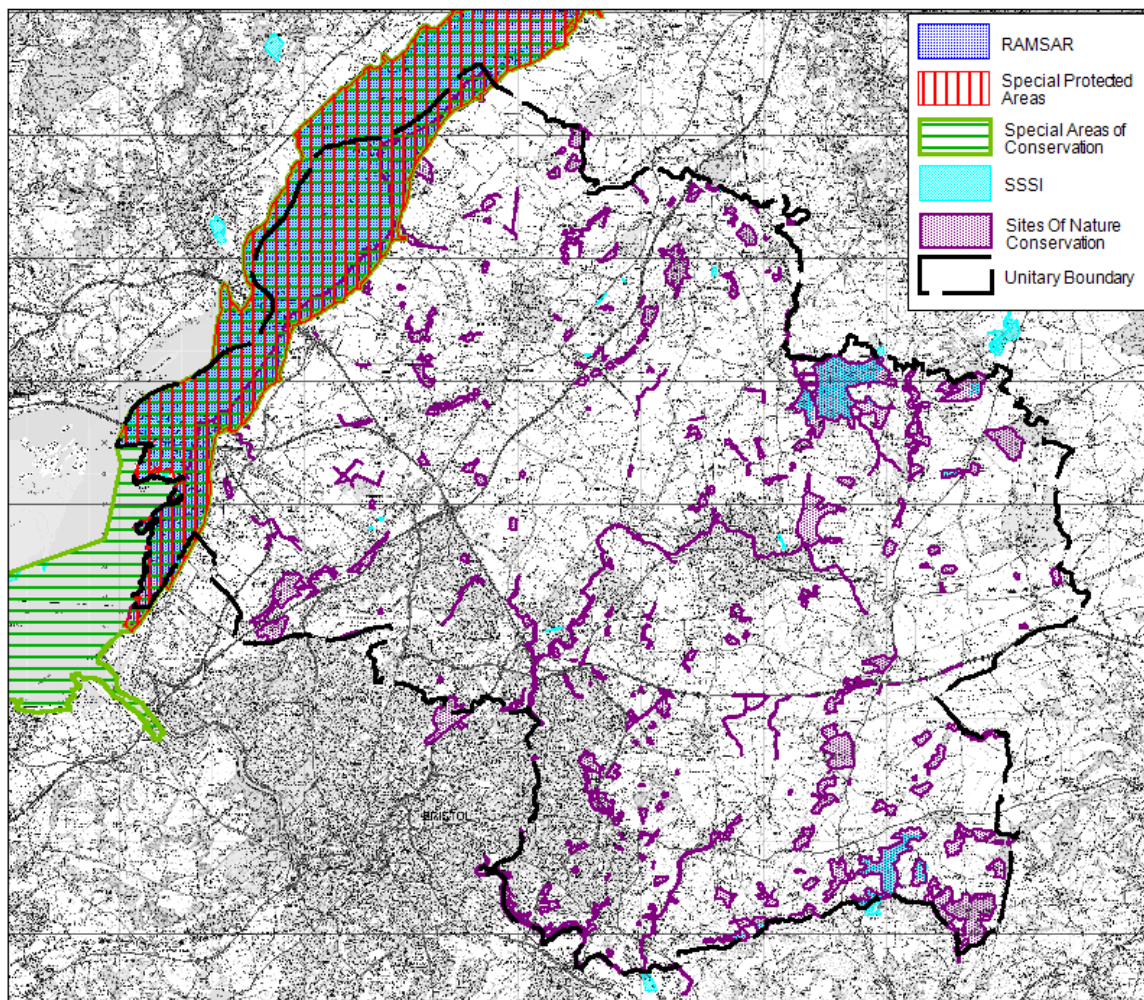
Figure A2.4 Map showing the extent of the Cotswolds AONB



Biodiversity, flora and fauna

South Gloucestershire has 11 Local Nature Reserves, covering a total of over 109 hectares, and 22 SSSIs covering 553 hectares. The South Gloucestershire shoreline between Chittening Warth (Avonmouth) and the unitary authority boundary with Gloucestershire forms part of the Severn Estuary and is subject to a series of additional over-lapping nature conservation designations. The Estuary is notified as a Site of Special Scientific Interest (SSSI), covering a total of 4,104 hectares. It is also designated as a Special Protection Area (SPA), Special Area of Conservation (SAC) and RAMSAR site, which collectively form one Natura 2000 site.

Figure A2.5 Map showing the International, National and local Ecology constraints



South Gloucestershire also contains a rich array of wildlife and geology outside these legally protected sites. There are some 271 Sites of Nature Conservation Importance (SNCIs) and 64 Regionally Important Geological/Geomorphological Sites (RIGS), both non-statutory designations but these sites contain the best examples of wildlife habitats, rare species or geological features in South Gloucestershire outside the network of SSSI's and European Sites and of critical importance for local biodiversity. South Gloucestershire's wildlife includes a diverse variety of species of flora and fauna, from the locally notable (Wild Service Tree, Slowworm and Barn Owl), to national rarities (Bullfinch and Adder's Tongue Spearwort) to internationally protected species (such as Great Crested Newt, Dormice, Otter and the Lesser Horseshoe Bat).

Further to this, the Council is working in conjunction with the West of England Nature Partnership to help develop a Nature Recovery Network in South Gloucestershire, which will identify ecological networks for woodland, grassland and wetland and aims to restore and reconnect wildlife habitat and contribute to the conservation of biodiversity. The Nature Recovery Network will also contain areas of designated habitat, identify the best connections between them and highlight any existing gaps in ecological connectivity.

Soil

The Agricultural Land Classification (ALC) 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 interactions between them form the basis for classifying land into one of five grades, where 1 describes land as 'Excellent' (land of high agricultural quality and potential) and 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'.

Most of the land in South Gloucestershire is classed as Grade 3 (Good to Moderate) Agricultural Land, with Grade 2 (Very Good) distributed in pockets throughout the area. For comparison, out of the areas classified as Grades 1 to 5, 84% of the land falls within Grade 3, 6% at Grade 2 and 8% at Grade 4²⁶

The Council maintains a list of the previously developed land in the District which is considered appropriate for residential development as per The Town and Country Planning (Brownfield Land Register) Regulations 2017. This register contains brownfield land that is at least 0.25 hectares, or capable of supporting at least 5 dwellings and considered appropriate for residential development.

Mineral

South Gloucestershire has a long history of mineral working. Today's mineral activity is dominated by working of the Carboniferous Limestone from a small number of quarries across South Gloucestershire.

The ability to use the valuable aggregate mineral resources that exists in our area in a sustainable way play an important part in the economic, environmental and infrastructure goals for South Gloucestershire. The resources in our area are an important contributor to the sub region and nation's mineral requirements and prosperity. They provide the critical raw material for built development and other construction, manufacturing and the maintenance of infrastructure, through their use as concrete, mortar, finishes, roadstone, constructional fill and railway ballast.

About 3.59 million tonnes of crushed rock aggregate was produced at quarries in the West of England in 2017, a small decrease of 0.13mt (3.5%) on the 3.72mt that was produced in 2016. Similarly, the ten year average crushed rock production (sales) figure for 2008-2017 of 3.37mt represents a small decrease on the levels seen in the previous two years (3.4mt and 3.41mt). The three year (2015-2017) average for crushed rock production (sales) is 3.64mt, so is higher than the 10 year average.

Total permitted reserves in WoE at the end of 2017 were 127.96mt giving a landbank of just under 38 years based on the average annual production over the 10 year period 2008 – 2017 (3.37mt). However this does not take account of factors which could affect the deliverability of the permitted reserves, for example the fact that a significant proportion of the permitted reserves at that time were at mothballed quarries.

Minerals are a diminishing, finite, and often constrained resource and can only be worked where they are found. It is therefore important that through the Local Plan we plan to maintain a steady and adequate supply of minerals, but also ensure minerals are extracted in a sustainable way and restoration of former mineral extraction areas within South Gloucestershire is progressed over the coming years.

Air quality

Clean air is a basic requirement for health and wellbeing and can be affected by a variety of sources, including transport and industry activity. In South Gloucestershire, traffic related pollution is an issue in our urban areas, which can exacerbate conditions of people with pre-existing respiratory diseases such as asthma. Due to the potential effects caused from poor air quality, South Gloucestershire Council has a duty to review and assess air quality within the district under Part IV of the Environment Act 1995. Pollutant levels are assessed against health-based national air quality objectives and where the objectives are not met, Air Quality Management Areas (AQMAs) must be declared and an Action Plan put in place to improve the air quality in these areas.

Currently, there are two Air Quality Management Areas in effect, one in Staple Hill and the other in the Kingswood-Warmley area. Following the declaration of the AQMAs and further assessment, the Council extended the initiatives in May 2012 and produced an [Action Plan](#) with aims on how to improve air quality in the Kingswood and Staple Hill AQMAs. As a result of this, Kingswood has undergone previous public consultations for the "love our high street" project, which aspires to create cleaner, safer and active streets with high quality public spaces and cleaner air.

The Air Quality Annual Status Report ²⁷for the authority (published in September 2019) notes that there have been declining trends in nitrogen dioxide levels and only one exceedance of the annual mean objective within the AQMAs shows that air quality is improving. However, given that there are continuing

²⁶ Please note that it has not been possible to obtain the layer distinction between Grade 3a and 3b.

²⁷ <https://www.southglos.gov.uk/documents/2019-SGC-Air-Quality-Annual-Status-Report.pdf>

pressures on the transport systems coupled with the need for housing growth, significant challenges are faced.

Noise

Excessive or persistent noise can have a detrimental effect on health and wellbeing. The main impacts are on raised blood pressure, cardiovascular diseases, sleep disturbances, annoyance hearing impairment and tinnitus that affects mental health and cognitive impairment.

Locally 7.8% of the population are affected by night time noise, the same as the England rate and higher than the regional rate of 5.1%. Within South Gloucestershire the total number of noise complaints has risen steadily over the last 10 years to just under 1000 for 2014/15

The population affected by day time noise from road, rail or air, at or greater than 65 dB(A) in 2011 was 4.1%, lower than the England average of 5.2% but higher than the South West average of 3.5%.

Noise mapping highlights that those living close to the main vehicular arterial routes (M4, M5, M32, A4174, A38) are exposed to the greatest noise volumes.

Within South Gloucestershire the total number of noise complaints has been steadily rising over the past 10 years, from 857 in 2004/2005 to just under 1000 for 2014/15. However the rate of complaints about noise is lower than the national average.

Water

In total, there are 22 river waterbodies that flow through South Gloucestershire. Under the Water Framework Directive, the overall status of each water body is assessed as a combination of ecological status and chemical status. For a water body to be in overall 'good' status, both its ecological and its chemical status must be at least 'good'.

In 2016, 3 of the 22 water bodies in South Gloucestershire were described as having an overall 'good' status, with 14 'moderate' and 5 'poor'. In this instance, it was found that Phosphate, Fish, Invertebrates and Dissolved Oxygen were the main causes of failure.

In 2019, the Environment Agency changed these classifications to incorporate the way that persistent chemicals are assessed. As a result, all waterbodies in the UK now fail the Water Framework Directive standards, primarily a result of flame retardants and Mercury.

The 2019 assessment therefore showed a different overall picture, with no 'good' classifications, 17 'moderate' and 5 'poor'.

The [Department for Environment, Food and Rural Affairs](#) notes that there is one water quality priority area in South Gloucestershire, located east of the A38 and north of the M4 up to Yate and Thornbury. This area is also a surface water nitrate 'high priority' area, as well as 'high priority' for sediment and phosphates. There is only one Nitrate Vulnerable Zone in the authority, and no drinking water safeguard zones according to the Environment Agency. ²⁸

The 2016 [Bristol Avon Catchment Plan](#) (of which South Gloucestershire lies within) notes that only 24% of the catchment is classified as having 'good ecological status. Although this is typical of other similar catchments, it demonstrates the scale of the challenge to meet the Water Framework Directive targets. In addition:

- 76% fail to meet the targets due to factors including physical modification, phosphate levels, sediment load and low fish populations;
- Some landowners are losing valuable topsoil, nutrients and pesticides due to erosion, run-off or leaching; sometimes linked to poor soil structure and compaction.;
- Heavy rainfall running off rural and urban areas causes surface water and river flooding in specific locations. Tidal flooding continues to be a threat in the lower reaches of the catchment.

Whilst these issues span a much larger geography than the authority itself, any development within South Gloucestershire will have a direct impact on the water catchment area.

²⁸ <https://environment.data.gov.uk/farmers/>

There is also the 'River Frome Reconnected' partnership project which South Gloucestershire is involved in. The objective of this project is to deliver improvements and benefits for the water environment through a more strategic and joined-up approach at sub-catchment level. It is looking to improve water quality and increase fish populations which have been steadily declining. It will also be aiming to improve flood risk from all sources (fluvial/tidal, surface water and groundwater) along the river, and also takes into account planned asset works for the next five years to enable an integrated planning and delivery solution.

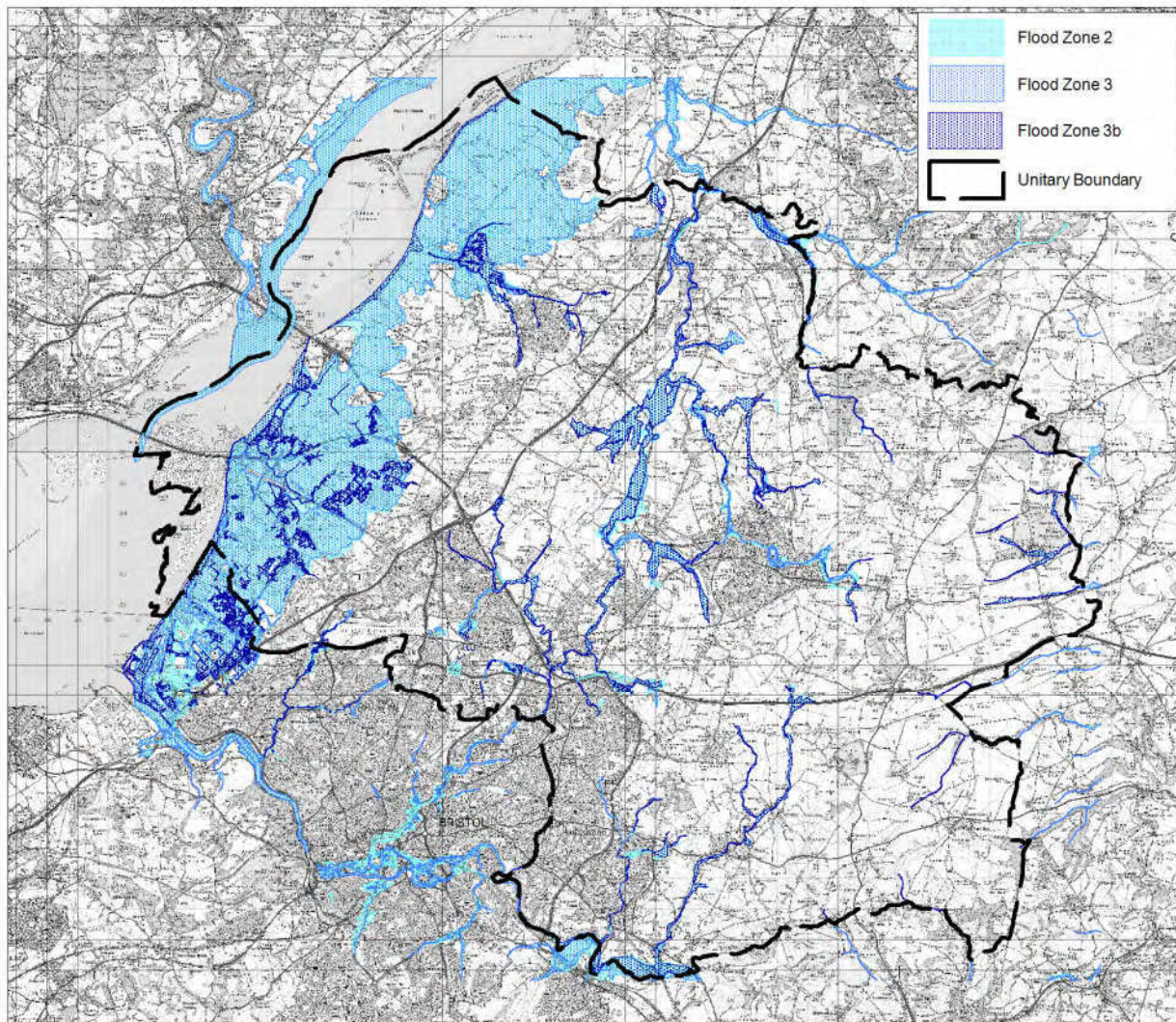
Flood Risk

South Gloucestershire is primarily at risk of flooding from surface water, rivers and the sea. The River Severn and its tributaries are prominent features in South Gloucestershire and as such areas of the district particularly to the west display a high risk of fluvial flooding. The 2012 SFRA notes that the authority can be divided into two catchments; the Bristol Avon catchment, and the Severn Tidal catchment.

- **Bristol Avon Catchment** - Approximately 60% of land within the boundaries of South Gloucestershire Council drains into the River Avon Catchment. This catchment is bounded by the Mendip Hills to the south the Malborough Downs and the Salisbury Plains to the east, the Cotswold Hills to the North and the Severn Estuary to the west. The direction of the River Avon is influenced by the topography and consequently flows from its source to the east in the Cotswolds, west through Bath and Bristol to the Severn Estuary. The longitudinal gradients vary significantly within the major tributaries of the Bristol Avon Catchment.
- **Severn Tidal catchment**- Approximately 40% of South Gloucestershire drains into the River Severn, and thus into a tidal environment. The low lying land in this catchment is generally flat. Many of these low lying areas have been influenced by man over many centuries, including straightening of channels, dredging or bank stabilisation. This area is characterised by the Rhines, streams and ditches that discharge into the Severn Estuary.

The areas of Zone 2 and Zone 3 flooding are indicated on the map overleaf.

Figure A2.6 Map showing the various Flood Zones



Flooding risks from rivers and the sea in South Gloucestershire are relatively well understood and have been managed for many years by the Environment Agency. These risks are mapped and are used to guide planning decisions. However flood risk from other local sources are less well understood; these are typically localised events which are often difficult to predict.

The risk of flooding from groundwater can be difficult to predict due to the 'hidden' nature of the source of flooding and the longer period of onset, as groundwater flooding can occur several days or weeks following heavy rainfall.

Parts of South Gloucestershire are particularly susceptible to surface water flooding. Recent data published by the Environment Agency shows that locations within the urban fringes of north and north east Bristol, such as Filton and Kingswood, as well as Thornbury and southern parts of Yate are predicted to be at greatest risk of surface water flooding. A sustainable approach to drainage mitigates the impact of new development on flood risk and builds resilience to flooding. It also provides opportunities to remove pollutants from urban runoff at source, and combines water management with green space with benefits for amenity, recreation and wildlife

Energy

An estimated annual total of 329.5 Gigawatt (GWh) hours of energy is generated from renewable sources within South Gloucestershire (as of September 2019)²⁹. The largest contributors to renewable energy

²⁹ South Gloucestershire Renewable Energy Progress Report (Regen, March 2020) Note: data is up to September 2019)

generation was solar photovoltaic (PV), and energy from waste (EFW), electricity only. The vast majority of renewable generation comes from renewable electricity. Progress on renewable heat has been far slower.

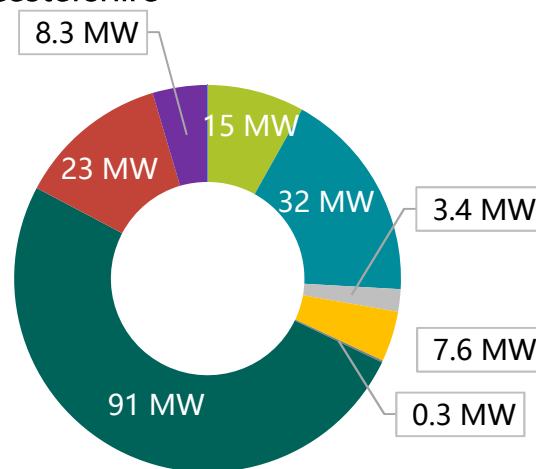
The proportion of annual energy demand currently generated from local renewable energy generation is 4.8%. This remains a similar proportion to that shown for last year, and reflects the low level of increase in installed capacity. Between September 2018 and September 2019, there were 102 new renewable energy projects installed in South Gloucestershire but the total capacity increase was only 0.7 MW, which is less than 10% of the previous year’s increase. This period has seen no projects commissioned that are above 50 kW. Only four types of renewable technology were installed: a single biomass boiler and single solar thermal project, as well as multiple heat pumps and rooftop solar PV projects. In September 2019, South Gloucestershire had a total of 179MW of installed renewable energy capacity, including heat and electricity from 4,610 installations. Solar PV is the largest technology type, making up two-thirds of the capacity installed.

South Gloucestershire Council declared a Climate Emergency on 17 July 2019, and pledged to provide the leadership to enable South Gloucestershire to become carbon neutral by 2030. The South Gloucestershire Climate Change Strategy has been updated to include this revised target. In order to meet this target it will be necessary to maximise the generation of renewable energy from installations located within South Gloucestershire to enable local energy consumption (heat, electricity and transport) to be met from renewable energy sources. The Climate Emergency action plan will support the delivery of increased renewable energy generation capacity in the area. Progress is monitored through the renewable energy annual report prepared by Regen on behalf of the Council.



Installed renewable energy capacity by technology in South Gloucestershire

- Biomass
- Energy from Waste
- Heat Pump
- Landfill Gas
- Solar Thermal
- Solar PV - Ground mounted
- Solar PV - rooftop
- Onshore Wind
- Hydropower



Green Belt

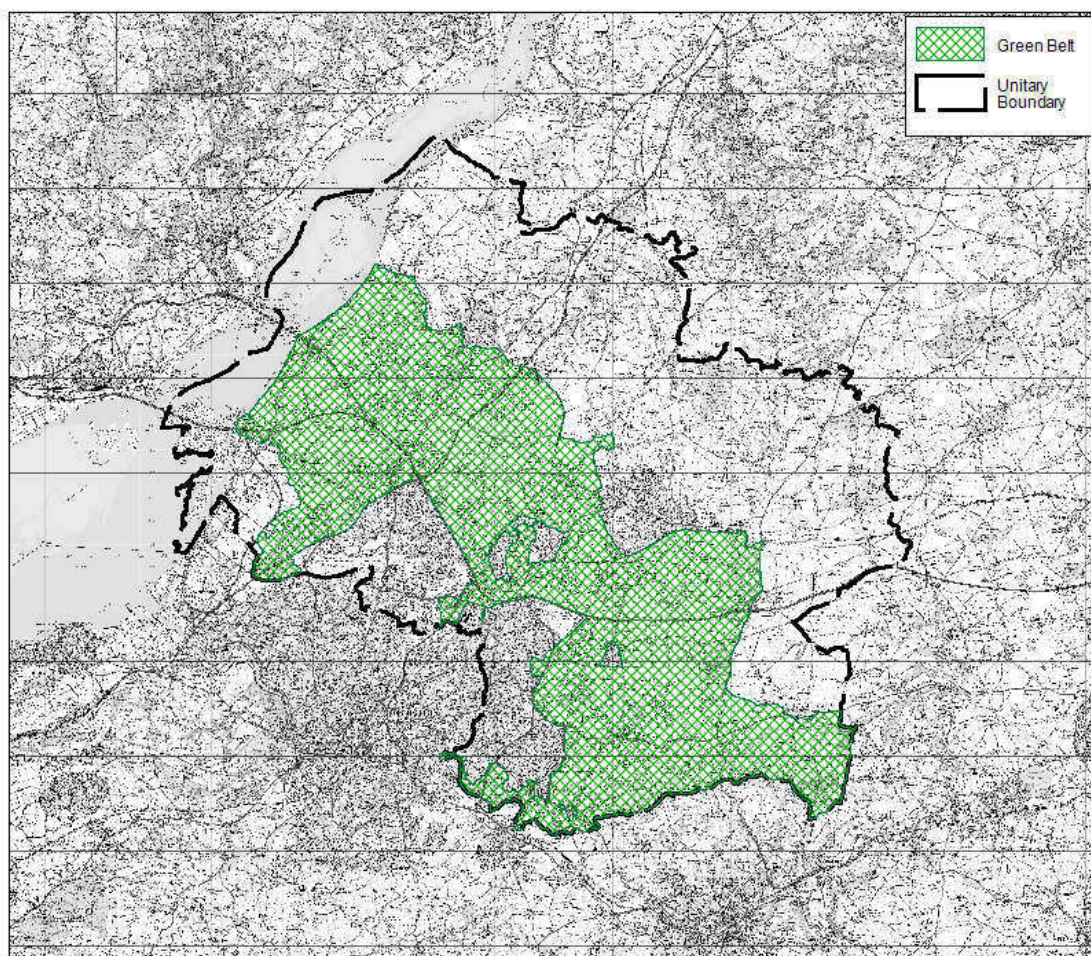
The extent of the designated Green Belt in South Gloucestershire is estimated to cover over 40% of the total land area (23,026ha). The Green Belt in South Gloucestershire is part of the wider Avon Green Belt which surrounds Bristol and Bath and also intersects at the following major settlements in the South Gloucestershire district; Chipping Sodbury, Severn Beach, Thornbury and Yate. The main objective of the Green Belt is to control urban growth and keep land permanently open to allow agriculture, forestry and outdoor leisure to develop. It is important to note that Green Belt is not given planning protection because of landscape or ecological quality, or because areas of land have open space and recreation function. There are also several key policies already in place in South Gloucestershire, such as CS5 (location of development) and PSP7 (development in the Green Belt) help to achieve the control of urban growth by setting out clear circumstances as to where development is both appropriate and permitted.

Given the levels of growth that South Gloucestershire has experienced over the previous years and likely to experience in the future as part of Local Plan 2020, the role and current extent of the Green Belt is

likely to come under investigation and pressure. Ensuring the overall purpose of Green Belt in our area is protected and the recreational value of the Green Belt is enhanced will be a key consideration for the Local Plan.

Following the adoption of the Core Strategy in December 2013, the area of GB within South Gloucestershire has been reduced from 23,231.62 hectares (ha) to 23,026.15ha. This figure accounts for the planned release of GB at land east of Harry Stoke (EoHS), and west of the A4018 as part of the Council's commitment to supporting sustainable development up to 2026/27. In total these areas represent a net loss of 205.47 ha – less than 0.9% of total GB land, and is split between 144.35ha at EoHS and 61.12ha west of the A4018. This release of land from the Green Belt is in accord with the Council's wider objectives as set out in the Core Strategy for new sustainable communities and infrastructure delivery (Stoke Gifford Transport Link) at the East of Harry Stoke and the delivery of Cribbs/ Patchway New Neighbourhoods.

Figure A2.7 Map showing the extent of the Green Belt



Appendix 3

Review of relevant plans, policies and programmes

International Plans and Programmes of Most Relevance for the Local Plan

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.

United Nations Declaration on Sustainable Development (Johannesburg Declaration) (2002) - Sets 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.

European Environmental Noise Directive (2002) - Sets out a hierarchy for the avoidance, prevention and reduction in adverse effects associated with environmental noise, including noise generated by road and rail vehicles, infrastructure, aircraft and outdoor, industrial and mobile machinery.

European Nitrates Directive (1991) - Identifies nitrate vulnerability zones and puts in place measures to reduce water pollution caused by the introduction of nitrates.

European Urban Waste Water Directive (1991) - Protects the environment from the adverse effects of urban waste water collection, treatment and discharge, and discharge from certain industrial sectors.

European Air Quality Framework Directive (1996) and Air Quality Directive (2008) - Put in place measures for the avoidance, prevention, and reduction in harmful effects to human health and the environment associated with ambient air pollution and establish legally binding limits for the most common and harmful sources of air pollution.

European Drinking Water Directive (1998) - Protects human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.

European Landfill Directive (1999) - Prevents and reduces the negative effects on the environment from the landfilling of waste by introducing stringent technical requirements for waste and landfills.

European Water Framework Directive (2000) - Protects inland surface waters, transitional waters, coastal waters and groundwater.

European Waste Framework Directive (2008) - Sets out the waste hierarchy requiring the reduction of waste production and its harmfulness, the recovery of waste by means of recycling, re-use or reclamation and final disposal that does not harm the environment, including human health.

European Industrial Emission Directive (2010) - Lays down rules on integrated prevention and control of pollution arising from industrial activities. It also lays down rules designed 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 taken as a whole.

European Floods Directive (2007) - A framework for the assessment and management of flood risk, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity.

European Energy Performance of Buildings Directive (2010) - Aims to promote the energy performance of buildings and building units. Requires the adoption of a standard methodology for calculating energy performance and minimum requirements for energy performance.

United Nations Paris Climate Change Agreement (2015) - International agreement to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels.

International Convention on Wetlands (Ramsar Convention) (1976) - International agreement with the aim of conserving and managing the use of wetlands and their resources.

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).

International Convention on Biological Diversity (1992) - International commitment to biodiversity conservation through national strategies and action plans.

European Habitats Directive (1992) - Together with the Birds Directive, the Habitats Directive sets the standard for nature conservation across the EU and enables all 27 Member States to work together within the same strong legislative framework in order to protect the most vulnerable species and habitat types across their entire natural range within the EU. It also established the Natura 2000 network.

European Birds Directive (2009) - Requires the maintenance of all species of naturally occurring birds in the wild state in the European territory at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements.

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.

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.

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.

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 Plans and Programmes (beyond the NPPF) of Most Relevance for the Local Plan

Climate change adaption and mitigation

Defra, The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate (2018) - sets out the strategy for adapting both to the climate change that is already evident, and that which we might see in the future.

Department for Transport, Decarbonising Transport: Setting the Challenge (2020) - 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 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.

Defra and the Environment Agency, Understanding the risks, empowering communities, building resilience: The National Flood and Coastal Erosion Risk Management Strategy for England (2011) - 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. An update to the document (Draft National Flood and Coastal Erosion Risk Management Strategy for England, 2019) was published for consultation up to July 2019.

Ministry of Housing, Communities and Local Government, National Planning Policy for Waste (NPPW) (2014) - sets out a number of key planning objectives. It requires that local planning authorities help deliver sustainable development through measures including driving waste management up the waste hierarchy; ensuring that waste management is considered alongside other spatial planning

concerns; and providing a framework in which communities can take more responsibility for their own waste.

Defra, Waste Management Plan for England (2013) - sets out the measures for England to work towards a zero waste economy.

HM Government, The Clean Growth Strategy (2017) - sets out the approach of the government to secure growth of the national income while cutting greenhouse gas emissions. The key policies and proposals of the Strategy sit below a number of overarching principles: acceleration of clean growth including through recommendations for private and public investment to meet carbon budgets; providing support to improve business and industry energy efficiency; improving energy efficiency in the housing stock including through low carbon heating; accelerating the shift to low carbon transport; delivering clean, smart, flexible power; enhancing the benefits and value of our natural resources; leading in the public sector to meet emissions targets; and ensure Government leadership to drive clean growth.

Health and well-being

Public Health England, PHE Strategy 2020-25 - 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.

HM Government, Laying the foundations: a housing strategy for England (2011) - aims to provide support to the delivery of new homes and to improve social mobility.

Ministry of Housing, Communities and Local Government, Planning Policy for Traveller Sites (2015) - to be read in conjunction with the NPPF, this policy document sets out the Government's planning policy for Traveller sites to ensure fair and equal treatment for Travellers.

Environment (biodiversity/geodiversity, landscape and soils)

Defra, A Green Future: Our 25 Year Plan to Improve the Environment (2018) - 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 gov.uk website notes that the 25 Year Plan sits alongside two other important government strategies: the Industrial Strategy and Clean Growth Strategy (the former summarised in the Economic growth section below, the latter under Climate Change above).

Defra, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011) - Guides conservation efforts in England up to 2020 by requiring a national halt to biodiversity loss, supporting healthy ecosystems and establishing ecological networks.

Defra, Biodiversity offsetting in England Green Paper (2013) - sets out a framework for biodiversity offsetting. Offsets are conservation activities designed to compensate for residual losses.

Defra, Safeguarding our Soils – A Strategy for England (2009) - 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.

Historic environment

The Heritage Alliance, Heritage 2020 - sets out the historic environment sector's plan for its priorities between 2015 and 2020.

Historic England, Corporate Plan 2018-2021 - contains the action plan which sets out how the aims of the corporate plan will be delivered. The plan includes priorities to demonstrate how Historic England will continue to work towards delivering the heritage sector's priorities for the historic environment.

Historic England, Sustainability Appraisal and Strategic Environmental Assessment: Historic England Advice Note 8 (2016) - 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 processes.

Water and air

Environment Agency, Managing Water Abstraction (2016) - is the overarching document for managing water resources in England and Wales and links together the abstraction licensing strategies.

Defra, Water White Paper (2012) - Sets out the Government's vision for the water sector including proposals on protecting water resources and reforming the water supply industry. It states outlines the measures that will be taken to tackle issues such as poorly performing ecosystem, and the combined impacts of climate change and population growth on stressed water resources.

Defra, Clean Air Strategy (2019) - sets out the comprehensive action that is required from across all parts of government and society to meet goals relating to ensuring cleaner air. This is to 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. The UK has set stringent targets to cut emissions by 2020 and 2030.

Economic growth

HM Government, Industrial Strategy: building a Britain fit for the future (2017) - sets out a long-term policy framework for how Britain will be built to be fit for the future in terms of creating successful, competitive and open economy. It is shaped around five 'foundations of productivity' – the essential attributes of every successful economy: Ideas (the world's most innovative economy); People (good jobs and greater earning power for all); Infrastructure (a major upgrade to the UK's infrastructure); Business Environment (the best place to start and grow a business); Places (prosperous communities across the UK).

Infrastructure and Projects Authority, National Infrastructure Delivery Plan 2016-2021 - brings together the Government's plans for economic infrastructure over this five year period with those to support delivery of housing and social infrastructure.

LEP Network, LEP Network Response to the Industrial Strategy Green Paper Consultation (2017) - seeks to ensure that all relevant local action and investment is used in a way that maximises the impact it has across the Government's strategy. Consultation responses set out how the 38 Local Enterprise Partnerships will work with Government using existing and additional resources to develop and implement a long-term Industrial Strategy.

Transport

Department for Transport, The Road to Zero (2018) - 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.

Regional Plans and Programmes of Most Relevance for the Local Plan

West of England Strategic Green Infrastructure Framework (2011) – The purpose of this plan is to maintain a functional and connected strategic Green Infrastructure network and maximise opportunities for enhancing the network.

West of England Joint Waste Core Strategy Development Plan Document (adopted March 2011) - The four West of England unitary authorities (South Gloucestershire, Bristol City, Bath & North East Somerset and North Somerset Councils) adopted the Joint Waste Core Strategy in March 2011. This sits alongside the South Gloucestershire Core Strategy, adopted in December 2013. It sets targets for which household landfill waste should reduce, and increasing the amount of waste recycled.

Avonmouth/ Severnside Strategic Flood Risk Assessment (2011) - The aim of the study was to provide evidence to avoid areas of highest flood risk in the Avonmouth area. It also estimated the likely flood risk from the sea and rhine network to various development sites.

Cotswolds Area of Outstanding Natural Beauty Management Plan 2013-2018 - The Cotswolds Conservation Board - The purpose of this plan is to conserve and enhance the natural beauty of the AONB, and to increase the understanding and enjoyment of the special qualities of the AONB.

West of England Strategic Economic Plan 2015 – 2030 (2014) - The SEP looks to create the right conditions for business to thrive. Give confidence and certainty to our investors to attract and retain investment to stimulate and incentivise growth; ensure a resilient economy, which operate within the environmental limits. That is low carbon and resource efficient economy, increases natural capital and is proofed against future environmental, economic and social shocks; Create places where people want to live and work, through delivery of cultural infrastructure, including broadband, transport and housing to unlock suitable locations for economic growth; Shape the local workforce to provide people with skills that businesses need to succeed and that will provide them with job opportunities; Ensure all our communities share in the prosperity, health and well-being and reduce the inequality gap.

WoE Sustainable Drainage Developer Guide (2015) - A sustainable approach to drainage mitigates the impact of new development on flood risk and builds our resilience to flooding. It also provides opportunities to remove pollutants from urban runoff at source, and combines water management with green space with benefits for amenity, recreation and wildlife. This guide signposts to existing policy and guidance to support the delivery of a sustainable approach to the drainage of new development in the West of England.

Recreational Boating in the Severn Estuary (2016) – This study focuses specifically on recreational boating within the Severn Estuary EMS. It provides information on the distribution and intensity of water-based recreation, along with existing management practices. The study outlines possible environmental impacts arising from recreational boating, and provides advice on how to manage recreation. The aim of the study is to inform relevant authorities about current and potential future activities in the area and management measures in place, ensure recreational data is accurate, and to provide Natural England and Natural Resources Wales with information to help determine if activities are likely to have a significant effect on the EMS.

The Severn Estuary High Tide Water Bird Roost Study (2017) – This study identifies roost sites in the Severn Estuary SPA, and provides information on wintering waterbird high tide roosts. It aims to capture the knowledge of local British Trust for Ornithology Wetland Bird Survey counters, map the roost locations of the SPA birds, describe the SPA bird assemblage and record the characteristics of each roost. The study will inform the Severn Estuary Wintering Wader Refuge Area Plan and/or other mitigation measures for potentially disturbing activities, the SSSI Detailed Notification Review process, and condition assessment of the Severn Estuary SPA.

Severn Estuary European Marine Site Management Scheme (2018-2023) – This management scheme, seeks to ensure the management of activities within the Severn Estuary EMS is compliant with UK law and the EC Habitats and Birds Directives. It aims to help conserve and avoid the deterioration of the natural habitats and species within the Severn Estuary EMS. It outlines management activities to be undertaken by each relevant authority. **Local Industrial Strategy (2019)** - Invest in infrastructure that reduced energy demand, lowers carbon emissions and is resilient to the impacts of climate change;

Strengthening innovation and driving productivity; Supporting all residents to contribute to and benefit from economic success; Providing businesses with the space, networks and skills they need to boost productivity, grow and thrive.

West of England Joint Green Infrastructure Strategy 2020-2030 - Provides key concepts and tools to enable a consistent approach to green infrastructure across the West of England. The strategy also sets out the role and the current extent of the existing network highlighting issues and opportunities for enhancement.

West of England Local Cycling and Walking Infrastructure Plan (2020-2036) – Seeks to prioritise improvements which will bring about the greatest increases in walking and cycling (which tend to be in urban areas) across the West of England authorities.

This Plan proposes improvements to the walking environment focussing on 30 local high streets (totalling £105 million), as well as improvements along 55 continuous cycle routes (totalling £306 million), with the aim of providing high quality infrastructure to support our transition to a region where walking and cycling are the preferred choice for shorter trips and to access public transport. The plan seeks to make it accessible for all users, including those using mobility aids, kick scooters, and adapted cycles, whilst simultaneously future proofing for new modes such as electric scooters and other forms of sustainable, individual transport modes to travel around the area.

West of England Joint Transport Plan 4 (JLTP 4) – 2020-2036 - The Joint Local Transport Plan aims to ensure that transport is carbon neutral by 2030. To do this, there has to be a substantial shift towards cleaner and greener and more sustainable forms of transport. The JLTP 4 seeks to maximise every opportunity and work in partnership with sustainable transport organisations, bus and rail operators, to encourage and help people switch from cars to cycling, walking and public transport. The aim is that by 2036, the West of England will be a carbon neutral community where walking and cycling are the preferred choice for shorter journeys, and the vast majority of vehicles on the road are decarbonised and no longer powered by fossil fuels. The plan aims to increase the choices available for travel.

West of England Local Housing Needs Assessment (LHNA) (Currently being compiled) - As part of the development of the Spatial Development Strategy (SDS), regional work is currently being undertaken to establish the housing requirements for the area. The LHNA should estimate housing need and demand in terms of affordable and market housing, determine how the distribution of need and demand varies across the area, consider future demographic trends and identify the accommodation requirements of specific groups and the likely mix of housing. The LHNA is a key evidence document and also provides baseline information for SA.

Local Plans and Programmes of Most Relevance for the Local Plan

Neighbouring Local Plans

Bath and North East Somerset Core Strategy (Adopted 2014) and Placemaking Plan (Adopted 2017) - The Core Strategy and Placemaking Plan both have a number of key objectives. These are:

Pursuing a low carbon and sustainable future in a challenging climate;

- Protect and enhance the District's natural, built and cultural assets and provide green infrastructure;
- Encourage economic development, diversification and prosperity;
- Invest in our city, town and local centres;
- Meet housing need;
- Plan for development that promotes health and well-being; and
- Deliver well-connected places accessible by sustainable means of transport.

The Bath and North East Somerset Core Strategy outlines that approximately 13,000 new homes are to be delivered throughout the plan period up to 2029. Additionally, the Core Strategy outlines needs for 50,000m² of office floorspace throughout the plan period.

In addition to this, work is currently underway on the revised Local Plan 2016 to 2036.

Bath and North East Somerset Local Plan 2016-2036 (Options Consultation - 2018) - ongoing work into the replacement plan sees the spatial priorities remain similar to those of the Core Strategy and Placemaking Plan. The withdrawal of the West of England TSP means that Bath and North East Somerset cannot currently continue work on the Local Plan 2016-2036. In the short term, a Partial Update of the adopted Local Plan 2011-2029 is being undertaken by Bath and North East Somerset. The Local Plan Partial Update Commencement Document was published for consultation in April 2020.

Bristol Core Strategy (Adopted June 2011) - The main objectives here are:

- Ensuring a sustainable future for Bristol
- Mixed, balanced and sustainable communities
- Ambitious and sustainable economic growth
- Appropriate housing provision
- Better health and wellbeing
- High quality built environment
- High quality natural environment
- Improved accessibility and connectivity
- Effective waste management
- Adapting to climate change and promotion of renewable energy
- Community involvement and engagement.

The Bristol Core Strategy outlines that approximately 26,400 new homes are to be delivered from identified sites throughout the plan period (2006-2026). Additionally, the Core Strategy outlines 236,000m² of office floorspace, and 10 hectares of industrial and warehousing land will need to be provided over the plan period.

Bristol City Council is currently in the process of reviewing the Local Plan. A consultation on the Local Plan Review, including draft policies, site allocations and proposals for the protection of open space was held from March to May 2019, and further consultation on issues and options for development expected in 2021. The draft review outlines plans to deliver 33,500 homes by 2036.

Cotswold District Local Plan 2011-2031 (Adopted August 2018) – The main objectives are:

- Conserve and enhance the high quality of the natural and historic environment.
- Ensure new development is of high quality and sustainable design, which reflects local character and also provides attractive inclusive environments.
- Protect open countryside against sporadic development, whilst avoiding coalescence of settlements, particularly around Cirencester.
- Support delivery of new Green Infrastructure.
- Provide adequate supply of housing, housing types and tenures to meet objectively assessed needs.
- Identify suitable land in appropriate locations to provide sufficient pitches for gypsy and traveller accommodation.
- Support local economy and enable creation of more high quality jobs in the District, which meet local employment needs.
- Encourage vitality and viability of town and village centres, including maintaining Cirencester's key employment and service role.

- Support sustainable tourism.
- Reduce car use by:
 - Locating majority of development in sustainable locations where there access to employment, services and facilities and public transport.
 - Supporting improvements in public transport and walking/cycling networks.
- Reduce environmental impact of development and vulnerability to the impacts of climate change by:
 - Maximising water and energy efficiency, promoting renewable energy use and sustainable construction methods, and reducing pollution and waste.
 - Supporting the principle of waste minimisation.
 - Locating development away from high flood risk areas.

The Cotswold District Local Plan sets out that sufficient land is allocated to deliver at least 8,400 dwellings and at least 24ha for B class employment use during the plan period 2011 to 2031. Principal Settlements in the District have been identified as the most sustainable locations to accommodate this growth, with Cirencester being the District's main centre.

South West Inshore and South West Offshore Marine Plan (Draft for consultation – January 2020) – The South West Offshore Marine Plan area covers approximately 2,00 kilometres of coastline from the River Severn border with Wales to the River Dart in Devon. The main objectives of the plan are to ensure:

- Infrastructure is in place to support and promote safe, profitable and efficient marine businesses.
- The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all.
- Marine businesses take long-term strategic decisions and manage risk effectively.
- Marine businesses act in a way which respects environmental limits and is socially responsible. This is rewarded in the market place.
- People appreciate the diversity of the marine environment, its seascapes, its natural and cultural heritage, and its resources.
- The use of the marine environment is benefitting society as a whole, contributing to resilient and cohesive communities that adapt to coastal erosion and flood risk.
- The coast, seas, oceans and their resources are safe to use.
- The marine environment plays an important role in mitigating climate change.
- There is equitable access for those who want to use and enjoy the coast, seas and their wide range of resources and assets.
- Use of the marine environment will recognise and integrate with defence priorities, including strengthening of international peace and stability and the defence of the United Kingdom and its interests.
- Biodiversity is protected, conserved and recovered.
- Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.
- Our oceans support viable populations of representative, rare, vulnerable and valued species.

Stroud's Local Plan (Adopted 2015) – The Local Plan sets out a number of key objectives. These are:

- Maintaining and improving accessibility to services and amenities (healthcare for all residents' affordable housing and decent housing for local needs; active social, leisure and recreation opportunities; and youth and adult learning opportunities).

- Providing for a strong, diverse, vibrant local economy that enables balanced economic growth, coupled with enhanced job opportunities across the district;
- Improving the safety, vitality and viability of our town centres, which link to and support the needs of their rural hinterlands;
- Promoting healthier alternatives to the use of the private car and seeking to reduce CO2 emissions by using new technologies, active travel and/or smarter choices, working towards a more integrated transport system to improve access to local goods and services.
- Promoting a development strategy that mitigates global warming, adapts to climate change and respects our environmental limits by:
 - Securing energy efficiency through building design
 - Maximising the re-use of buildings and recycling of building materials
 - Minimising the amount of waste produced and seeking to recover energy
 - Promoting the use of appropriately located brownfield land
 - Supporting a pattern of development that facilitates the use of sustainable modes of transport
 - Minimising and mitigating against future flood risks, recycling water resources and
 - protecting and enhancing the quality of our District's surface and groundwater resources
- Conserving and enhancing Stroud District's distinctive qualities, based on landscape, townscape and biodiversity.

The Stroud Local Plan outlines that approximately 11,400 new homes are to be delivered over the plan period up to 2031. The Local Plan outlines that many of these homes are built or are firm 'commitments', leaving a residual housing requirement of 3,615 homes. Additionally, the Local Plan outlines need to provide approximately 58ha of additional employment land (B1-B8) by 2031.

Stroud District Council are currently in the process of preparing a Local Plan with a plan period up to 2040. The draft Local Plan seeks to deliver 10,000 homes by 2040, and at least 50 ha of employment (B1-B8) land between 2020 and 2040. An additional consultation on housing options considering the potential need to accommodate an additional 1,050 – 2,400 homes up to 2040 was undertaken by the Council from October 2020.

Wiltshire Core Strategy (2015) - The Wiltshire Core Strategy notes six key objectives; deliver a thriving economy; address climate change; provide everyone with access to a decent, affordable home; help build resilient communities; protecting and enhancing the natural, historic and built environment; and ensuring that adequate infrastructure is in place to support the communities.

Wiltshire Core Strategy makes provision for the at least 42,000 new homes over the 2006-2026 plan period. Additionally, the Core Strategy outlines need to provide approximately 178 ha of new employment land over the plan period.

Wiltshire Council is currently in the process of reviewing the Local Plan to cover the period up to 2036. Consultation on the issues and options took place in November-December 2017.

Other South Gloucestershire Plans and Strategies

South Gloucestershire Council Strategic Flood Risk Assessment – Level 1 (2009) and Level 2 (2011) - Level 1 of this study defines extent of Flood Zones 3 and 2, as well as Historic flood events and incidents/call outs. However, the climate change extents not defined. Level 2 provides guidance and advice on flood risk management and sustainable urban drainage systems (SUDS) and Specific Flood Risk Assessments. Again, it defines extent of FZ 3 and 2, depth, velocity, hazard and surface water (30yr and 200yrs) and with climate change and historic flood events.

South Gloucestershire Council Plan 2016-2020 - The Council plan has a number of high level objectives that the Council is seeking to address. These are:

- to enhance our natural and built environment, develop low-carbon, health promoting, integrated communities with a strong sense of place connected by well-planned transport networks
- maximise opportunities to access first class education, reduce the attainment gap and prosper through a balanced economy, a well-trained workforce and sustainable jobs for all
- engage people of all ages so they feel they belong and can help provide local solutions; support communities so they are safe and feel safe and have access to services of an optimum quality
- promote personal well-being, reduce health inequalities and deliver high quality physical and mental health and social care services which protect our most vulnerable and offer people greater choice and control within strong, self-supporting communities

South Gloucestershire Health and Wellbeing Strategy (2017-21)

Improve educational attainment and raise aspirations through promotion of health and wellbeing in schools and colleges.

- Promote and enable positive mental health and wellbeing through the life-course.
- Promote and enable good nutrition, physical activity and a healthy weight through the life course.
- Maximise the potential of our built and natural environment to enable healthy lifestyles and prevent disease

South Gloucestershire Council Economic Development Strategy 2012 – 2016 (2012) sets out a number of strategic objectives that are:

- To improve production and competitiveness, and safeguard and increase jobs in key sectors;
- To increase the number, survival rates and growth rates of starter and small enterprises including social enterprises to maintain a diverse, vibrant, sustainable economy.
- To raise aspirations and skill levels throughout schools, colleges and universities and meet the skill and workforce needs of local employers;
- Improve standards in our schools so young people realise their aspirations and are well prepared for the future;
- Ensure that all parts and groups of the district share the benefit of economic development;
- To meet the land, premises and infrastructure requirements of businesses where it is sustainable and consistent with employment and regeneration objectives.

South Gloucestershire Council Rural Affordable Housing Pledge (2013) - The aim of this document is to encourage rural communities to consider their current and future housing needs and long term sustainability.

Housing Strategy for South Gloucestershire 2013 – 2018

The aim of the strategy is for everyone in South Gloucestershire to be able to live in a good quality home that meets their needs and that they can afford. The Council will work with partners to tackle the range of housing issues that affect residents to achieve the following ambitions:

- Quality, choice, right for you;
- affordable, sustainable and investing in communities; and
- Friendly, safe communities we are proud of Well-planned places for a greener future.

Local Flood Risk Management Strategy (2015) sets out a list of objectives in order to minimise and mitigate against the impact of flooding, such as prioritising and implementing improvements to local flood infrastructure; increase public awareness of the level of flood risk; improve understanding about how drainage will influence the risk of flooding, and how climate change will influence future flood risk.

SGC Sustainable Community Strategy (2016) - Ensure resources are used wisely, reduce carbon emissions, prevent pollution and waste, and conserve and enhance the environment for future generations. Its purpose is to promote a greater understanding and mutual respect between different sectors and a selection of the community; empower all people to participate and become involved in decisions which affect the area. In addition, to find simple and effective ways of working together that improve efficiency, make the most of the resources and ensure value for money

South Gloucestershire Biodiversity Action Plan (2016-2026)

Focuses on creating ecological networks and enhancing ecosystem services, and now forms part of the UK's commitment under the CBD. It should be read in conjunction with the previous BAP (2006-2015), which still contains relevant information on the biodiversity of South Gloucestershire.

South Gloucestershire Climate Change Strategy 2018- 2023 – Looks to:

- Increase resilience to climate change - a safe and healthy place to live and do business;
- Enable reductions in greenhouse gas emissions from energy consumption in homes, transport and businesses in South Gloucestershire;
- Enable the development of secure supplies of renewable and low carbon energy by individuals, community groups and industry;
- Support new development to minimise additional associated greenhouse gas emissions; and
- Develop the low carbon economy.

Since adoption of this strategy, the Council has declared a Climate Emergency. A new strategy is currently being developed that will set out new targets and aims to align with our declared Climate Emergency.

The **Commissioning of School Places Strategy 2019/2026** pulls together the information required to form a strategic view of the need for school places across South Gloucestershire. It provides a summary analysis of current provision, identifies gaps and over-provision and sets out how the LA intends to address these. Specifically, the strategy provides a revised and updated policy framework for considering the following:

- statutory proposals, (opening, closing and defining the size and organisation of schools);
- planning and commissioning new school provision; and
- supporting the development of school organisation change including informal and formal school partnership arrangements which support school to school improvement and make efficient use of resources

Small and Rural Schools Strategy (June 2020) - helps to build on the aims and objectives of the COPS especially for small and rural schools as there are very specific pressures faced by them, mostly as a result of relatively low numbers of children on roll. The Small and Rural Schools Strategy sets out the sustainability of those schools (defined under this category) by developing collaborative models of leadership and a joined-up approach to planning and housing delivery.

Draft South Gloucestershire Council Plan, 2020-2024- The Council is in the process of updating its current Council Plan and as part of this, public consultation was held from May to July 2020 to gauge the views of residents. In this updated plan, the Council is proposing the following key priorities for the future: Creating the best start in life for our children and young people; helping people to help themselves; promoting sustainable inclusive communities, infrastructure and growth and realising the full potential of people and assets. The comments received from the consultation will help further shape content of both the Local Plan 2020 and information in the Scoping Report and future sustainability objectives.

Appendix 4

Effects criteria for site appraisal work

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
1. Climate Change	<p>1a. To minimise the District’s contribution to climate change through a reduction of greenhouse gas emissions from all sources and facilitate the aim of carbon neutrality by 2030</p> <ul style="list-style-type: none"> • Promote energy efficient and water efficient design • Encourage the provision and use of renewable energy infrastructure <p>NB: Greenhouse gas emissions associated with travel were covered under another SA objectives</p>	TBC	TBC
	<p>1b. To support the District’s adaptation to unavoidable climate change.</p> <ul style="list-style-type: none"> • Promote design which will help to mitigate the effects of climate change (for example through appropriate building orientation and appropriate incorporation of SuDS)? • Support the protection, restoration, creation, enhancement and the multi-functionality of the green/blue infrastructure network? 	TBC	TBC
Improve the health, safety and wellbeing of all	<p>2a. Achieve reasonable access to public open space (Designated Open Spaces, Town and Village Greens) and Public Rights of Way, taking into account quality and quantity</p> <p>Reasonable Distance</p> <p><i>In line with South Gloucestershire planning policy quality standards established in the Open Space Audit</i></p> <p>Reasonable Distance</p> <p><i>In line with South Gloucestershire planning policy quality standards established in the Open Space Audit</i></p>	<p>Significant positive</p> <p>Provision of public open space or Public Rights of Way as part of development that is easily accessible AND/OR Development in location within reasonable distance to two public open spaces AND immediately accessible to a Public Rights of Way.</p> <p>Minor positive</p> <p>Development within reasonable distance to a public open space AND/OR immediately</p>	<p>Uncertain significant negative</p> <p>Development on public open space which could reduce quantity, quality AND/OR accessibility (which could result in mixed effects overall)</p> <p>Minor negative</p> <p>Development does not include provision of open space that is easily accessible AND</p> <p>Development not within reasonable distance to a public</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
		accessible to a Public Right of Way.	open space OR Public Right of Way.
	<p>2b. Minimise the impact of noise on sensitive receptors</p> <p>Sensitive uses = residential, schools</p> <p>Relevant Distance</p> <p><i>Adjacent to noise generating uses</i></p>	None	<p>Significant negative</p> <p>Sensitive developments located adjacent to noise generating uses e.g. major roads and infrastructure, heavy industry</p>
	<p>2c. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality</p> <p>Sensitive uses = residential, schools, children's facilities, nursery's, elderly people accommodation</p> <p>Relevant Distance</p> <p><i>Sites that are directly within or on routes that lead directly to an AQMA (both within and outside of the District)</i></p>	<p>Significant Positive</p> <p>TBC</p>	<p>Significant negative</p> <p>No consideration or inclusion of mitigation techniques/methods proposed for sensitive development in areas of high air pollution and AQMAS</p> <p>Development which will significantly increase pollution as a result of traffic in and around AQMAS</p> <p>Development that will place sensitive uses within AQMAS</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p>2d. Achieve reasonable sustainable access to healthcare services and facilities (Doctors and Dentists)</p> <p>Reasonable walking and cycling distance</p> <p><i>GP Surgery 800m</i></p> <p><i>Dentist 800m</i></p> <p>Reasonable public transport access</p> <p><i>Significant positive – Under 20 minutes</i></p> <p><i>Minor positive – Under 30 minutes</i></p> <p><i>Minor negative – 30 to 40 minutes</i></p> <p><i>Significant negative – Over 40 minutes</i></p>	<p>Significant positive</p> <p>Development generating need for health facilities located within reasonable walking and cycling distance of all types of health facilities OR public transport to places containing health services and facilities, with journey time under 20 minutes.</p> <p>Minor positive</p> <p>Development within reasonable walking and cycling distance of some, but not all health services and facilities, AND/OR public transport to places containing health services and facilities, with a journey time between 20 and 30 minutes</p>	<p>Significant negative</p> <p>Development generating need for health facilities beyond reasonable walking and cycling access to any health facilities AND public transport to places containing health services and facilities that takes over 40 minutes</p> <p>Minor negative</p> <p>Development beyond reasonable walking and cycling access to any health facilities AND public transport to places containing health services and facilities, which takes 30 – 40 minutes</p>
Support communities that meet people's needs	3a. Deliver a suitable quantum of high quality housing for South Gloucestershire.	<p>TBC</p> <p>Contribute to meeting housing requirement - target and criteria to be established. Informed by approach taken at sub regional level in the Spatial Development Strategy (SDS).</p>	<p>TBC</p> <p>Contribute to meeting housing requirement - target and criteria to be established. Informed by approach taken at sub regional level in the Spatial Development Strategy (SDS).</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p>3b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within south Gloucestershire</p>	<p>Significant positive Development that assists meeting affordable housing target Development that delivers a well-integrated mix of homes of different types and tenures to support a range of household sizes, ages and incomes.</p> <p>.</p> <p>Minor positive Contributes on a limited basis to meeting affordable housing target Development that contributes on a limited basis to delivering well-integrated mix of homes of different types and tenures to support a range of household sizes, ages and incomes.</p> <p>Sites that would accommodate fewer than 10 homes³⁰.</p>	
	<p>3c. Achieve reasonable sustainable access to community facilities (Post Office, Dedicated Community Centre, Public House, Library)</p> <p>Reasonable walking or cycling distance</p> <p><i>Post Offices 800m</i></p>	<p>Significant positive Development generating need for community facilities are within reasonable walking and cycling distance of all facilities, OR public transport to places</p>	<p>Significant negative Development generating need for community facilities beyond reasonable walking and cycling access distance of any AND public transport to places</p>

³⁰ Planning Practice Guidance states that affordable housing should only be sought for residential development 10 or more homes. It is expected that sites of this size or larger could potentially provide affordable homes, thereby contributing to a more appropriate mix of housing in the District. As such a significant positive effect will recorded for sites with capacity for this number of homes or more.

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p><i>Dedicated Community Centres 800m</i></p> <p><i>Public House 800m</i></p> <p><i>Library 800m</i></p> <p>Reasonable public transport access</p> <p><i>Significant positive – Under 20 minutes</i></p> <p><i>Minor positive – Under 30</i></p> <p><i>Minor negative – 30 to 40 minutes</i></p> <p><i>Significant negative – Over 40minutes</i></p>	<p>containing community facilities, with a journey time under 20 minutes. Provision of community facilities as part of any allocation</p> <p>Minor positive</p> <p>Development within reasonable walking and cycling distance of some, but not all community facilities, AND/OR public transport to places containing community services and facilities, with a journey time between 20 and 30 minutes</p>	<p>containing community facilities, which takes over 40 minutes Loss of currently used and valuable community asset</p> <p>Minor negative</p> <p>Development beyond reasonable walking and cycling access to any community facilities AND public transport to community services and facilities, which takes 30 – 40 minutes</p>
	<p>3d. Achieve reasonable sustainable access to educational facilities (primary schools, secondary schools)</p> <p>Reasonable walking or cycling distance</p> <p><i>Primary School 2miles</i></p> <p><i>Secondary School 3miles</i></p>	<p>Significant positive</p> <p>Development generating need for education facilities are within reasonable walking and cycling distance of primary and secondary schools Development which adds to capacity of educational facilities.</p> <p>Minor positive</p> <p>Development within reasonable walking distance of a primary OR secondary school but not both.</p>	<p>Significant negative</p> <p>Development generating a need for educational facilities beyond a reasonable walking and cycling distance to a primary and secondary school.</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p>3e. Achieve reasonable sustainable access to retail and food buying services and facilities (Town and District Centres or local comparison stores, supermarkets and local convenience stores)</p> <p>Reasonable walking and cycling distance</p> <p><i>Town and District Centre: 1200 metres</i></p> <p><i>Supermarkets: 1200 metres</i></p> <p><i>Local convenience and comparison stores: 1200metres</i></p> <p>Reasonable public transport</p> <p><i>Significant positive – Under 20 minutes</i></p> <p><i>Minor positive – Under 30</i></p> <p><i>Minor negative – 30 to 40 minutes</i></p> <p><i>Significant negative – Over 40 minutes</i></p>	<p>Significant Positive</p> <p>Development generating need for retail and food buying within reasonable walking and cycling distance of all retail and food buying services and facilities OR public transport to town centre and food buying facilities, with journey time under 20 minutes. AND/OR Development which adds to the retail and leisure services and facilities within a town or district centre.</p> <p>Minor positive</p> <p>Development within reasonable walking and cycling distance of some, but not all retail and food buying services and facilities, AND/OR public transport to town centre and food buying facilities, with journey time between 20 and 30 minutes</p>	<p>Significant Negative</p> <p>Development generating need for retail and food buying beyond reasonable walking and cycling distance of any retail and food buying services and facilities AND public transport to town centre and food buying services and facilities takes over 40 minutes</p> <p>Minor negative Development beyond reasonable walking and cycling access to any retail and food buying services and facilities AND public transport to town centre and food buying services and facilities, which takes 30 – 40 minutes</p> <p>Development that would reduce the retail and leisure services and facilities within a town or district centre</p>
	<p>3f. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage around Kingswood; Staple Hill and Yate</p> <p>Relevant distance</p>	<p>Significant Positive</p> <p>Development that provides employment opportunities within areas identified as the</p>	

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p><i>Significant Positive –</i> <i>Within areas identified as most deprived 20%</i> <i>Minor positive - Adjacent to areas identified as most deprived 20%</i></p>	<p>most deprived 20% of areas in England Development (i.e. residential or other types of development) that helps to regenerate the areas identified as the most deprived 20% of areas in England</p> <p>Minor positive Development that provides good access to employment opportunities (i.e. is adjacent to) for the areas identified as the most deprived 20% of areas in England</p>	
	3g. Improve access to high speed broadband	<p>Significant Positive Potential for access to super-fast broadband</p> <p>Minor positive Potential for access to good broadband coverage</p>	Significant Negative No access to broadband coverage
Develop a diverse and thriving economy that	4a. Deliver a reasonable quantum of employment floorspace	Significant Positive	Significant negative Development leads to loss of current active or suitable employment site,

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
meets people's needs		<p>Development provides significant (1.0ha) additional employment land³¹ Development increases diversity of work opportunity</p> <p>Minor positive Development provides enhanced or a minor amount of additional employment land (i.e. less than 1.0ha)</p>	<p>Development leads to loss of diversity of work opportunity</p>
	<p>4b. Achieve reasonable sustainable access to major employment areas</p> <p>Employment Areas within 2km walk or 5.6km cycle</p> <p><i>Enterprise Areas/Zones (EAs)</i> <i>Major Employer (100+ employees)</i> <i>Safeguarded Employment Areas</i> <i>Town Centres</i></p> <p>Reasonable public transport</p> <p><i>Significant Positive – Under 20 minutes</i> <i>Minor positive – Under 30</i> <i>Minor negative – 30 to 40 minutes</i> <i>Significant negative – Over 40 minutes</i></p>	<p>Significant Positive Development generating need for employment within walking/cycling distance of an Enterprise Areas/Zones, or a wide range of unique Safeguarded Employment Areas, Major Employers or Town Centres, AND/OR public transport to an EZ, or a wide range of unique Major Employers, Safeguarded Employment Areas or Town Centres, with journey times under 20 minutes.</p> <p>Minor positive</p>	<p>Significant negative Development generating need for employment beyond walking/cycling distance of any employment areas AND public transport to any employment areas which takes over 40 Minutes</p> <p>Minor negative Development generating need for employment outside walking and cycling distance of a Safeguarded Employment Area, Major Employer or Town Centre AND public transport to</p>

³¹ The threshold for identifying the significance of the effects in relation to this SA objective has been set in line with national planning policy guidance. For non-residential development, major development is defined in the National Planning Policy Framework as development where a site is 1ha or larger.

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
		Development generating need for employment within walking/cycling distance of one or more unique Safeguarded Employment areas, Major Employers or Town Centres, OR public transport to any of an Enterprise Areas/Zones, with a journey time between 20 and 30 minutes but not both.	employment areas which takes 30 – 40 minutes
Maintain and improve environmental quality and assets	<p>5a. Designated Assets: Minimise impact on and where appropriate enhance the historic environment, national heritage assets and their settings</p> <p>Designated Assets</p> <p><i>Listed Buildings, Grade 1, Grade 11*, Grade II</i></p> <p><i>Conservation Areas</i></p> <p><i>Scheduled Ancient Monuments</i></p> <p><i>Registered Historic Parks and Gardens</i></p> <p><i>Registered Battlefields</i></p> <p><u><i>Non-designated archaeology which is demonstrably of equivalent significance to scheduled monuments</i></u></p>	<p>Designated Assets</p> <p>Significant positive</p> <p>Development that has been assessed as presenting opportunities for the enhancement of any affected heritage asset, historic townscape or landscape</p> <p>Minor positive</p> <p>Development that has been assessed as presenting opportunities for safeguarding and protection the significance of any affected heritage asset, historic townscape or landscape</p>	<p>Designated Assets</p> <p>Significant negative</p> <p>Development that has been assessed as having the potential to lead to loss of significance or substantial harm to any affected heritage asset, historic townscape or landscape</p> <p>Development in a location that has been assessed as having the potential to lead to loss of character and substantial harm to setting of an asset</p> <p>Minor negative</p> <p>Development that has been assessed as having the potential to lead to harm or change of significance to a heritage asset</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
			<p>Development in a location that has been assessed as having the potential to lead to harm of character and setting of an asset</p> <p>Significant negative</p> <p><u>Development that has been assessed as likely to result in considerable harm to the significance of a designated heritage asset, historic townscape or landscape including their character and setting.</u></p> <p>Minor negative effect</p> <p><u>Development that has been assessed as likely to result in minor or limited harm to the significance of a designated heritage asset, historic townscape or landscape including their character and setting.</u></p>
		<p>Negligible</p> <p>Development that has been assessed as having no potential to have adverse impacts relating to designated heritage assets.</p>	
		Significant positive	Significant negative

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p>5b. Undesignated Assets: Minimise impact on and where appropriate enhance the historic environment, local heritage assets and their settings</p> <p>Local Assets:</p> <p><i>Unregistered Historic Parks and Gardens</i></p> <p><i>Non-designated heritage assets</i></p> <p><i>Locally Listed Buildings</i></p>	<p>Minor positive</p> <p>Development that has been assessed as presenting opportunities for the enhancement of the significance of any affected local heritage asset, historic townscape or landscape</p> <p>Development which has been assessed as presenting opportunities to bring into use an existing built local heritage asset</p> <p>Development that has been assessed as presenting opportunities to safeguard and protect the significance of any affected local heritage asset, historic townscape or landscape</p> <p>Developments that has been assessed as presenting opportunities to take account of local unregistered, non-designated or locally listed assets of importance to the local community</p>	<p>Minor negative Development that has been assessed as having the potential to lead to loss of significance of any affected local heritage asset, historic townscape or landscape</p> <p>Development in a location that has been assessed as having the potential to lead to loss of character and setting of a local asset</p> <p>Development that has been assessed as having the potential to lead to harm or change of significance to a local asset</p> <p>Development in a location that has been assessed as having the potential to lead to harm of character and setting of a local asset</p>
	<p>5c. Minimise impact on and where possible enhance habitats and species Taking into account the effects of climate change, protect and enhance biodiversity and the nature network,</p>	<p>Negligible</p> <p>Development that has been assessed as having no potential to having adverse impacts relating to undesignated heritage assets.</p>	<p>Significant negative</p> <p>Development that is within 250m of one or more</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<p><u>including protected sites and species, to achieve a measurable net gain and greater natural resilience</u></p> <p>International and European designated sites</p> <p><i>Special Areas of Conversation (SAC)</i></p> <p><i>Special Protection Areas (SPA)</i></p> <p><i>RAMSAR</i></p> <p>Note: <i>The HRA will consider these in more detail. SA will recognise where a European Protected Sites might be affected and therefore an Appropriate Assessment as part of the HRA may be required.</i></p> <p>National Sites and assets</p> <p><i>SSSI</i></p> <p><i>National Nature Reserves</i></p> <p><i>Local Nature Reserves</i></p> <p><i>UK Priority Habitat</i></p> <p>Local Sites</p> <p><i>SNCI</i></p> <p><i>Ecological Networks</i></p>		<p>internationally or nationally designated biodiversity or geodiversity sites</p> <p>Minor negative</p> <p>Development that is between 250m and 1km of one or more internationally or nationally designated biodiversity or geodiversity sites, that is within 250m of a locally designated site (including priority habitat identified by South Gloucestershire Council) or is within 15m of an area of ancient woodland</p>
		<p>Negligible</p> <p>Development that is outside of the distances specified above from any internationally, nationally, locally designated biodiversity or geodiversity sites and ancient woodland</p>	
	<p>5d. Minimise impact on and where appropriate enhance valued landscapes (including the Cotswolds AONB and its setting)</p> <p>National designations</p> <p><i>AONB</i></p> <p><i>Ancient Woodland</i></p> <p>Note: <i>The South Gloucestershire Adopted Landscape Character Assessment SPD (Revised 2014) will be used to assess the plan</i></p>	<p>TBC</p>	<p>Significant Negative</p> <p>Development on land which is mostly assessed as having high landscape sensitivity</p> <p>Uncertain Significant Negative</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	<i>utilising the 21 identified Character Areas and the Landscape Strategy developed for each character area.</i>		<p>Development on land which is mostly assessed as having medium to high landscape sensitivity</p> <p>Minor Negative</p> <p>Development on land which is mostly assessed as having medium landscape sensitivity</p>
	<p>5e. Deliver a range and quality of, and increased access to new green infrastructure across South Gloucestershire AND protect and enhance existing GI</p> <p>Green Infrastructure typology:</p> <p>Parks and Gardens</p> <p>Amenity Greenspace – including: informal recreation spaces, domestic gardens, village greens, green roofs</p> <p>Natural and semi-natural urban greenspaces – including: woodland and scrub, grassland, heath or moor, wetlands, open and running water</p> <p>Green corridors – rivers and canals including their banks, road and rail corridors, cycling routes, pedestrian paths, and rights of way</p> <p>Other - allotments, community gardens, city farms, cemeteries and churchyards.</p>	<p>Uncertain for all sites</p> <p>At present limited up to date information is available in relation to GI corridors and key assets in South Gloucestershire. Therefore, an 'uncertain' effect is recorded for all sites in relation to this SA objective.</p>	
	5f. Promote the conservation and wise use of land, maximising the re-use of previously developed land	<p>Significant positive</p> <p>Major Development (sites that would provide 10 or more homes or sites of 1.0ha or more for non-residential uses) which would proceed on land</p>	<p>Significant negative</p> <p>Major development (sites that would provide 10 or more homes or sites of 1.0ha or more for non-residential uses) which would proceed on land</p>

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
		<p>which is mostly previously developed land/brownfield</p> <p>Minor positive</p> <p>Minor development (sites that would provide fewer than 10 homes or sites smaller than 1.0ha for non-residential uses) which would proceed on land which is mostly previously developed land/brownfield</p>	<p>which is mostly previously undeveloped greenfield</p> <p>Minor negative</p> <p>Minor development (sites that would provide fewer than 10 homes or sites smaller than 1.0ha for non-residential uses) which would proceed on land which is mostly previously undeveloped greenfield</p>
	<p>5g. Minimise the loss of productive land, especially best and most versatile agricultural land</p>		<p>Significant Negative</p> <p>Development on land resulting in loss of agricultural value Grade 1 to 2</p> <p>Uncertain Significant Negative</p> <p>Development on land that results in loss of Grade 3 agricultural value or of local food growing land of demonstrable value</p>
		<p>Negligible effect</p> <p>Development on greenfield which has been identified as containing Grade 4 or Grade 5 soils or on brownfield land</p>	

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
	5h. Minimise vulnerability to tidal/fluviat flooding (taking account of climate change), without increasing flood risk elsewhere		Significant Negative Development mostly on land that is within flood zones 3a or 3b.
		Negligible effect Development mostly on land that is outside of flood zones 3a or 3b.	
	5i. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere		Significant Negative Development proposed mostly within identified areas at high risk from surface water or ground water flooding.
			Minor negative Development on greenfield land which has potential to increase surface water flood risk.
	Negligible effect Development on brownfield land outside areas at risk from surface water or ground water flooding.		
	5j. Minimise harm to, and where possible protect and enhance (surface and groundwater) water quality and quantity/availability		Minor Negative Development within a Source Protection Zone.

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
		Negligible effect Development outside of a Source Protection Zone.	
Use of natural resources	6a. Reduce waste	Uncertain Minor Positive Location of development on or mostly on brownfield land may provide opportunities to reuse and recycle buildings and materials onsite as well as demolition waste	
		Negligible effect Location of development on or mostly on greenfield land is unlikely to provide opportunities to reuse and recycle buildings and materials onsite as well as demolition waste	
	6b. Minimise consumption and extraction of minerals		Minor negative Development located within or mostly within a Minerals Safeguarding Area
		Negligible effect Development located outside or mostly outside of a Minerals Safeguarding Area	
Protect and enhance valuable Green belt	7a. Protect and enhance valuable Green Belt	Positive Effects - TBC Significant negative Development on land within the Green Belt making contribution to Green Belt purpose(s), leading to urban sprawl, physical	

Theme	Sustainability Objective	Effects Criteria	
		Positive Effect	Negative Effect
		merger between towns or settlements or loss of open countryside	