



South Gloucestershire Local Plan 2023 Phase 3: Towards a Preferred Strategy

Sustainability Appraisal Report

South Gloucestershire Council

Final report

Prepared by LUC

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Chapter 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 new South Gloucestershire Local Plan.

1.2 This report relates to, and should be read in conjunction with, the South Gloucestershire Local Plan Phase 3 consultation document 'Towards a Preferred Strategy' (December 2023). LUC previously prepared integrated SA/SEA Reports for the Phase 1: Issues and Approaches consultation document in November 2020 [See reference 1] and the Phase 2: Urban, Rural and Key Issues consultation document in February 2022 [See reference 2]. This report builds on that earlier work.

Geographical Context for the South Gloucestershire Local Plan

1.3 South Gloucestershire is located adjacent to the Severn Estuary and to the north east of Bristol City. Bristol is accessible from the South Gloucestershire via the M5, M32 and A38 as well as by rail and bus. South Gloucestershire 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, South Gloucestershire is bordered by Stroud and Cotswold Districts, while Wiltshire and Bath and North East Somerset lie to the east and south east respectively. Residents in the north and east of South Gloucestershire have functional links with places in Wiltshire and Bath and North East Somerset as well as Gloucestershire and South Wales.

1.4 South Gloucestershire covers a total area of 49,694.56ha, with a population of 290,424, giving a population density of 584 people per square kilometre [See reference 3]. Almost two thirds (62.3%) of the South Gloucestershire's population is of working age; of this 84.9% are economically active, which is above the national and regional averages (78.4% and 80.7% respectively) [See reference 4]. The largest group (29.4%) of people are in professional occupations, and just over half (54.9%) of the population are within Major Employment Groups 1-3 (Managers, Directors and Senior Officials; Professional Occupations; and Associate Professional and Technical) [See reference 5].

1.5 The eastern side of South Gloucestershire lies within the Cotswolds National Landscape, an 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). South Gloucestershire also contains numerous non-statutory designations which contribute to local biodiversity, including 294 Sites of Nature Conservation Importance (SNCIs).

1.6 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 features. There are 30 Conservation Areas in South Gloucestershire, designated for their special architectural or historic interest. South Gloucestershire also contains 38 Scheduled Monuments, eight Registered Historic Parks and Gardens, one Registered Battlefield (part) and 2,089 Listed Buildings (2% are Grade I, 6% are Grade II* and 92% are Grade II).

1.7 Oldbury Nuclear Power Station is located adjacent to the Severn Estuary in the north west of South Gloucestershire. The station ceased generation in 2012 and is currently being decommissioned. An ongoing programme of

decommissioning will continue through and beyond the Local Plan period. Transport infrastructure through South Gloucestershire 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 South Gloucestershire and allow for rail and motorway access (via the M4 and M48 respectively) into Wales. South Gloucestershire 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

1.8 The South Gloucestershire Local Plan is a development plan document (DPD) that will relate to the whole administrative area of South Gloucestershire and cover the period from 2025 to 2040. The plan will eventually replace most of the adopted planning policies in the Core Strategy 2006-2027 (adopted in 2013) and the Policies, Sites and Places Plan (adopted in 2017) and, where appropriate, policies from the Joint Waste Core Strategy (adopted in 2011). However, a number of policies from those plans will be 'saved'.

1.9 South Gloucestershire Council has decided to review the Local Plan given the time that has elapsed since the Core Strategy and its spatial principles were examined. This decision also reflects the 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).

1.10 Once adopted, the Local Plan will set out a new growth strategy for South Gloucestershire, describe where and how many new homes, jobs and infrastructure are to be provided as well as identifying areas for protection over the plan period. As part of this, the Local Plan will need to identify sites and locations where the housing and employment growth and supporting infrastructure required in the area should be located. It will also need to reflect

the environmental sensitivities of the plan area and include an appropriate response to the declared climate emergency for South Gloucestershire.

1.11 The Local Plan 2020 [See reference 6] Phase 1 consultation document was published between November 2020 and March 2021 and was the Council's first stage of presenting the issues and priorities for South Gloucestershire. It set out a number of potential approaches that the Local Plan could take to addressing these issues and contained a number of strategic policy and spatial 'options' that were appraised in the accompanying SA Report, prepared by LUC.

1.12 In the Phase 2 consultation document, which was published between February and April 2022, the Council sought to begin a more detailed discussion on where growth, change and protection might take place. Those elements of the document that were appropriate for appraisal were subject to SA by LUC and the findings were presented in the SA Report which was published alongside the Phase 2 document during the consultation period.

1.13 In the current Phase 3 document, the Council is consulting on the Local Plan objectives, the scale and type of development to be planned for, potential allocations, the emerging preferred strategy (and the alternative 'lenses' considered) as well as infrastructure requirements. The Phase 3 document also includes proposed policy wording in relation to topics including climate change, affordable homes, the economy and town centres.

Sustainability Appraisal and Strategic Environmental Assessment

1.14 Under the amended Planning and Compulsory Purchase Act 2004 [See reference 7], 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) Regulations (as amended) [See reference 8]. The SEA Regulations

remain in force post-Brexit and it is a legal requirement for the South Gloucestershire Local Plan to be subject to SA and SEA throughout its preparation.

1.15 The Levelling Up and Regeneration Act (2023) received royal assent in October 2023 and sets out the direction for planning, making provisions to support the levelling-up agenda. As part of this, it seeks to streamline the planning process, including through a reform of existing EU-generated systems of SA/SEA, Habitats Regulations Assessment (HRA) and Environmental Impact Assessment (EIA), which will eventually be replaced by a simpler process known as 'Environmental Outcomes Reports'. However, secondary legislation is required to introduce the new regime and at present the requirement to undertake SEA remains in force.

1.16 SA and SEA are tools used at the plan-making stage to assess the likely effects of the plan when judged against reasonable alternatives. SEA considers only the environmental effects of a plan, while SA considers the plan's wider economic and social effects in addition to its potential environmental impacts. SA should meet all of the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004, so a separate SEA should not be required. An approach which satisfies the requirements for both SA and SEA is advocated in the Government's Planning Practice Guidance (PPG). Practitioners can comply with the requirements of the SEA Regulations through a single integrated SA process – this is the process that is being undertaken in South Gloucestershire. 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 below signposts the relevant sections of this SA Report that are considered to meet the SEA Regulations requirements. This table will be included in the SA Reports prepared at each stage of the SA to show how the requirements of the SEA Regulations have been met through the SA process.

Environmental Report

1.19 The following SEA Regulations requirement is addressed throughout this SA Report:

- Where an environmental assessment is required by any provision of Part 2 of these Regulations, the responsible Authority shall prepare, or secure the preparation of, an environmental report in accordance with paragraphs (2) and (3) of this regulation. The report shall identify, describe and evaluate 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 (Regulation 12(1) and (2) and Schedule 2).

1.20 The following SEA Regulations requirement is covered in Chapter 1, Chapter 3 and Appendix B of this SA Report:

- An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.

1.21 The following SEA Regulations requirements are covered in Chapter 3 and Appendix C of this SA Report:

- The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.
- The environmental characteristics of areas likely to be significantly affected.
- 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 on the conservation of wild birds and the Habitats Directive.

1.22 The following SEA Regulations requirement is covered in Chapter 3 and Appendix B of this SA Report:

- 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.

1.23 The following SEA Regulations requirements are covered in Chapter 4, Chapter 5 and Chapter 6 of this SA Report:

- The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive effects, and secondary, cumulative and synergistic effects, 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 issues referred to in sub-paragraphs (a) to (l).
- 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.

1.24 The following SEA Regulations requirement is covered in Chapter 2 of this SA Report:

- 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.

1.25 The following SEA Regulations requirement is covered in Chapter 7 of this SA Report:

- A description of the measures envisaged concerning monitoring in accordance with regulation 17.

1.26 The following SEA Regulations requirement is covered by a separate non-technical summary document that has been prepared to accompany this Environment Report:

- A non-technical summary of the information provided under paragraphs 1 to 9.

1.27 The following SEA Regulations requirement is addressed throughout this SA Report:

- The report shall include such of the information referred to in Schedule 2 to these Regulations as may reasonably be required, taking account of:
 - Current knowledge and methods of assessment;
 - The contents and level of detail in the plan or programme;
 - The stage of the plan or programme in the decision-making process; and
 - The extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment (Regulation 12 (3)).

Consultation

1.28 The following SEA Regulations requirement is covered by the focussed consultation on the scope and level of detail of the SA carried out with the Environment Agency, Historic England and Natural England for five weeks between 8 October and 12 November 2020:

- When deciding on the scope and level of detail of the information that must be included in the environmental report, the responsible Authority shall consult the consultation bodies (Regulation 12(5)).

1.29 The following SEA Regulations requirement is covered by the consultation on the Local Plan Phase 3 document, which is taking place between December 2023 and February 2024 and the consultation document is accompanied by this SA Report, the consultation on the Local Plan 2020 Phase 2 document, which took place between February and April 2022 and the consultation documents were accompanied by the Debruary 2022 SA Report prepared by LUC on behalf of the Council, and the consultation on the Local Plan 2020 Phase 1 document, which took place between November 2020 and March 2021 and the

consultation documents were accompanied by the November 2020 SA Report prepared by LUC on behalf of the Council:

- Every draft plan or programme for which an environmental report has been prepared in accordance with regulation 12 and its accompanying report (“the relevant documents”) shall be made available for the purposes of consultation in accordance with the following provisions of this regulation.
- As soon as reasonably practical after the preparation of the relevant documents, the responsible Authority shall:
 - Send a copy of those documents to each consultation body;
 - Take such steps as it considers appropriate to bring the preparation of the relevant documents to the attention of the persons who, in the Authority’s opinion, are affected or likely to be affected by, or have an interest in the decisions involved in the assessment and adoption of the plan or programme concerned, required under the Environmental assessment of Plans and Programmes Directive (“the public consultees”); and
 - Inform the public consultees of:
 - (i) The address of the website at which the relevant documents may be viewed and downloaded free of charge;
 - (ii) The fact that a copy of the relevant documents may be obtained by email from the responsible authority;
 - (iii) The fact that a copy of the relevant documents may be obtained by post from the responsible authority, provided that it is reasonably practicable for the authority to provide a copy by post;
 - (iv) The address, email address and telephone number for the purpose of requesting a copy of the relevant documents either by email or by post;
 - (v) Whether a charge will be made for copies of the relevant documents provided by post and the amount of any charge; and

- (vi) The telephone number which can be used to contact the responsible authority for enquiries in relation to the relevant documents.
- The period referred to in paragraph (2) (d) must be of such length as will ensure that the consultation bodies and the public consultees are given an effective opportunity to express their opinion on the relevant documents (Regulation 13 (1), (2), and (3)).

1.30 The following SEA Regulations requirement is not applicable:

- Where a responsible Authority, other than the Secretary of State, is of the opinion that a plan or programme for which it is the responsible Authority is likely to have significant effects on the environment of a Member State, it shall, as soon as reasonably practicable after forming that opinion:
 - Notify the Secretary of State of its opinion and of the reasons for it; and
 - Supply the Secretary of State with a copy of the plan or programme concerned, and of the accompanying environmental report (Regulation 14 (1)).

Taking the environmental report and the results of the consultations into account in decision-making (relevant extracts of Regulation 16)

1.31 The following SEA Regulations requirement will be met after adoption of the Local Plan:

- As soon as reasonably practicable after the adoption of a plan or programme for which an environmental assessment has been carried out under these Regulations, the responsible Authority shall:
 - Publish the plan or programme, as adopted, its accompanying environmental report and a statement containing the particulars specified in paragraph (4) (“the relevant adoption documents”) on a

- public website at which the documents may be viewed and downloaded free of charge;
- Provide a copy of the relevant adoption documents by email to any person who requests a copy, as soon as reasonably practicable after receipt of that person's request;
 - Provide one copy of the relevant adoption documents by post to any person who requests a copy, as soon as reasonably practicable after receipt of that person's request, unless it is not reasonably practicable to provide a copy by post for reasons connected to the effects of coronavirus, including restrictions on movement; and
 - Make available a telephone number for the public to make enquiries in relation to the relevant adoption documents (Regulation 16(1)).
- As soon as reasonably practicable after the adoption of a plan or programme:
- The responsible Authority shall inform (i) the consultation bodies; (ii) the persons who, in relation to the plan or programme, were public consultees for the purposes of regulation 13; and (iii) where the responsible Authority is not the Secretary of state, the Secretary of State, that the plan or programme has been adopted, and a statement containing the following particulars:
 - How environmental considerations have been integrated into the plan or programme;
 - How the environmental report has been taken into account;
 - How opinions expressed in response to: (i) the invitation in regulation 13(2)(d); (ii) action taken by the responsible Authority in accordance with regulation 13(4), have been taken into account;
 - How the results of any consultations entered into under regulation 14(4) have been taken into account;
 - The reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and

- The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.

Monitoring

1.32 The following SEA Regulations requirement will be met after adoption of the Local Plan and Chapter 7 proposes monitoring indicators:

- The responsible Authority shall monitor the significant 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 (Regulation 17(1)).

Structure of this Report

1.33 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 South Gloucestershire and identifies the key sustainability issues.
- Chapter 4: SA Findings for the Site Options summarises the SA findings for the development site options that are being considered for allocation.

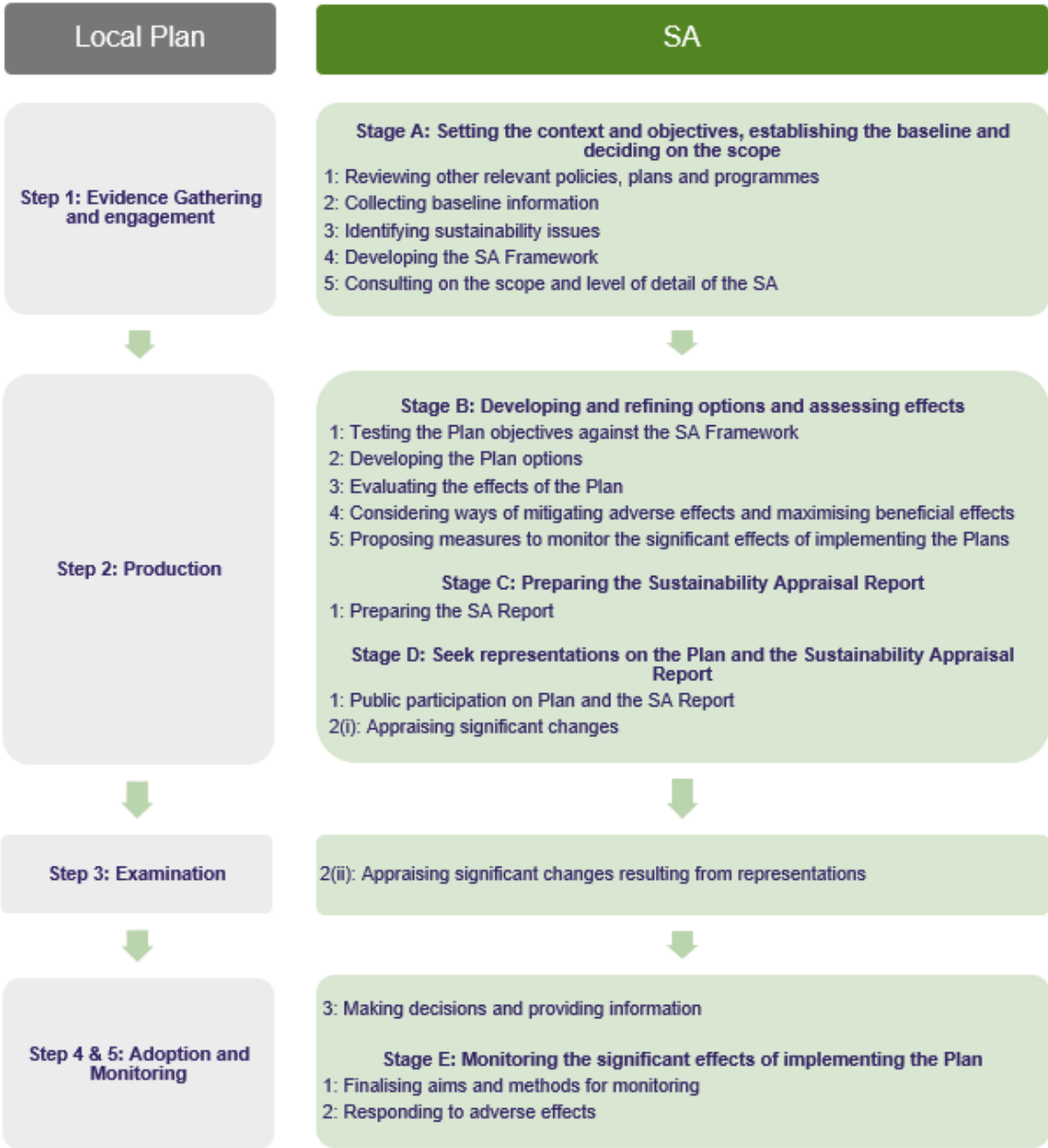
- Chapter 5: SA Findings for the Growth Lenses summarises the SA findings for the alternative growth lenses which have been identified by the Council.
- Chapter 6: SA Findings for the Phase 3 Local Plan presents the appraisal of the Emerging Preferred Strategy and the draft policies in the current consultation document. The cumulative effects of the emerging Local Plan are also explored in this chapter.
- Chapter 7: Monitoring describes the approach that should be taken to monitoring the likely significant effects of the new Local Plan and proposes monitoring indicators.
- Chapter 8: Conclusions summarises the key findings from the SA of the Local Plan Phase 3 document and describes the next steps to be undertaken.
- Appendix A – Presents the consultation comments that were received in relation to the Scoping Report, the Phase 1 SA Report and the Phase 2 SA Report and explains how each one has been addressed.
- Appendix B – Presents the review of relevant plans, policies and programmes.
- Appendix C – Presents the baseline information for South Gloucestershire.
- Appendix D – Presents the effects criteria that have informed the site appraisal work.

Chapter 2

Methodology

2.1 In addition to complying with legal requirements, the approach being taken for the SA of the South Gloucestershire Local Plan 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. Figure 2.1 below sets out the main stages of the plan-making process and shows how these correspond to the SA process.

Figure 2.1: Corresponding stages in plan-making and SA



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

Stage A: Scoping

2.3 The SA process began in October 2020 with the production by the Council of a Scoping Report for the new Local Plan.

2.4 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, drawing from the analysis of the baseline information collected. The likely evolution of these issues without the Local Plan was also presented.
- A Sustainability Appraisal framework was prepared, setting out the SA objectives against which options and subsequently policies would be appraised. The SA framework that had been used for the SA of South

Gloucestershire's current Local Plan provided the starting point for the development of the SA objectives for the Local Plan. 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 Council 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.

2.5 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 2020 for a five-week consultation period with the three statutory consultees (Natural England, the Environment Agency and Historic England).

2.6 Appendix A of this SA Report lists the comments that were received during the Scoping consultation and describes how each one has been addressed – these changes were originally made in the SA Report for the Phase 1 Local Plan (November 2020), which also presented the consultation responses table, and have since been carried through into the Phase 2 SA Report and now this report. In light of the comments received some amendments were made to the review of plans, policies and programmes, the baseline information and the key sustainability issues.

2.7 The most recent versions of the review of plans, policies and programmes and the baseline information are presented in Chapter 3 and Appendices B and C of this SA Report. The review of plans, policies and programmes and the baseline information have been updated during the preparation of this report and 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

2.8 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.

2.9 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.”

2.10 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.”

2.11 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.

2.12 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, wider corporate objectives for the Council and conformity with national policy will also be taken into account by plan-makers when selecting options for their plan.

2.13 The section below describes the specific sections of the Phase 3 consultation document which have been subject to SA and a brief overview of them.

Sections of the South Gloucestershire Local Plan Phase 3 Document that have been Subject to SA

Local Plan Objectives (Section 2)

- Six overarching objectives and 31 sub-objectives have evolved from the objectives previously set out in the Phase 2 consultation.

Growth Lenses and Emerging Preferred Strategy (Sections 5 and 6)

- Drawing on the outcomes of the Phase 2 consultation, the Phase 3 document identifies three alternative growth lenses which then feed into the emerging preferred strategy for South Gloucestershire. Each of the growth lenses and the emerging preferred strategy propose a spatial

approach to development. There are a range of sites that sit under each of the lenses and the emerging preferred strategy which give an idea of where development is likely to be proposed.

Site Options (Sections 5 and 6)

- As noted above, each of the growth lenses and the emerging preferred strategy include a set of development sites. Sections 5 and 6 of the consultation document identify possible sites for new development, where the Council thinks that there is potential for change over the plan period and where this could be guided by an allocation in the Local Plan. These sites are informed by evidence from the Council's Call for Sites and Housing and Employment Land Availability Assessment (HELAA).

Phase 3 Planning Policies (Section 11)

- Fourteen draft policies are set out, covering the following topics:
 - Climate change mitigation and adaptation
 - Energy management in new development
 - Embodied carbon
 - Renewable and low carbon energy
 - Community energy
 - Affordable homes
 - Gypsy and Travellers
 - Travelling Showpeople
 - Internal space and accessibility standards
 - Minerals
 - Economy and jobs
 - Town centres

- Major sites delivery
- Stewardship

2.14 The Phase 3 consultation document builds on the Phase 2 consultation, which in turn built on the Phase 1 document. The Phase 1 document highlighted the issues, challenges and opportunities presented in planning the future of the plan area. It acted as the beginning of the process to consult on whether the correct issues and priorities had been identified for the new Local Plan to address.

2.15 The Phase 2 document summarised some of the outcomes of the Phase 1 consultation and set out further information about how the Council intends to deliver growth within South Gloucestershire over the Plan period. It identified potential site allocations in urban areas as well as draft policies addressing a number of topics. The consultation document also introduced the Council's proposed approach to planning for other topics, with further detail intended at that time to be set out in the next iteration of the Local Plan.

2.16 The Phase 3 document sets out the Local Plan objectives, the scale and type of development to be planned for, potential site allocations, the emerging preferred strategy (and the alternative 'lenses' considered) as well as infrastructure requirements. The Phase 3 document also includes proposed policy wording in relation to topics including climate change, affordable homes, the economy and town centres.

2.17 The Council undertook a Call for Sites exercise between July and October 2020 and the sites submitted through this exercise within the existing urban areas, Thornbury and Yate were assessed in the SA report that accompanied the Phase 2 document. Since the Local Plan Phase 2 consultation took place, a number of potential sites have been excluded for a variety of reasons. The HELAA was used to understand a site's potential capacity and whether it could be delivered. This SA report appraises all of the site options identified in the Phase 3 Plan in Chapter 4 and the policy options are presented in Chapter 6.

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.

2.19 It sets out the findings of the appraisal of the Phase 3 consultation document, 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). Recommendations for improvements and clarifications that may help to maximise the benefits and mitigate negative effects of the Local Plan have been made where appropriate.

SA Stage D: Consultation on the South Gloucestershire Local Plan 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 Phase 3 consultation document and this SA Report. Both documents are being published on the Council's website for consultation between December 2023 and February 2024. 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 are presented in Chapter 7. 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 Local Plan options and policies 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:

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

Symbol and Colour Coding	Description
++	Significant positive effect likely.
++/-	Mixed significant positive and minor negative effect likely.
+	Minor positive effect likely.
+/-	Mixed minor positive and minor negative effect likely.
-	Minor negative effect likely.
--/+	Mixed significant negative and minor positive effect likely.

Symbol and Colour Coding	Description
--	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.

Approach to Appraisal of Site Allocation Options

2.27 SA inevitably relies on an element of subjective judgement. However, in order to ensure consistency in the appraisal of the site options, for each of the SA objectives in the SA framework, a clear set of decision-making criteria and assumptions for determining significance of the effects was developed. These assumptions set out clear parameters within which certain SA effects would be identified, based on factors such as the distance of site options from sensitive environmental receptors (e.g. designated biodiversity sites or areas of high landscape sensitivity) or key services and facilities (e.g. public transport links). The criteria and assumptions, many of which were applied through the analysis of spatial data using a Geographical Information System (GIS), are presented in Table D.1 in Appendix D.

2.28 Due to the large increase in the number of reasonable alternative site options to be subject to SA between Phase 2 and Phase 3, the decision was taken to develop a GIS-based approach to the site appraisals, as it would provide a more consistent and transparent approach than the manual assessment approach used at Phase 2.

2.29 When compiling the site assessment criteria, it was recognised that the Council did not have data showing access to high speed broadband. As such, it was determined that the site options would not be appraised against SA objective 3g as it would not be possible to differentiate between the sites.

2.30 When assessing site options in relation to the historic environment, the Council undertook its own assessment on the potential impact of development on the historic environment. The sites assessed by the Council were each given

a red or green rating in terms of their heritage significance. The heritage considerations related to built heritage and archaeology constraints.

2.31 It should be noted that, with regard to sites proposed for green infrastructure/biodiversity mitigation (SG845) and renewable energy (SG930, SG931 and SG932), the SA has not considered these sites in the same way as sites being considered for other forms of development. This is because distance-based criteria would not be useful in assessing either of these types of sites. Green infrastructure sites could benefit biodiversity and the landscape, build resilience to climate change and reduce the risk of flooding. However, these issues will not be influenced by the spatial location of the site. Similarly, sites being considered for renewable energy may affect the local landscape, heritage assets or biodiversity sites and features, but would help to mitigate climate change and provide local employment opportunities. However, these factors cannot be meaningfully assessed at this stage based on the spatial location of the sites and will instead be strongly influenced by the specific proposals that may come forward for the sites.

Difficulties Encountered and Data Limitations

2.32 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.

2.33 Because many effects of development are dependent on the exact location, layout and design of development, it may be possible to mitigate some of the effects highlighted in this SA. However, given the inherent uncertainties about these details at this strategic stage of planning and assessment, the SA focuses on identifying potential significant effects of the options considered, without making assumptions about detailed design or mitigation measures that might be implemented.

2.34 Appraisal findings relying on intersection with areas of environmental sensitivity such as flood zones were based on the proportion of the site intersecting with the sensitive area. However, when assessing environmental sensitivity such as areas of ecological value, a distance-based approach was utilised. Additionally, in assessing the likely accessibility of site options to key services and facilities, reference is made to various distances in the site assessment assumptions. The most sustainable and easily achievable mode of transport is walking and the distances therefore refer to walking distances to these services and facilities. These were based on the suggested acceptable walking distances presented in relevant guidance [See reference 9]. However, some distance thresholds were refined using professional judgment to reflect the fact that people are likely to be willing to walk longer distances to access higher order services (for example a secondary school rather than a primary school). It cannot be known which walking route future residents of a site will take and this is likely to vary depending on the exact starting point of each individual's journey within a site, especially where sites are large. Therefore, for consistency and to avoid spurious accuracy, these distance thresholds were applied using straight-line measurements from the boundary of a site option to the services and facilities in question.

2.35 There was a need to appraise a large number of site options consistently. In order to address this issue, detailed assumptions relating to each of the SA objectives were developed and applied during the appraisal of site options (as described above and set out in Appendix D).

2.36 Some of the data which is available to set out the baseline situation for South Gloucestershire is based on the reporting of 2011 census. This data allows for trends in national and South Gloucestershire performance to be reported upon, however it is recognised that data is now relatively old considering the timings of the national census. Data from the 2021 Census has been drawn on where available and will continue to be during later stages of the SA.

2.37 The number of strategies, plans, programmes, policy documents, advice and guidance produced by a range of statutory and non-statutory bodies means

Chapter 2 Methodology

that it has not been possible to consider every potentially relevant document in detail (see Chapter 3 and Appendix B). Instead, the key messages relevant to the preparation of the South Gloucestershire Local Plan and the SA have been drawn out.

Chapter 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 South Gloucestershire Local Plan was provided in Chapter 1. The other reporting requirements are met in this chapter.

Relationship with Other Relevant Plans and Policies

3.3 The South Gloucestershire 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 South Gloucestershire [See reference 10] 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 Local 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 B.

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 ended on 31 December 2020. Directly applicable EU law therefore 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. Potential implications for planning and development include the Government’s continued measures to re-start the economy via support for housebuilding and infrastructure development; 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.
- **Levelling Up and Regeneration Act** – The Act sets out various planning reforms including the replacement of the SA/SEA regime with ‘Environmental Outcomes Reports’; replacement of the CIL process and much of the section 106 payments system with a new national infrastructure levy; a shared framework of National Development

Management Policies, removing much of this detail from Local Plans; replacement of supplementary planning documents (SPD) with Supplementary Plans that carry more weight and but would be subject to examination; repeal of the Duty to Cooperate; a duty on public bodies and infrastructure providers to assist the local plan-making process; a speeded up plan-making process (plans to be prepared and adopted within 30 months); a strengthened role for the strengthen the role of the 'national model design code'; replacement of Neighbourhood Plans with Neighbourhood Priorities Statements; removal of the current NPPF requirement to demonstrate a rolling five-year supply of housing land, provided that the local plan is up to date; removal of the 'soundness test' for local plans to be 'justified'.

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.

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 B.

The National Planning Policy Framework and Planning Practice Guidance

3.9 The National Planning Policy Framework (NPPF) [See reference 11] is the overarching planning framework which provides national planning policy and principles for the planning system in England. The NPPF was originally published in March 2012 and has been updated several times since, with the most recent revisions published in September 2023. The most recent amendments to the NPPF mainly comes under 'Meeting the challenge of climate change, flooding and coastal change'. This update to the NPPF should assist decision makers dealing with proposals to use and improve existing renewable energy sites giving weight to the advantages of doing so.

3.10 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.”

3.11 The PPG [See reference 12] provides guidance for how the Government's planning policies for England are expected to be applied. Sitting alongside the NPPF, it provides an online resource that is updated on a regular basis for the benefit of planning practitioners.

3.12 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.

3.13 Climate change adaptation 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 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.

3.14 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.

3.15 The SA can consider the contribution the alternatives make in terms of contribution to climate change mitigation as well as climate change adaptation.

3.16 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.

3.17 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”. Additionally, larger scale developments such as new settlements or significant extensions to existing villages and towns are required by the NPPF to be guided by policies set within a vision that looks at least 30 years ahead [See reference 13]. The need for policies to be reflective of this longer time period is to take account of the likely timescale for delivery.

3.18 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 reducing inequalities and support the development of policy approaches that cumulatively improve the wellbeing of local communities.

3.19 The NPPF sets out the approach Local Plans should have 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 measurable net gains for biodiversity. A strategic approach to

maintaining and enhancing networks of habitats and green infrastructure is to be supported through planning policies.

3.20 The Local Plan, through its review of the spatial strategy, 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.

3.21 In relation to landscape, the NPPF 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 at National Parks, The Broads and Areas of Outstanding Natural Beauty.

3.22 The Local Plan should be supportive of an approach to development which would protect the landscape character of South Gloucestershire. Where appropriate it should also seek to protect the individual identities of South Gloucestershire's settlements, with regard for the potential coalescence. The SA should identify those alternatives which contribute positively to landscape character.

3.23 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. The Framework places a focus on making 'beautiful' and 'sustainable' places. The use of plans, design policy, guidance and codes is encouraged. The SA provides an

opportunity to test alternatives in terms of the contribution they can make to the protection and enhancement of the historic environment.

3.24 The Local Plan can take forward a spatial strategy which helps to limit adverse impacts on designated and non-designated heritage assets, 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.

3.25 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 infrastructure provision for water supply and wastewater.

3.26 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.

3.27 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.

3.28 Plans can seek to ensure the appropriate protection of soil quality, including best and most versatile agricultural land. Further to this, plans should ensure that new development does not conflict with current mineral operations

as well as long-term mineral resource plans. 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.

3.29 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. Furthermore, planning policies should address the specific locational requirements of different sectors.

3.30 3.30 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”.

3.31 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, through the review of the spatial strategy. Ensuring that local town centres and services and facilities at settlements in the plan area are maintained and enhanced is also important and will also provide support for local communities. 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. 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.

3.32 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.

3.33 Growth will inevitably increase traffic on the roads which also has implications for air quality, and the Local Plan and SA process can seek to minimise effects of this nature through an appropriate spatial strategy, 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

3.34 Numerous other policies, plans and programmes at the national level are of relevance to preparation of the Local Plan and the SA. Unlike the NPPF, most of the documents focus 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 to be of most relevance for the SA have been grouped by the topics they most directly seek to address, and green boxes 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

3.35 The relevant international and national PPPs under this topic are:

Chapter 3 Sustainability Context for Development in South Gloucestershire

- Department for Energy Security and Net Zero, The Carbon Budget Delivery Plan (2023).
- Department for Energy Security and Net Zero, Powering up Britain (2023).
- Department for Energy Security and Net Zero, The Energy Security Plan (2023).
- Department for Energy Security and Net Zero, The Net Zero Growth Plan (2023).
- Ministry of Housing, Communities and Local Government, The British Energy Security Strategy (2022).
- HM Government, The Environment Act (2021).
- Department for Business, Energy and Industrial Strategy, The Net Zero Strategy: Build Back Greener (2021).
- Department for Business, Energy and Industrial Strategy, The UK Hydrogen Strategy (2021).
- Department for Business, Energy and Industrial Strategy, The Industrial Decarbonisation Strategy (2021).
- Department for Business, Energy and Industrial Strategy, The Heat and Buildings Strategy (2021).
- HM Government, The Energy Performance of Buildings Regulations (2021).
- Department for Transport, Decarbonising Transport: Setting the Challenge (2020).
- Department for Business, Energy and Industrial Strategy, The Energy White Paper: Powering our Net Zero Future (2020).
- HM Government, Flood and Coastal Erosion Risk Management: Policy Statement (2020).
- HM Government, The 25 Year Environment Plan (2018).

- Defra, The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate (2018).
- HM Government, UK Climate Change Risk Assessment 2017 (2017).
- HM Government, The Clean Growth Strategy (2017).
- United Nations Paris Climate Change Agreement (2015).
- The 2030 Agenda for Sustainable Development (2015).
- Ministry of Housing, Communities and Local Government, National Planning Policy for Waste (NPPW) (2014).
- Defra, Waste Management Plan for England (2013).
- Department of Energy and Climate Change, The Energy Efficiency Strategy (2012).
- Defra and the Environment Agency, Understanding the risks, empowering communities, building resilience: The National Flood and Coastal Erosion Risk Management Strategy for England (2011).
- HM Government, The UK Low Carbon Transition Plan: National Strategy for Climate and Energy (2009).
- HM Government, The UK Renewable Energy Strategy (2009).
- HM Government, The Climate Change Act (2008).
- HM Government, Planning and Energy Act (2008).

Implications for the Local Plan and SA

The Local Plan should consider setting out policies to achieve climate change mitigation and adaptation while also encouraging development which would help to minimise carbon emissions. This can be done through siting development in areas where sustainable transport patterns can be best achieved and encouraging development to make use of more

sustainable sources of energy. The Local Plan should also contain policies to encourage appropriate use of Sustainable Drainage Systems (SuDS) and to ensure that surface water is discharged as high up the drainage hierarchy as possible. Policies should also be included to promote the handling of waste in line with the waste hierarchy.

The SA can test policy options in relation to the contributions they make towards these aims. It should also appraise the contribution individual sites 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

3.36 The relevant international and national PPPs under this topic are:

- HM Government, Levelling-up and Regeneration Act 2023.
- Department for Levelling Up, Housing and Communities, A fairer private rented sector White Paper (2022).
- Department for Levelling Up, Housing and Communities, The Levelling Up the United Kingdom White Paper (2022).
- Department of Health and Social Care, Build Back Better: Our Plan for Health and Social Care (2021).
- Department for Health and Social Care and Cabinet Office, COVID-19 Mental Health and Wellbeing Recovery Action Plan (2021).
- Public Health England, Using the planning system to promote healthy weight environments (addendum) (2021).

- Ministry of Housing, Community and Local Government, The Charter for Social Housing Residents: Social Housing White Paper (2020).
- Public Health England, PHE Strategy 2020-25.
- The 2030 Agenda for Sustainable Development (2015).
- Ministry of Housing, Communities and Local Government, Planning Policy for Traveller Sites (2015).
- HM Government, Laying the foundations: housing strategy for England (2011).
- The United Nations Declaration on Sustainable Development (Johannesburg Declaration) (2002).
- United Nations Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention') (1998).

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 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 included 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 disparity 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.

Policy options considered for the Local Plan can be tested through the SA in relation to the contributions they make towards these aims. The SA should also appraise the contribution the development strategy can make to health and wellbeing. This should be considered in relation to the 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. The capacity of existing facilities may also need to be considered. Consideration should also be given to the strategy's ability to deliver the required number of new homes, including affordable homes.

Environment (biodiversity/geodiversity, landscape and soils)

3.37 The relevant international and national PPPs under this topic are:

- HM Government, The Environment Act 2021.
- HM Government, The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019).
- HM Government, The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).
- Defra, A Green Future: Our 25 Year Plan to Improve the Environment (2018).
- The 2030 Agenda for Sustainable Development (2015).
- United Nations Declaration on Forests (New York Declaration) (2014).
- Defra, Biodiversity offsetting in England Green Paper (2013).
- Defra, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011).
- HM Government, The Countryside and Rights of Way Act 2010.
- Defra, Safeguarding our Soils – A Strategy for England (2009).

- England Biodiversity Strategy Climate Change Adaptation Principles (2008).
- HM Government, The Natural Environment and Rural Communities Act 2006.
- European Landscape Convention (2002).
- The European Landscape Convention (2000).
- International Convention on Wetlands (Ramsar Convention) (1976).
- International Convention on Biological Diversity (1992).
- European Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) (1979).
- European Convention on the Conservation of European Wildlife and Natural Habitats (1979).
- International Convention on Wetlands (Ramsar Convention) (1976).
- National Parks and Access to the Countryside Act 1949.

3.38 The Environment Act 2021 also comprises part of the environmental policy context for the preparation of the Local Plan and undertaking of the SA. The Act seeks to improve air and water quality, tackle waste, increase recycling, halt the decline of species, and improve our natural environment. The Act introduces a mandatory requirement for 10% biodiversity net gain to be achieved at most developments.

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.

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 valuable 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

3.39 The relevant international and national PPPs under this topic are:

- HM Government, The Environment Act 2021.
- The Heritage Alliance, Heritage 2020.
- Historic England, Corporate Plan 2018-2021.
- Department for Digital, Culture Media and Sport, The Heritage Statement (2017).
- Historic England, Sustainability Appraisal and Strategy Environmental Assessment: Historic England Advice Note 8 (2016).

- HM Government, The Government's Statement on the Historic Environment for England (2010).
- Valletta Treaty, formerly the European Convention on the Protection of Archaeological Heritage (1992).
- HM Government, Planning (Listed Buildings & Conservation Areas) Act 1990.
- European Convention for the Protection of the Architectural Heritage of Europe (1985).
- HM Government, Ancient Monuments & Archaeological Areas Act 1979.
- The United Nations (UNESCO) World Heritage Convention (1972).
- HM Government, Historic Buildings and Ancient Monuments Act 1953.

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.

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

3.40 The relevant international and national PPPs under this topic are:

- Defra, Establishing the Best Available Techniques for the UK (UK BAT) (2022).
- HM Government, The Environment Act 2021.
- Defra, Clean Air Strategy 2019.
- HM Government, The Road to Zero (2018).
- HM Government, 25 Year Environment Plan (2018).
- HM Government, The Water Environment Regulations (2017).
- HM Government, The UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (2017).
- Environment Agency, Managing Water Abstraction (2016).
- HM Government, The Water Supply (Water Quality) Regulations (2016).
- HM Government, The Environmental Permitting Regulations (2016).
- HM Government, The Air Quality Standards Regulations (2016).
- The 2030 Agenda for Sustainable Development (2015).
- HM Government, National Policy Statement for Waste Water (2012).
- Defra, Water White Paper (2012).
- HM Government, Future Water: The Government's Water Strategy for England (2008).
- Defra, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007).
- HM Government, Environmental Protection Act 1990.

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.

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

3.41 The relevant international and national PPPs under this topic are:

- HM Government, Levelling-up and Regeneration Act 2023.
- Department for Levelling Up, Housing and Communities, The Levelling Up the United Kingdom White Paper (2022).
- HM Treasury, Build Back Better: Our Plan for Growth (2021).
- Defra, Agricultural Transition Plan 2021 to 2024.
- UK Parliament, Agriculture Act 2020.

- HM Government, Industrial Strategy: building a Britain fit for the future (2018).
- LEP Network, LEP Network response to the Industrial Strategy Green Paper Consultation (2017).
- Infrastructure and Projects Authority, National Infrastructure Delivery Plan 2016-2021.
- The 2030 Agenda for Sustainable Development (2015).

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.

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 South Gloucestershire as well as the access residents would have to the employment opportunities delivered.

Transport and Accessibility

3.42 The relevant international and national PPPs under this topic are:

- Department for Levelling Up, Housing and Communities, The Levelling Up the United Kingdom White Paper (2022).
- Secretary for Transport, The Cycling and Walking Investment Strategy Report to Parliament (2022).
- HM Government, The Environment Act 2021.
- Department for Transport, Decarbonising Transport: A Better, Greener Britain (2021).
- Department for Transport, Decarbonising Transport: Setting the Challenge (2020).
- Department for Transport, Transport Investment Strategy (2017).
- Highways England, Sustainable Development Strategy and Action Plan (2017).
- HM Government, The Road to Zero.
- The 2030 Agenda for Sustainable Development (2015).
- Department for Transport, Door to Door: A strategy for improving sustainable transport integration.

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. The Local Plan can also be supportive of more sustainable modes of transport. Furthermore, the selection of options for the new spatial strategy 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. The selection of options should also be informed by the proximity of development to essential services and facilities which is likely to influence the need for residents to regularly travel long distances.

The SA should be used to test options in terms of the contribution they can make to making transport choices more sustainable in South Gloucestershire. This includes the contribution they make to the uptake of more sustainable transport options, such as walking and cycling and public transport.

Sub-national Policy Context

3.43 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 B.

Surrounding Development Plans

3.44 Development in South Gloucestershire 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 South Gloucestershire is only directly adjoined by other local planning authority areas to the north, south and east.

3.45 A summary of the following plans for local authority areas which border South Gloucestershire is also provided in Appendix B:

- Bath and North East Somerset Core Strategy (Adopted 2014), Placemaking Plan (Adopted 2017) and Core Strategy Partial Update (Adopted January 2023) – The Council is currently working on a new Local Plan and an Options consultation is due to take place in early 2024.
- Bristol Core Strategy (Adopted June 2011) – The Council is also working on its review of the Local Plan and is currently consulting on a Regulation 19 Local Plan.
- Cotswold District Local Plan 2011-2031 (Adopted August 2018) – The District Council is in the process of partially updating its Local Plan.
- South West Inshore and South West Offshore Marine Plan (Adopted June 2021).
- Stroud District Local Plan (Adopted 2015) – The new Stroud Local Plan was submitted for Examination on 25th October 2021 and at the time of writing, the Examination process is ongoing.
- Wiltshire Core Strategy (Adopted 2015) – The Council is currently preparing the Local Plan Review and recently completed consultation on the Regulation 19 document.

Baseline Information

3.46 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.

3.47 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.”

3.48 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.

3.49 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.

3.50 The baseline information for South Gloucestershire is presented in Appendix C.

Key Sustainability Issues

3.51 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.

3.52 It is also a requirement of the SEA Regulations 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.

3.53 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.

Climate Change

3.54 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.

Opportunities Presented by the Local Plan

3.55 Climate change is likely to have on-going effects regardless of the Local Plan. The effects of climate change are resulting in extreme weather events becoming more common and more intense. Flood risk is of particular

significance in this regard, alongside heatwaves and drought. 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.

3.56 The new Local Plan presents an opportunity to build on these overarching policies through more specific policies and site allocations that act positively with respect to climate change, especially those that limit the need to travel through the appropriate siting and design of new development or consider flood risk. The Local Plan also offers the opportunity to:

- Increase the requirement for zero carbon, energy efficient building design and construction in new development, and support retrofitting to decarbonise heating.
- Promote green infrastructure to deliver flood retention, shading/ cooling, air quality improvements and safe havens for vulnerable species.
- 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.

Increasing Demands for Energy Provision

3.57 New development in South Gloucestershire will mean there will be increasing demands for energy provision in the future.

Opportunities Presented by the Local Plan

3.58 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 a new Local Plan.

3.59 The Local Plan offers the opportunity to update these policies to encourage improved energy efficiency across the plan area and increase the proportion of energy which is supplied by renewable sources.

Threats to Areas of High Ecological Value

3.60 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.

Opportunities Presented by the Local Plan

3.61 Pressures on the natural environment in the authority are likely to continue regardless of the new Local Plan. 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, and these could continue to apply in the absence a new Local Plan.

3.62 However, without the site allocations to be made through the Local Plan, further development may not come forward in the most appropriate locations and impacts on biodiversity could be amplified. The Local Plan 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 South Gloucestershire.

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 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.

Urbanising Influences

3.63 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.

Opportunities Presented by the Local Plan

3.64 Pressures on the countryside are likely to continue regardless of the implementation of a new Local Plan, although the adopted Core Strategy sets out the areas of growth and locations of development (including Green Belt) mainly within or adjacent to existing urban areas and market towns.

3.65 The Local Plan presents an opportunity to update and expand on these policies and further mitigate pressures on the countryside through more specific policies and site allocations that take into account their impacts on South Gloucestershire's landscape. The Local Plan will be able to prevent development coming forward in inappropriate locations, and tailor policy to the area's landscape setting. The Local Plan also mentions developing other options for protecting area of open countryside which communities cherish and help develop Strategic Green Infrastructure corridors as an issue relating to Green Belt in South Gloucestershire.

Air Quality

3.66 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.

Opportunities Presented by the Local Plan

3.67 It is anticipated that traffic congestion and air and noise pollution will continue to increase with the rising population and car dependency will continue to be high. The adopted Core Strategy already contains policy that seeks to provide strategic transport infrastructure, that would remain in place without the new Local Plan.

3.68 The Local Plan presents the opportunity to update and expand on the existing policy and 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. The Local Plan could further identify how poor air quality has a direct effect on health, and traffic related pollution is another big issue.

Landscape Character

3.69 South Gloucestershire 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.

Opportunities Presented by the Local Plan

3.70 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, including those that ensure development proposals are only deemed acceptable where they conserve and where appropriate, enhance the quality, amenity, distinctiveness and special character of the landscape.

3.71 The Local Plan 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.

Historic Assets

3.72 South Gloucestershire includes a number of historic assets of designated importance which are under pressure from new development.

Opportunities Presented by the Local Plan

3.73 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 which would continue to apply in the absence of a new Local Plan.

3.74 The new Local Plan 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 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.

Flood Risk

3.75 There are areas of high flood risk, particularly around the Severn Estuary and main river corridors. Parts of South Gloucestershire are liable to flooding.

Opportunities Presented by the Local Plan

3.76 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. These policies would continue to apply in the absence of a new Local Plan.

3.77 The Local Plan offers the opportunity to locate development in locations which present the lowest flood risk, as well as encourage flood resilient development. The also 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, including green infrastructure and SuDS.

Water Quality

3.78 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 ground and surface waters, in terms of both quality and quantity.

Opportunities Presented by the Local Plan

3.79 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 which would continue to apply in the absence of a new Local Plan.

3.80 The Local Plan 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 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 Environment Agency 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. New Local Plan 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).

Demography

3.81 Demography of the area – An increasing number of people live in South Gloucestershire 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.

Opportunities Presented by the Local Plan

3.82 The ageing population is likely to continue regardless of the implementation of a new Local Plan. The adopted Local Plan includes policies that seek to encourage new developments that contribute to the provision of sustainable and inclusive communities that would continue to apply in the absence of a new Local Plan.

3.83 The Local Plan 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 South Gloucestershire. 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.

Inequalities and Deprivation

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

Opportunities Presented by the Local Plan

3.85 It is expected that areas of inequalities and deprivation will be maintained or worsened without intervention. Although not explicit in the adopted Local Plans, opportunities to consider access to healthcare, open spaces and other recreational facilities would have been considered during identification and allocation of sites.

3.86 The 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.

Employment

3.87 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. Employment sites across the urban areas have been lost to other uses, particularly housing.

Opportunities Presented by the Local Plan

3.88 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.

3.89 The Local Plan presents the opportunity to protect employment sites that are important for the local economy over the plan period, setting out land for new sites. It also presents the opportunity to assess existing safeguarded employment sites for their suitability to be redeveloped to incorporate more flexible and adaptable uses (where possible), to ensure that the needs of businesses are met for the plan period.

Safeguarded Employment Land

3.90 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. The loss of safeguarded employment land has been particularly noticeable in the East Fringe – with the loss of nearly 17 hectares (ha) of land from employment uses.

Opportunities Presented by the Local Plan

3.91 It is expected that 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 which would continue to apply in the absence of a new Local Plan.

3.92 The Local Plan provides the opportunity to amend and strengthen the policies surrounding the loss of employment land alongside limiting the loss of employment land and allocating land in key areas to rebalance the jobs to resident ratio. The Local Plan further presents the opportunity to ensure that there are sufficient jobs in local areas, to minimise the impacts of commuting on the environment and to allow existing and new businesses to invest and grow within South Gloucestershire.

Town Centres and High Streets

3.93 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.

Opportunities Presented by the Local Plan

3.94 In line with national trends, it is expected that town centre vacancies are expected 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 which would continue to apply in the absence of a new Local Plan.

3.95 The Local Plan provides the opportunity to incorporate updated policies to protect the evolving role of the town centres.

Promoting Healthy Lifestyles

3.96 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 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.

Opportunities Presented by the Local Plan

3.97 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. There are policies in the adopted Policies, Sites and Places Plan that promote health and wellbeing and active travel which would continue to apply in the absence of a new Local Plan.

3.98 The Local Plan provides the opportunity to incorporate updated policies to distribute new development as to encourage travel by active modes and enhanced Active Travel Routes. 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.

Providing Enough New Homes

3.99 Providing enough new homes for the growing and changing population of South Gloucestershire (including affordable and to meet the needs of different groups) is a key 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.

Opportunities Presented by the Local Plan

3.100 It is expected that a sufficient supply of housing may not be provided to meet the growing and changing population within South Gloucestershire. The adopted 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 for all communities including the travelling communities,

there is the need to improve the diversity and affordability of stock being delivered.

3.101 The Local Plan presents the opportunity to build on the strengths of the Core Strategy, and can seek to allocate land that is sustainable, adaptable and affordable. Without the Local Plan, 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.

Lack of Suitable Land

3.102 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 safeguarding our built and natural assets in urban locations.

Opportunities Presented by the Local Plan

3.103 It is expected that pressure on urban areas will continue within South Gloucestershire. The adopted Local Plan has allocated land that was deemed the most sustainably suitable for development, however, there is increasing pressure for land outside of existing settlements to be developed.

3.104 The Local Plan presents the opportunity to refresh the settlement boundaries where appropriate to protect the countryside from inappropriate development resulting from growth pressure.

Growth Pressures for Rural Areas

3.105 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.

Opportunities Presented by the Local Plan

3.106 It is expected that pressure on rural areas will continue within South Gloucestershire. Given the housing requirements for the region, there is a risk of speculative and ad-hoc development in the absence of a new Local Plan.

3.107 The Local Plan presents the opportunity for well-planned rural growth which can assist in providing new homes, affordable housing and support rural services, facilities and long-term sustainability.

Need to Safeguard Land for Infrastructure

3.108 Need to safeguard land for infrastructure needed to support growth, from cycle routes, public transport routes, roads, community, education and health facilities.

Opportunities Presented by the Local Plan

3.109 In order to achieve sustainable communities, it is important to ensure that sufficient land is available to enable the provision of infrastructure.

3.110 The Local Plan presents an opportunity to ensure that land is adequately safeguarded for infrastructure provision and to ensure that speculative developments do not sterilise future infrastructure aspirations.

Minerals

3.111 The need to ensure a steady and adequate supply of minerals, and avoid the needless sterilisation of mineral resources.

Opportunities Presented by the Local Plan

3.112 Without intervention, it is expected that insufficient provision will be made for minerals to be worked, and that essential mineral resources will become sterilised through inappropriate development, causing detrimental effects on the aggregates industry in South Gloucestershire and more widely.

3.113 The Local Plan presents an opportunity to ensure that a steady and adequate supply of minerals is maintained. It also presents an opportunity to ensure minerals are extracted in a sustainable way and that the restoration of former mineral extraction areas within South Gloucestershire is progressed over the coming years.

The SA Framework

3.114 As described in Chapter 2, 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 emerging Local Plan is being assessed.

3.115 The following pages present the SA framework for South Gloucestershire. It includes 28 SA objectives which fall within six themes. 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 South Gloucestershire 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 and Phase 2 consultations – these changes are detailed in Appendix A. One change of note is the removal of SA objective 7a. Green Belt - this has been actioned as Green Belt is a policy designation and not an environmental or sustainability designation.

Theme 1. Climate change

Sustainability Objective 1a

- 1a. To minimise South Gloucestershire’s contribution to climate change through a reduction of greenhouse gas emissions from all sources and facilitate the aim of carbon neutrality by 2030.
 - Promote energy efficient and water efficient design.
 - Encourage the provision and use of renewable energy infrastructure.
- NB: Greenhouse gas emissions associated with travel were covered under another SA objectives.

SEA Topic

- Air
- Climatic factors
- Material assets

Sustainability Objective 1b

- 1b. To support South Gloucestershire's adaptation to unavoidable climate change.
 - 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?

SEA Topics

- Air
- Climatic factors
- Material assets

Theme 2. Improve the health, safety and wellbeing of all

Sustainable Objective 2a

- 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.
 - Reasonable distance – In line with South Gloucestershire planning policy quality standards established in the Open Space Audit.

SEA Topics

- Landscape

- Human health
- Population

Sustainable Objective 2b

- 2b. Minimise the impact of noise on sensitive receptors.
 - Sensitive uses = residential, schools.
 - Relevant distance – Adjacent to noise generating uses.

SEA Topics

- Human health
- Population

Sustainable Objective 2c

- 2c. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality.
 - Sensitive uses = residential, schools, children's facilities, nursery's, elderly people accommodation.

SEA Topics

- Air
- Climatic factors
- Human health
- Population

Sustainable Objective 2d

- 2d. Achieve reasonable sustainable access to healthcare services and facilities (Doctors and Dentists).

SEA Topics

- Material assets
- Human health
- Population

Theme 3. Support communities that meet people's needs

Sustainable Objective 3a

- 3a. Deliver a suitable quantum of high quality housing for South Gloucestershire.

SEA Topics

- Material assets
- Population

Sustainable Objective 3b

- 3b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within south Gloucestershire.

SEA Topics

- Material assets
- Population

Sustainable Objective 3c

- 3c. Achieve reasonable sustainable access to community facilities (Post Office, Dedicated Community Centre, Public House, Library).

SEA Topics

- Material assets
- Human health
- Population

Sustainable Objective 3d

- 3d. Achieve reasonable sustainable access to educational facilities (primary schools, secondary schools).

SEA Topics

- Material assets
- Population

Sustainable Objective 3e

- 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).

SEA Topics

- Material assets
- Population

Sustainable Objective 3f

- 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.

SEA Topics

- Material assets
- Population

Sustainable Objective 3g

- 3g. Improve access to high speed broadband.

SEA Topic

- Population

Theme 4. Develop a diverse and thriving economy that meets people's needs

Sustainable Objective 4a

- 4a. Deliver a reasonable quantum of employment floorspace.

SEA Topics

- Material assets
- Population

Sustainable Objective 4b

- 4b. Achieve reasonable sustainable access to major employment areas.

SEA Topics

- Material assets
- Population
- Air
- Climatic factors

Theme 5. Maintain and improve environmental quality and assets

Sustainable Objective 5a

- 5a. Designated Assets: Minimise impact on and where appropriate enhance the historic environment, national heritage assets and their settings.

SEA Topic

- Cultural heritage

Sustainable Objective 5b

- 5b. Undesignated Assets: Minimise impact on and where appropriate enhance the historic environment, local heritage assets and their settings.

SEA Topic

- Cultural heritage

Sustainable Objective 5c

- 5c. 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.
- This SA objective has been updated to take into account the effects of climate change on biodiversity. The words “Minimise impact on and where possible enhance habitats and species” were replaced with “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”.

SEA Topics

- Biodiversity
- Climatic factors
- Fauna & flora

Sustainable Objective 5d

- 5d. Minimise impact on and where appropriate enhance valued landscapes (including the Cotswolds AONB and its setting).

SEA Topics

- Cultural heritage
- Landscape

Sustainable Objective 5e

- 5e. Deliver a range and quality of, and increased access to new green infrastructure across South Gloucestershire AND protect and enhance existing GI.

SEA Topics

- Biodiversity
- Climatic factors
- Fauna & flora
- Landscape
- Soil
- Water

Sustainable Objective 5f

- 5f. Promote the conservation and wise use of land, maximising the re-use of previously developed land.

SEA Topics

- Fauna & flora
- Landscape
- Soil

Sustainable Objective 5g

- 5g. Minimise the loss of productive land, especially best and most versatile agricultural land.

SEA Topics

- Landscape
- Soil

Sustainable Objective 5h

- 5h. Minimise vulnerability to tidal/fluviat flooding (taking account of climate change), without increasing flood risk elsewhere.

SEA Topics

- Climatic factors
- Water

Sustainable Objective 5i

- 5i. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere.

SEA Topics

- Climatic factors
- Water

Sustainable Objective 5j

- 5j. Minimise harm to, and where possible protect and enhance (surface and groundwater) water quality and quantity/availability.

SEA Topic

- Water

Theme 6. Use of natural resources

Sustainable Objective 6a

- 6a. Reduce waste.

SEA Topic

- Material assets

Sustainable Objective 6b

- 6b. Minimise consumption and extraction of minerals.

SEA Topic

- Material assets

Chapter 4

SA Findings for Site Options

4.1 This chapter presents the SA findings for the site options that have been considered for allocation in the Phase 3 consultation document. This site appraisal work supersedes the site appraisal work that was carried out at the Phase 2 stage.

4.2 During the most recent Call for Sites a total of 523 sites were submitted. To understand whether all of these sites were viable the Council:

- Contacted promoters where sites were overlapping to identify the owner (and promoter) of sites and remove overlaps.
- Removed duplicate submissions.
- Removed sites that had already received planning permission and commenced (and in some cases completed) build out, for example SG291 at Charfield.
- Removed a small number of sites promoted for non-development uses, for example SG259 which was promoted for Green Belt extension which were also discounted from the HELAA process.
- Discounted sites which had been previously submitted but which had since been withdrawn by the promoter, for example SG843 and SG844 which were promoted by South Gloucestershire Property Services.
- Removed sites which were not considered capable of delivering five homes or more.
- Removed sites where the Council had not heard from the promoters since 2018. The Council attempted to make contact with these promoters, and sites were discounted where no response was received.

Chapter 4 SA Findings for Site Options

4.3 After the Council had completed the above, the list of site options was reduced to 393 sites, all of which are appraised in Tables 4.1, 4.2 and 4.3 below.

4.4 Tables 4.1, 4.2 and 4.3 show the summary of likely SA effects in relation to the residential, employment and mixed use options. The assessment criteria used to appraise the site options can be found in Appendix D.

Table 4.1: Likely SA effects of the Residential Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG002	Land at, Marsh Farm, East Pucklechurch	?	?	++	0	0	++	++	++	+	+	-	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	0
SG003	Land at The Griffin, Warmley	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	++	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG004	Land South of Gloucester Road, Almondsbury	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG007	Field to west of Engine Common	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	--	--	--	-	0	--	-	0	-	0	0	-
SG009	Land at Church Lane, Cromhall, GL12 8AL	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	0	--	--	--	0	--	0	0	-
SG010	Field to South of Tanhouse Lane (Opposite Leechpool Dairy Farm)	?	?	++	0	0	--	++	++	--	--	--	+	0	0	--	0	0	--	0	--	--	-	0	-	0	0	-
SG011	Fields to West of Engine Common (Adjacent to 13 Engine Common)	?	?	++	0	0	+	++	++	+	+	--	+	0	0	-	--	--	--	-	0	--	-	0	-	0	0	-
SG012	Woodland and Fields to the east of North Road	?	?	++	0	0	+	++	++	+	++	--	+	0	0	++	0	0	--	-	0	--	-	0	-	0	0	-
SG014	Land to East of Engine Common	?	?	++	0	0	+	+	+	+	+	--	+	0	0	-	0	0	--	-	0	--	-	0	-	0	0	-
SG022	Land between France Lane and Park Street, Hawkesbury Upton	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	--	-	0	-
SG023	Land to the rear of The Buthay, Wickwar	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	-
SG024	Land to the West of B4058 at Bagstone, between Court Orchard and The Old Plough	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	-	--	?--	0	-	0	0	-
SG026	Part of France Lane Farm, Hawkesbury Upton	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	-	-	0	-
SG027	Land at Bristol Road, Hambrook	?	?	?--	--	0	++	++	++	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	-
SG030	Land south of Gloucester Road, Thornbury	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	0
SG032	Land at Castle Farm Road, Hanham	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG033	Land at Church Road, Severn Beach	?	?	?--	--	0	+	++	++	+	+	-	+	0	0	++	--	--	--	0	--	--	?--	--	-	0	0	0
SG034	Land on the East side of Dyers Lane, Iron Acton, Bristol	?	?	++	0	0	+	++	++	+	+	-	+	0	0	++	--	--	--	-	0	--	?--	0	--	0	0	-
SG036	Land at Windmill Farm, Sodbury Road, Wickwar	?	?	++	0	0	+	+	+	+	--	--	+	0	0	+	0	0	-	-	0	--	?--	0	--	0	0	0
SG039	Land at Ford Farm, Yate Rocks	?	?	++	0	0	--	++	++	--	--	--	+	0	0	--	--	--	--	-	-	--	?--	0	--	0	0	-
SG045	Land west of Sodbury Rd, Wickwar	?	?	++	0	0	+	+	+	+	--	--	+	0	0	+	--	--	-	-	0	--	?--	0	--	0	0	0
SG050	Harvey Shopfitters Ltd, Warehouse & Premise adjacent to 19 Common Rd, Hanham	?	?	?--	0	0	+	+	+	+	++	-	+	0	0	-	0	0	--	?--	--	+	?--	0	0	0	?+	-
SG051	Land at Brewery Hill, Upton Cheyney, Bristol, BS30 6LY	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	0
SG053	Land north and east of Lyde Green Road, Emersons Green	?	?	++	0	0	--	++	++	--	--	--	+	0	0	+	0	0	--	?--	-	--	?--	0	-	0	0	-
SG054	Crossways Business Park, Crossways Lane, Thornbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	-	+	--	0	0	0	?+	0
SG056	Lansdown House, Whitewall Lane, Thornbury	?	?	++	0	0	--	+	+	+	--	--	+	0	0	--	0	0	-	?--	--	--	--	0	-	0	0	0
SG057	Land at Bristol Road, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG058	Land off Chase Lane, Wickwar	?	?	?--	--	0	+	+	+	+	+	--	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	0
SG059	Land to rear of Ducie Close, Cromhall, GL12 8AH	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG061	Land near Old Gloucester Road, Alveston	?	?	++	--	0	+	+	+	+	--	-	+	0	0	-	--	--	--	-	--	+	?--	0	--	0	?+	-
SG063	Land adjacent to Falfield Village, Eastwood Park, Falfield	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	0	--	--	?--	0	--	0	0	0
SG065	Land at Barnhill, Chipping Sodbury	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	+	0	0	--	-	0	++	?--	0	--	0	?+	-
SG068	Land East of Coalpit Heath	?	?	++	--	0	++	++	++	+	--	+	+	0	0	+	--	--	--	0	0	--	?--	0	--	0	0	-
SG070	Land east of Abson Road, Pucklechurch	?	?	++	0	0	++	++	++	+	--	-	+	0	0	+	--	--	-	-	0	+	?--	0	0	0	?+	0
SG079	Land north of High Street, Iron Acton, South Gloucestershire	?	?	?--	0	0	+	+	+	+	+	--	+	0	0	--	--	--	-	?--	--	--	?--	0	--	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG080	Land at Yew Tree Farm, Morton Street, Thornbury	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0
SG081	Land by Aust Road and Elberton Road, Olveston(3)	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	-
SG082	Land at Hanham Cricket Club	?	?	?--	0	0	++	++	++	+	++	-	+	0	0	--	0	0	--	?--	--	--	--	0	-	0	0	-
SG083	Land at Rudgeway	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	--	--	--	--	?--	-	--	?--	0	-	0	0	-
SG084	Corner of Forty Acre Lane, Alveston, BS35 3QU	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	-	+	?--	0	0	0	?+	-
SG086	Land by Aust Road and Elberton Road, Olveston(1)	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	--	-	0	0	0
SG093	Land west of North Road - Engine Common (inc. Football Ground)	?	?	++	--	0	+	++	++	+	++	-	+	0	0	++	0	0	--	-	0	--	?--	0	--	0	0	-
SG100	Land at Badminton Road, Yate	?	?	++	--	0	+	++	++	++	--	-	+	0	0	++	--	--	--	-	--	--	--	0	--	0	0	-
SG101	Land at Haw Lane, Olveston	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	--	--	--	0	-	0	0	-
SG102	Land at Upper Hazel Farm, Strode Common, Alveston	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
SG103	Glebe Field and Wood	?	?	?--	0	0	+	+	+	+	++	-	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
SG105	Land to the north of Abbots Road/Court Farm Road	?	?	++	--	0	+	++	++	+	--	-	+	0	0	-	--	--	--	?--	--	--	--	0	-	0	0	-
SG106	Land South of, Forty Acre Lane, Alveston	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	--	--	--	?--	0	--	?--	0	-	0	0	-
SG107	Land off Park Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	-
SG108	The Ridings, Wickwar Road, Chipping Sodbury	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	+	0	0	--	-	0	--	?--	0	-	0	0	-
SG112	Land east of Chipping Sodbury	?	?	++	--	0	+	++	++	+	--	+	+	0	0	+	--	--	--	?--	--	--	?--	0	--	0	0	0
SG113	Land to the south of Charfield	?	?	++	0	0	+	++	++	+	+	-	+	0	0	+	--	--	--	--	--	--	?--	0	-	0	0	0
SG114	Woodlands Golf Course, Trench Lane, Almondsbury, (Woodlands Garden Village)	?	?	?--	--	0	+	++	++	+	++	-	+	0	0	+	--	--	--	?--	-	++	?--	0	0	0	?+	0
SG119	Land at, Hallen Field, Severn Road, Hallen	?	?	++	--	0	+	+	+	+	--	--	+	0	0	-	0	0	--	?--	--	--	?--	--	--	0	0	0

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG131	Land at, Cossham Street, Mangotsfield	?	?	?--	0	0	+	++	++	+	++	-	+	0	0	-	--	--	--	?--	--	--	-	0	--	0	0	-
SG134	Land to the South of Hardy Lane and West of Lower Tockington Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	--	--	--	-	-	--	?--	0	--	0	0	-
SG135	Land to the west of, Ableton Lane, Severn Beach	?	?	++	--	0	+	++	++	+	+	-	+	0	0	++	--	--	--	0	--	--	-	--	-	0	0	0
SG136	Land at, Bank Road, Pilning	?	?	++	--	0	++	+	+	+	+	-	+	0	0	++	--	--	--	-	--	--	?--	--	-	0	0	0
SG157	Land at, Post Farm, Thornbury	?	?	?--	0	0	+	++	++	+	+	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0
SG158	Land adjacent, Westways, Wotton Road, Rangeworthy	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
SG163	Land to the rear of, Burma House and Bella Vista, Westerleigh Road, Westerleigh	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	0	0	+	-	0	--	0	?+	-
SG169	Rowley Fields, Watery Lane	?	?	++	--	0	++	+	+	+	+	--	+	0	0	++	--	--	--	-	0	--	-	--	--	0	0	-
SG170	Land at, Totteroak Farm, Little Sodbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	-	?--	-	+	?--	0	0	0	?+	0
SG172	Land to the Rear of, London Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	-	+	?--	0	--	0	?+	0
SG174	Land at Old Hundred House, Tormarton,	?	?	++	--	0	+	++	++	+	--	--	+	0	0	--	--	--	--	?--	0	--	?--	0	-	0	0	-
SG177	Land off, Alveston Hill, Thornbury	?	?	++	0	0	+	++	++	+	+	-	+	0	0	-	--	--	--	-	--	--	?--	0	--	0	0	-
SG178	Land off, Beacon Lane, Winterbourne	?	?	?--	0	0	++	+	+	+	+	+	+	0	0	--	--	--	-	0	0	+	--	0	0	0	?+	-
SG179	Land adjacent, The Bungalow, Cutts Heath	?	?	++	0	0	--	+	+	--	--	--	+	0	0	--	0	0	-	?--	--	+	?--	0	--	0	?+	0
SG181	Site W3, Land off, Bristol Road	?	?	++	0	0	++	+	+	++	++	+	+	0	0	--	--	--	-	0	0	--	--	0	--	0	0	-
SG182	Site W2, Land off, Bristol Road	?	?	?--	0	0	++	++	++	+	--	+	+	0	0	--	0	0	-	-	0	--	--	0	--	0	0	-
SG183	Site W1, Land off, Bristol Road	?	?	++	0	0	++	+	+	+	++	+	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
SG193	Jarretts Nurseries, Barry Road, Oldland Common	?	?	++	--	0	++	+	+	+	++	-	+	0	0	-	--	--	-	?--	--	+	?--	0	0	0	?+	-
SG209	Land at, Shortwood	?	?	?--	--	0	+	++	++	+	+	+	+	0	0	-	0	0	--	?--	--	--	?--	0	--	0	0	-
SG212	Land north of, London Road, Wick	?	?	++	--	0	++	+	+	--	--	-	+	0	0	--	0	0	--	?--	-	--	?--	0	-	0	0	0
SG227	East of, Green Lane, Marshfield	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b	
SG228	Land off, Wotton Road, Rangeworthy	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	0	-
SG230	Land at, Townsend Lane, Almondsbury	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0	-
SG242	Land off, Perrinpit Road, and Bristol Road	?	?	++	0	0	++	++	++	+	--	--	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	0	-
SG279	Westmarsh Lane, Oldbury on Severn,	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0	0
SG285	Homeapple Hill, South of Bridgegate Common	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	-	--	--	--	?--	--	+	?--	--	0	0	?+	-	
SG289	Land adjacent to The Fosse, Crossways Lane, Thornbury	?	?	++	0	0	--	+	+	--	--	--	+	0	0	--	0	0	--	-	--	--	--	0	-	0	0	0	
SG292	Land at Alveston Road, Old Down	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0	-
SG295	Cloisters Road, Winterbourne, BS36 1LL	?	?	++	0	0	++	++	++	++	++	+	+	0	0	-	--	--	--	0	0	--	--	0	--	0	0	0	-
SG304	Hill Farm, Westerleigh Hill, Westerleigh	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	?--	--	--	-	0	--	0	0	0	0
SG312	Land Behind 189 - 207 North Road Yate	?	?	++	--	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	--	?--	0	--	0	0	0	-
SG315	Land Off Station Road Iron Acton	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	0	-
SG316	Rear of: 359 North Road, Yate	?	?	++	0	0	+	+	+	+	--	--	+	0	0	-	0	0	--	0	0	--	?--	0	--	0	0	0	-
SG320	Abbots Way, Gloucester Rd, Almondsbury	?	?	+	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0	-
SG323	Stable Folly, Stowell Hill Road, Tytherington	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	+	?--	0	--	0	?+	-	
SG327	Land at the Paddock Site	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	?--	0	--	--	0	-	0	0	0	-
SG330	Land at Over Lane, Almondsbury, BS32 4BT	?	?	++	0	0	+	+	+	+	--	--	+	0	0	+	--	--	--	?--	--	--	--	0	--	0	0	0	-
SG332	Land at Hortham Lane, Almondsbury, BS32 4JH	?	?	++	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	0	-
SG347	Land Adjacent Lyde Green Farm, Emersons Green	?	?	++	--	0	--	++	++	--	--	--	+	0	0	+	0	0	--	?--	-	--	?--	0	--	0	0	0	-
SG348	Land Adjacent to Tormarton	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0	-
SG367	Villa Farm, Aust, BS35 4AX	?	?	++	0	0	+	+	+	+	--	--	+	0	0	+	--	--	--	-	--	+	?--	--	0	0	?+	0	

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SG372	The Sawmills, Bath Road, Bridge Yate	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	++	?--	--	--	0	?+	-
SG380	Land off Bristol Road	?	?	++	0	0	++	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	-
SG382	Land at Pool Lodge Farm, Dyers Lane, Iron Acton	?	?	++	0	0	+	++	++	+	-	-	+	0	0	++	--	--	--	-	0	--	?--	0	--	0	0	-
SG383	Land at Dyers Lane, Iron Acton	?	?	++	0	0	+	++	++	+	--	--	+	0	0	-	0	0	-	-	0	--	?--	0	--	0	0	-
SG386	Land at Short Hill Road, Westerleigh	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	-	--	-	0	-	0	0	-
SG387	Land at Shortwood	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
SG392	Land at Field 1 Old Rectory, High Street, Iron Acton	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	-	?--	--	--	?--	0	--	0	0	-
SG393	Land at Field 2 Old Rectory, High Street, Iron Acton	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	--	?--	--	--	?--	--	--	0	0	-
SG394	Land on the West Side of Ram Hill, Coalpit Heath	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	-
SG397	Land at 4 Harris Barton, Frampton Cotterell	?	?	++	0	0	++	+	+	+	--	--	+	0	0	--	--	--	--	-	--	+	?--	0	0	0	?+	-
SG399	Land at Hambrook Business Park, The Stream, Hambrook	?	?	++	--	0	+	+	+	+	--	-	++	0	0	-	--	--	--	0	--	+	--	--	--	0	?+	-
SG400	Land to the South of Minerva, 15 Gloucester Road, Rudgey	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	-	--	+	?--	0	0	0	?+	-
SG401	Land Between Over Lane and the B4055, Easter Compton	?	?	++	0	0	+	++	++	+	--	--	+	0	0	-	0	0	--	?--	--	--	?--	0	-	0	0	0
SG402	Land at New Farm, 215 Bristol Road, Frampton Cotterell	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	-	0	+	--	0	--	0	?+	-
SG405	Land at Pool Farm, Whitfield, Wotton Under Edge	?	?	+	--	0	+	+	+	--	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	0
SG409	Land to the west of Stowell Hill Road, Tytherington	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	-
SG416	Land at West Street Farm, West Street, Tytherington	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	--	--	--	0	--	0	0	-
SG419	Land at 404 North Road, Yate	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	-	0	--	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG425	Land on the North Side of Shaymoor Lane, Lyde Green	?	?	++	--	0	++	++	++	+	--	++	+	0	0	+	0	0	--	?--	--	--	?--	0	--	0	0	-
SG427	Land to the Rear of Almshouses, Marshfield	?	?	++	--	0	++	+	+	+	--	-	+	0	0	-	--	--	-	?--	--	--	?--	0	-	0	0	-
SG428	Land at former Kleeneze Site, Ansteys Road, Hanham	?	?	++	--	0	++	++	++	++	++	++	+	0	0	0	0	0	--	?--	0	++	-	0	0	0	?+	-
SG429	Land at Manor Farm, Tormarton	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	?--	0	+	?--	0	0	0	?+	-
SG436	Land at Filton 20 Business Park, Golf Course Lane	?	?	?--	--	0	++	++	++	++	+	+	+	0	0	++	0	0	--	?--	0	++	-	0	0	0	?+	-
SG437	Land to the North of the Railway Line, Winterbourne	?	?	++	0	0	++	+	+	+	+	+	+	0	0	+	0	0	--	0	--	--	?--	0	-	0	0	-
SG445	Land at Tytherington	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	0	--	--	?--	--	--	0	0	-
SG446	Land at York Gardens, Winterbourne	?	?	?--	0	0	++	+	+	+	--	-	+	0	0	0	0	0	-	-	0	+	-	0	--	0	0	-
SG448	Land at Church Farm, Moorhouse Lane, Hallen	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	-	+	?--	0	--	0	?+	0
SG450	Land Adjacent to A38, Alveston	?	?	++	--	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	-	--	?--	0	-	0	0	-
SG452	Land at Lower Woodhouse Farm, Fernhill, Almondsbury	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	0
SG454	Land Adjoining 294 Badminton Road, Coalpit Heath	?	?	++	--	0	+	+	+	+	--	+	+	0	0	-	0	0	-	-	0	--	?--	--	--	0	0	-
SG455	Land at Rockland, Dodmore Crossing, Westerleigh	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	0	--	-	0	--	0	0	-
SG463	Land on the West side of Churchend Lane, Charfield	?	?	++	0	0	--	++	++	+	--	-	+	0	0	--	--	--	-	-	--	--	?--	0	--	0	0	-
SG465	15 and 17a, London Road, Warmley	?	?	++	--	--	+	+	+	+	+	-	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-
SG470	Land at Beech Hill Farm, Westerleigh Road, Yate	?	?	++	--	0	++	++	++	+	--	-	+	0	0	++	--	--	-	0	0	++	?--	0	--	0	?+	-
SG477	Stover Bridge, Nibley Gardens, Bridge Road	?	?	++	0	0	+	+	+	+	--	-	+	0	0	++	0	0	--	-	0	--	?--	0	--	0	0	-
SG480	Grange Farm, Tormarton	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	?--	0	+	?--	0	--	0	?+	-

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SG482	Land to West of North Road and South of Mission Road, Engine Common	?	?	++	0	0	+	+	+	+	++	--	+	0	0	++	--	--	--	-	0	--	?--	0	--	0	0	0	-
SG498	Oxbarton Mead Road	?	?	++	0	0	++	+	+	+	+	-	++	0	0	-	0	0	-	?--	0	--	?--	0	--	0	0	0	0
SG547	Highwood Road Cribbs Causeway	?	?	++	--	0	+	+	+	--	--	+	+	0	0	+	0	0	-	?--	0	+	?--	0	0	0	?+	0	
SG569	Savages Wood Road, Land Off	?	?	++	0	0	++	+	+	++	++	+	++	0	0	+	0	0	-	?--	0	--	?--	0	-	0	0	0	
SG603	Land at Cribbs Causeway	?	?	++	--	0	+	++	++	--	--	-	+	0	0	-	0	0	--	?--	--	--	?--	0	-	0	0	0	
SG608	Land at Vilner Farm, Thornbury	?	?	?--	--	0	++	++	++	+	--	++	+	0	0	+	--	--	--	?--	--	--	--	0	--	0	0	0	
SG609	Land at Jeffries Hill Bottom, Hanham	?	?	++	0	0	++	+	+	++	+	+	+	0	0	+	0	0	--	?--	0	--	-	0	-	0	0	-	
SG610	Land on the South Side of Court Farm, Longwell Green and South of Stratton Place, Court Farm Road	?	?	++	0	0	+	+	+	+	--	-	+	0	0	-	--	--	--	?--	--	--	?--	0	--	0	0	-	
SG612	Henfield Paddock, Henfield Road, Coalpit Heath	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	+	?--	0	0	0	?+	-	
SG613	Land on the north side of Badminton Road	?	?	+	--	0	+	++	++	+	--	--	+	0	0	++	--	--	-	-	--	++	?--	0	--	0	?+	-	
SG615	Castle Farm, Poplar Lane, Wickwar, Wotton-Under-Edge, GL12 8NS	?	?	++	0	0	+	++	++	+	+	--	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	0	
SG616	Land at Gllslake Farm, Pilning	?	?	+	--	0	+	++	++	+	--	--	+	0	0	++	--	--	--	?--	--	--	?--	--	-	0	0	0	
SG618	Land to the South of Church Lane, Winterbourne	?	?	++	0	0	++	+	+	++	+	+	+	0	0	--	--	--	-	-	--	--	--	0	-	0	0	-	
SG619	Land at Down Road and badminton Road	?	?	++	--	0	+	++	++	+	--	-	+	0	0	-	0	0	--	-	--	--	?--	0	-	0	0	-	
SG620	Land to west of Park Farm	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0	
SG621	Land East of North Road, Engine Common	?	?	++	0	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	--	-	0	-	0	0	-	
SG700	Land to rear of 1 Cleeves Court Court Farm Road Longwell Green Bristol BS30 9AW	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	-	--	--	--	?--	--	--	?--	0	--	0	0	-	
SG701	Meadow Lodge Farm, The Hollows, Coalpit Heath, BS36 2UX	?	?	++	--	0	+	++	++	+	--	--	+	0	0	+	--	--	--	?--	--	--	?--	0	-	0	0	-	
SG704	Land south of Yate Road, Yate	?	?	++	0	0	+	++	++	+	--	-	+	0	0	++	--	--	--	-	--	--	?--	0	--	0	0	-	

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG705	Land to the north of The Old Rectory, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0
SG706	Millstream Works, Station Works, Wickwar, Wotton-Under-Edge, GL12 8NB	?	?	++	--	0	+	+	+	+	--	--	+	0	0	+	--	--	--	-	--	+	?--	0	--	0	?+	0
SG707	Land Next To Hill Crest, Nibley Lane, Nibley, Bristol, BS37 5JG	?	?	++	0	0	+	++	++	+	--	-	+	0	0	++	0	0	-	-	--	--	?--	0	--	0	0	-
SG708	Hallen Wood Yard, Berwick Lane, Hallen, Bristol, BS10 7RR	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	+	?--	0	--	0	?+	0
SG711	Land at Grey Gables, Vicarage Lane, Olveston,	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	--	0	--	0	?+	-
SG712	Land to the north of Beacon Lane, Winterbourne	?	?	?--	0	0	++	++	++	+	+	+	++	0	0	++	--	--	--	-	--	--	--	0	--	0	0	-
SG717	Land off Midland Way, Thornbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	+	0	0	--	?--	--	--	--	0	--	0	0	0
SG719	The Meads, Common Mead Lane, Hambrook,	?	?	++	--	0	+	+	+	-	--	-	++	0	0	++	--	--	--	?--	--	+	--	0	--	0	?+	0
SG721	Land behind 143 High Street Marshfield	?	?	++	0	0	++	+	+	+	--	-	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	-
SG722	Little Park Farm, Chipping Sodbury, Bristol.	?	?	?--	0	0	--	+	+	--	--	--	+	0	0	--	--	--	-	?--	--	+	?--	0	0	0	?+	0
SG724	Land at Fernhill, Almondsbury	?	?	+	0	0	+	+	+	--	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	0
SG725	Land at Woodmans Cottage, Eastwood Park	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	+	?--	0	--	0	?+	0
SG726	Land at Merville Farm	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	0	0	-	-	--	+	?--	0	0	0	?+	0
SG727	Land on the South Side of Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
SG728	Land at North Road, Yate	?	?	++	--	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	+	-	0	0	0	?+	-
SG729	Land to the east of Bristol Road	?	?	?--	0	0	++	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	--	0	--	0	0	-
SG730	Land to east of B4058 at Heath End	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	0	--	?--	--	--	0	0	-
SG731	Land at Townwell, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
SG732	Land to rear of 450 North Road, Yate	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	+	-	0	--	0	?+	-

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SG733	South side of 122 Westerleigh Road, Pucklechurch	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	0
SG736	The Orchard Hacket Lane Thornbury	?	?	++	0	0	+	+	+	--	+	-	+	0	0	--	--	--	--	?--	--	+	--	--	0	0	?+	0
SG737	Land at 12, The Park, Willsbridge BS30 6EE	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	?--	0	0	0	?+	0
SG738	Jarretts Garden Centre, Bath Road	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	--	0	0	0	?+	0
SG739	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	0	--	?--	0	-	0	0	-
SG740	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	0	0	--	?--	0	--	0	0	-
SG741	Land to North of New Street, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	+	--	--	--	0	--	--	?--	0	-	0	0	0
SG742	Land adjacent to north of Heath End Garage	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	-
SG744	Land at Angers Farm, Earthcott	?	?	+	--	0	--	++	++	--	--	--	+	0	0	--	0	0	--	?--	0	--	?--	0	--	0	0	0
SG745	Land at Church Hill (known as 'The Lagger'), Oldbury on Severn BS35 1QG	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	-	--	-?-	0	--	0	0	0
SG747	Land between Hallen Road and Moorhouse Lane, Hallen	?	?	++	--	0	+	++	++	+	--	--	+	0	0	--	--	--	--	?--	-	--	?--	0	-	0	0	0
SG748	Land at Wellinghouse Farm, Moorhouse Lane	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	-	0	+	?--	--	--	0	?+	0
SG749	The Oaks, Filton Road, Hambrook	?	?	?--	--	0	+	++	++	+	--	-	++	0	0	++	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG750	Old Stores, Chapel Road, Oldbury-on-Severn	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	--	--	0	?+	0
SG751	Hill House Farm, Sodbury Road, Wickwar	?	?	++	0	0	+	++	++	--	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
SG752	White House Lane, Church Road, Pilning	?	?	++	--	0	++	++	++	+	--	-	+	0	0	-	--	--	--	-	--	--	?--	--	-	0	0	0
SG753	Land South Side of Church Road	?	?	++	--	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	--	?--	0	--	0	0	0
SG756	Land west of Sodbury Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	+	--	--	-	0	--	--	?--	0	--	0	0	0
SG757	Land south of Wickwar Road, Rangeworthy	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	--	--	--	-	-	--	?--	0	--	0	0	-
SG759	Land north of Holbrook Lane	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG760	Land south of Abbots Road	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
SG761	Land south of Upper Tockington Road	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	-	-	--	--	?--	0	-	0	0	-
SG762	Land west of Winterbourne Hill	?	?	++	0	0	++	++	++	+	+	+	+	0	0	-	0	0	--	0	--	--	--	0	-	0	0	-
SG766	Feltham Farm, Hinton Road, Pucklechurch BS16 9JS	?	?	+	0	0	--	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	+	?--	0	0	0	?+	0
SG767	Behind Bridgegate House London Road	?	?	++	--	0	++	++	++	+	--	--	+	0	0	++	--	--	--	?--	--	--	?--	--	--	0	0	-
SG768	Land off Gloucester Road (B4061)	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0
SG769	Land north of Haw Lane, Olveston	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	--	0	-	0	0	-
SG770	Land south of Badminton Road	?	?	?--	--	0	+	+	+	+	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0
SG771	Land north of The Down, Old Down	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	--	0	--	0	0	-
SG772	The Old Windmill, Falfield (Parcel A)	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0
SG773	The Old Windmill, Falfield (Parcel B)	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	0
SG779	Land at Castle Inn Farm	?	?	?--	0	0	--	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
SG781	Land North of A38, Alveston	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	-
SG782	Land at Cann Lane, Wick	?	?	++	--	0	+	+	+	+	--	--	+	0	0	-	--	--	-	?--	--	--	?--	0	-	0	0	-
SG785	Woodhouse Park	?	?	++	--	0	+	++	++	--	--	-	+	0	0	--	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG786	Land off Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
SG788	Badminton Road, Winterbourne	?	?	++	--	0	+	+	+	+	--	-	+	0	0	0	0	0	--	-	--	+	-	0	0	0	?+	-
SG789	Land by Aust Road and Elberton Road, Olveston(2)	?	?	?--	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	-
SG791	Webbs Heath Farm	?	?	?--	0	0	--	+	+	+	--	--	--	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
SG792	Land to the south of Tanhouse Lane, Engine Common, Yate, South Gloucestershire, BS37 7PX	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG793	Land north and west of Hambrook, Bristo	?	?	++	--	0	+	+	+	+	--	-	++	0	0	-	--	--	--	-	--	--	--	0	--	0	0	-
SG794	Green Lane	?	?	++	--	0	+	+	+	+	--	--	+	0	0	-	--	--	--	-	--	--	?--	--	-	0	0	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG795	Land At France Lane To East Of Hawkesbury	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	-	-	0	-
SG796	Land at Badminton Road	?	?	++	--	0	+	+	+	++	--	++	+	0	0	++	0	0	-	0	0	+	-	0	--	0	?+	-
SG797	Land at Grey Cot	?	?	++	0	0	+	++	++	+	+	-	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0
SG798	Land south west of Cromhall Lane	?	?	+	0	0	--	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0
SG799	Land adjoining 1-6 Aust Road, Northwick	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	--	?--	--	--	0	0	0
SG801	Land off North Road, Yate BS37 7LJ	?	?	++	0	0	+	+	+	+	--	--	+	0	0	-	0	0	--	-	0	--	?--	0	-	0	0	-
SG802	Land on the north of Bury Hill Lane	?	?	+	0	0	--	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
SG803	Land off Claypitt Hill	?	?	++	0	0	+	++	++	+	++	-	+	0	0	-	--	--	--	-	--	--	?--	0	-	0	0	0
SG804	Land at Hares Farm	?	?	--	0	0	--	+	+	--	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	0
SG805	Land at Pound Farm	?	?	++	0	0	++	++	++	+	+	-	+	0	0	--	--	--	--	0	--	++	?--	0	--	0	?+	0
SG807	Pilning Village Hall and playing field	?	?	--	--	0	++	+	+	+	+	-	+	0	0	++	--	--	--	0	--	+	?--	--	0	0	?+	0
SG808	Bank Road, Pilning BS35 4JG	?	?	--	0	0	++	+	+	+	+	-	+	0	0	++	--	--	--	-	--	--	?--	--	-	0	0	0
SG810	Engine Common Yate	?	?	++	0	0	+	++	++	--	+	--	+	0	0	--	0	0	--	-	--	++	?--	--	--	0	?+	-
SG812	Land at Gilslake Farm	?	?	+	--	0	+	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	++	?--	--	0	0	?+	0
SG817	Land to west of Wotton Road	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
SG820	Nibley Road Bird Farm, Nibley Lane, Yate BS37 5JG	?	?	++	--	0	+	+	+	+	--	--	+	0	0	++	0	0	-	-	--	--	-	0	--	0	0	-
SG821	Recreation Ground Oaklands Drive, Almondsbury	?	?	++	--	0	++	+	+	+	+	-	+	0	0	+	--	--	--	0	--	+	?--	0	0	0	?+	0
SG822	Crossley Farm, Swan Lane, Winterbourne BS36 1RH	?	?	++	0	0	++	+	+	+	++	+	+	0	0	--	0	0	-	-	0	--	--	0	--	0	0	-
SG823	Field to south of Rock View, Engine Common Lane	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	--	?--	0	--	0	0	-
SG824	West of Yate Rocks	?	?	++	0	0	+	++	++	--	--	--	+	0	0	--	0	0	--	-	-	--	?--	--	--	0	0	-
SG825	Land off Blackhorse Hill	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0

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Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG826	Land at Hideaway Cottage, Whitfield GL12 8DR	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	?--	--	+	?--	0	0	0	?+	0
SG828	The Saw Mills, Cuckoo Lane	?	?	++	0	0	+	+	+	+	--	-	+	0	0	+	0	0	--	-	--	+	?--	0	0	0	?+	-
SG829	Land east of Inglestone Road / Alexander Hosea School, Wickwar, South Gloucestershire	?	?	?--	0	0	+	++	++	+	+	--	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	0
SG833	Land East of Coldharbour Lane, Stoke Gifford, Bristol, BS16 1FJ	?	?	++	--	0	+	+	+	+	--	-	++	0	0	++	0	0	--	?--	-	+	?--	0	0	0	?+	0
SG834	Willsbridge Nursery, off Keynsham Road (A4175), Willsbridge	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	+	--	0	0	0	?+	0
SG835	Former Silverhill School, Swan Lane, Winterbourne, Bristol BS36 1RL	?	?	++	0	0	++	+	+	++	++	+	+	0	0	--	--	--	-	0	0	+	--	0	--	0	?+	-
SG836	Land off Chapel Lane, Old Sodbury	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0
SG838	Land Adjoining The Lodge, Gloucester Road, Thornbury, BS35 3TU	?	?	++	--	0	+	+	+	--	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0
SG839	Land at the rear of Esperanza, Blackhorse Hill, Easter Compton, South Gloucestershire, BS35 5PR	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	0
SG840	Land to rear of 60 Westerleigh Road, Pucklechurch, Bristol	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	0
SG841	Land to the rear of Home Farm	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	-	--	?--	0	-	0	0	-
SG842	Land at Berrows Mead	?	?	++	0	0	+	+	+	+	--	--	+	0	0	0	0	0	--	0	--	--	?--	0	-	0	0	-
SG846	Land to the East of Court Farm Road	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	-
SG847	Land North of Holbrook Lane	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	-
SG850	Land west of B4061	?	?	?--	--	0	++	+	+	++	--	++	+	0	0	+	--	--	--	-	--	--	--	--	--	0	0	0
SG851	Land to the west of Wotton Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	0	0	-	0	0	--	?--	0	--	0	0	-
SG852	Heneage Farm, Moorslade Lane	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	?--	-	+	?--	0	0	0	?+	0
SG854	Land off Moorslade Lane	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	-	--	?--	0	-	0	0	0
SG855	Land at Dyers Lane	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	?+	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG856	Thornbury Health Centre Eastland Road	?	?	++	0	0	++	+	+	++	++	++	+	0	0	-	0	0	--	0	0	+	-	0	--	0	?+	0
SG857	Downend Clinic Buckingham Gardens	?	?	++	0	0	++	+	+	++	++	++	+	0	0	+	0	0	-	?--	0	+	-	0	--	0	?+	-
SG858	Filton Clinic Shields Avenue	?	?	++	0	0	++	+	+	++	+	+	+	0	0	+	0	0	-	?--	0	+	-	0	--	0	?+	0
SG859	The Plough and Horsehoe Inn Gloucester Road	?	?	++	--	0	++	+	+	++	--	+	+	0	0	++	--	--	-	?--	0	+	-	0	--	0	?+	0
SG860	Land to the rear of the Steadings	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	-
SG861	Bolbrek Filton Road	?	?	++	--	0	+	+	+	++	--	+	++	0	0	++	--	--	--	?--	0	--	?--	0	--	0	0	0
SG862	Boydwick Farm	?	?	++	0	0	++	++	++	+	+	-	+	0	0	-	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG864	Land South of Luckington Road	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	-	?--	0	--	--	0	--	0	0	0
SG865	Land to the North of Tormarton Road	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	?--	0	--	?--	0	--	0	0	-
SG866	Land to the West of Burton Road	?	?	?--	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	?--	0	--	--	0	-	0	0	-
SG867	Land to the South of Sodbury Road	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	0	--	?--	0	-	0	0	0
SG869	Land at Filton Retail Park, Fox Den Road	?	?	++	--	0	+	++	++	++	+	++	++	0	0	++	0	0	--	?--	0	++	?--	0	0	0	?+	0
SG873	Land east of Webbs Heath	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-
SG874	Land at Church Quarry Baden Hill Road	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	+	?--	0	--	0	?+	-
SG875	Land between Tower Hill and Baden Hill Road	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	+	?--	0	--	0	?+	-
SG876	Land South of Almondsbury Garden Centre	?	?	++	0	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	--	?--	0	--	0	0	0
SG877	Exhibition House, North View	?	?	++	--	0	++	+	+	++	+	++	+	0	0	+	0	0	--	?--	0	+	-	0	--	0	?+	-
SG879	Rear of 32 Cleeve Hill	?	?	++	--	0	++	+	+	++	+	++	+	0	0	+	--	--	--	?--	0	+	-	0	--	0	?+	-
SG880	Land to the South of Manor Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	-	0	--	?--	0	--	0	0	-
SG882	Land adjacent to Grey Cottage	?	?	++	0	0	+	+	+	+	+	-	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0
SG883	Land at Lapwing Farm	?	?	++	--	0	+	++	++	+	--	--	+	0	0	--	--	--	-	?--	0	+	?--	0	0	0	?+	-
SG890	Land at The Paddock	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0

Chapter 4 SA Findings for Site Options

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SG893	Land at Crossways	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	-	--	--	--	0	-	0	0	0
SG894	Land at Gloucestershire Road	?	?	+	0	0	+	++	++	--	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	0
SG901	Abson Road Pucklechurch	?	?	++	0	0	++	+	+	+	--	-	+	0	0	+	0	0	--	-	0	--	?--	0	--	0	0	0
SG906	Land Adjacent to 82 Gloucester Road Rudgey BS35 3RS	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	-	+	?--	0	--	0	?+	-
SG908	Land South of Yate Road Yate	?	?	++	--	0	+	+	+	++	--	+	+	0	0	++	0	0	--	-	--	--	-	0	--	0	0	-
SG912	Land east of Chipping Sodbury	?	?	?--	0	0	+	++	++	+	--	+	+	0	0	+	--	--	--	0	--	--	?--	0	-	0	0	0
SG916	Bristol Uniforms Limited 1 Wathen Street	?	?	++	--	--	++	+	+	++	+	++	+	++	0	+	--	--	-	?--	0	+	-	0	--	0	?+	-
SG917	Land at Tytherington	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	0	-	--	--	0	--	0	0	-
SG921	Land adjoining Hambrook Lane & Sturden Lane	?	?	++	--	0	+	++	++	+	--	--	++	0	0	-	--	--	--	-	--	--	-	0	--	0	0	-
SG924	Land off Tockington Lane	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	0
SG927	The Quarters Colony Farm	?	?	?--	--	0	+	++	++	--	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	?+	0
SG928	The Old Vicarage	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	+	?--	0	--	0	?+	-
SG935	BAWA Leisure	?	?	?--	--	0	++	+	+	++	+	+	+	0	0	++	0	0	--	?--	0	--	-	0	-	0	0	0
EPS-SV1	Land South of Gloucester Road, Almondsbury	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	-
EPS-CSCE1	Land between France Lane and Park Street, Hawkesbury Upton	?	++	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	--	-	0	-
EPS-HA1	Land at Castle Farm Road, Hanham	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
EPS-CHAR2	Land at Bristol Road, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
EPS-CHAR3	Land to rear of Ducie Close, Cromhall, GL12 8AH	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	--	0	--	0	0	-
EPS-BV15	Land east of Abson Road, Pucklechurch	?	?	++	0	0	++	++	++	+	--	-	+	0	0	+	--	--	-	-	0	+	-	0	0	0	?+	0
EPS-FC1	Land off Park Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-CHAR6	Land to the south of Charfield	?	?	++	0	0	+	++	++	+	+	-	+	0	0	+	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-FC14	Woodlands Golf Course, Trench Lane, Almondsbury, (Woodlands Garden Village)	?	?	?--	--	0	+	++	++	+	++	-	+	0	0	+	--	--	--	?--	-	++	-	0	0	0	?+	0
EPS-EG2	Land at, Cossham Street, Mangotsfield	?	?	?--	0	0	+	++	++	+	++	-	+	0	0	-	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-FC2	Land adjacent, Westways, Wotton Road, Rangeworthy	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
EPS-BV2	Land to the Rear of, London Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	-	+	-	0	--	0	?+	0
EPS-THOR1	Land off, Alveston Hill, Thornbury	?	?	++	0	0	+	++	++	+	+	-	+	0	0	-	--	--	--	-	--	--	?--	0	--	0	0	-
EPS-BV3	Land at, Shortwood	?	?	?--	--	0	+	++	++	+	+	+	+	0	0	-	0	0	--	?--	--	--	-	0	--	0	0	-
EPS-BV4	Land north of, London Road, Wick	?	?	++	--	0	++	+	+	--	--	-	+	0	0	--	0	0	--	?--	-	--	?--	0	-	0	0	0
EPS-FC3	Land off, Wotton Road, Rangeworthy	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	-	0	--	0	0	-
EPS-SV3	Land at Hortham Lane, Almondsbury, BS32 4JH	?	?	++	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	-
EPS-BV6	Land south of Shortwood Hill, Mangotsfield, BS16 9PF	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-BV12	The Sawmills, Bath Road, Bridge Yate	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	++	-	--	--	0	?+	-
EPS-FC6	Land off Bristol Road	?	?	++	0	0	++	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	-
EPS-EG1	Land at Shortwood	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
EPS-PSB2	Land Between Over Lane and the B4055, Easter Compton	?	?	++	0	0	+	++	++	+	--	--	+	0	0	-	0	0	--	?--	--	--	?--	0	-	0	0	0
EPS-BV7	Land Adjacent to The Homestead, Manor Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	--	+	?--	0	--	0	?+	0
EPS-FC4	Land at 404 North Road, Yate	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	-	0	--	0	0	-
EPS-WIN1	Land to the North of the Railway Line, Winterbourne	?	?	++	0	0	++	+	+	+	+	+	+	0	0	+	0	0	--	0	--	--	?--	0	-	0	0	-
EPS-WIN2	Land at York Gardens, Winterbourne	?	?	?--	0	0	++	+	+	+	--	-	+	0	0	0	0	0	-	-	0	+	-	0	--	0	0	-
EPS-PW1	15 and 17a, London Road, Warmley	?	?	++	--	--	+	+	+	+	+	-	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-THOR2	Land to west of Park Farm	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0
EPS-SV4	Land at Grey Gables, Vicarage Lane, Olveston,	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	0	--	+	--	0	--	0	?+	-
EPS-SV5	Land on the South Side of Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
EPS-FC5	Land at North Road, Yate	?	?	++	--	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	+	?--	0	0	0	?+	-
EPS-CHAR8	Land at Townwell, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
EPS-FC7	Land to rear of 450 North Road, Yate	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-
EPS-BOC2	Land at 12, The Park, Willsbridge BS30 6EE	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	?--	0	0	0	?+	0
EPS-BOC3	Jarretts Garden Centre, Bath Road	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	--	0	0	0	?+	0
EPS-CHAR9	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	0	0	--	?--	0	--	0	0	-
EPS-HA2	Land south of Abbots Road	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
EPS-WIN3	Land west of Winterbourne Hill	?	?	++	0	0	++	++	++	+	+	+	+	0	0	-	0	0	--	0	--	--	--	0	-	0	0	-
EPS-HA3	Land at Castle Inn Farm	?	?	?--	0	0	--	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
EPS-SV6	Land North of A38, Alveston	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	0	--	?--	0	--	0	0	-
EPS-SV7	Land off Gaunts Earthcott Lane	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
EPS-FC8	Land to west of Wotton Road	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
EPS-SV8	Recreation Ground Oaklands Drive, Almondsbury	?	?	++	--	0	++	+	+	+	+	-	+	0	0	+	--	--	--	0	--	+	-	0	0	0	?+	0
EPS-FC9	Field to south of Rock View, Engine Common Lane	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	--	-	0	--	0	0	-
EPS-PSB4	Land off Blackhorse Hill	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-FC10	Land at Berrows Mead	?	?	++	0	0	+	+	+	+	--	--	+	0	0	0	0	0	--	0	--	+	?--	0	-	0	0	-
EPS-THOR3	Land west of B4061	?	?	?--	--	0	++	+	+	++	--	++	+	0	0	++	--	--	--	-	--	--	--	--	--	0	0	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b	
EPS-FC11	Land to the west of Wotton Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	0	0	-	0	0	--	?--	0	--	0	0	0	-
EPS-FC12	Land at Dyers Lane	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	?+	-	
EPS-CSCE5	Land South of Luckington Road	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	0	0	
EPS-PSB5	Land at The Paddock	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0	
EPS-SV9	Land Off Tockington Lane	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	0	
EPS-SV11	The Old Vicarage	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	+	-	0	--	0	?+	-	
EPS-SV12	Land to the North of Berkeley Vale Motors	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-	

Table 4.2: Likely SA effects of the Employment Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG020	Land at Cromhall Quarry	?	?	++	0	0	--	+	+	+	--	--	+	0	++	0	0	0	--	?--	0	++	?--	0	--	0	?+	-
SG035	Oldbury Power Station Site, Oldbury Naite, Thornbury	?	?	+	0	0	--	+	+	--	--	--	+	0	++	0	--	--	--	?--	--	++	-	--	0	0	?+	0
SG060	Woodend Farm, Woodend Lane, Cromhall	?	?	+	0	0	+	+	+	--	--	--	+	0	++	0	--	--	--	?--	0	++	?--	0	--	0	?+	-
SG116	Land of the west side of Carsons Road Warmley	?	?	++	--	0	+	+	+	+	--	-	+	0	+	0	0	0	--	?--	--	--	-	0	-	0	0	-
SG481	Land to the east of the B4055, Pilning Station	?	?	++	--	0	++	+	+	+	+	-	+	0	++	0	--	--	--	-	--	--	?--	0	-	0	0	0
SG735	Viridor Waste Management, North Way, Filton	?	?	++	--	0	++	+	+	++	++	+	+	0	++	0	0	0	-	?--	0	++	-	0	--	0	?+	0
SG764	Brookman's Quarry	?	?	++	0	0	--	+	+	--	--	--	+	0	+	0	0	0	--	?--	0	+	?--	0	--	0	?+	-
SG765	Dunkirk Barn	?	?	+	--	0	+	+	+	--	--	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	-	?+	-
SG776	Land at Rushmoor Dairy, Badminton	?	?	++	0	0	+	+	+	+	--	-	+	0	+	0	--	--	-	?--	0	+	?--	0	--	-	?+	-
SG780	Land on South Side of Central Avenue, Bristol	?	?	+	--	0	+	+	+	-	--	--	+	0	++	0	--	--	--	?--	--	++	-	--	0	0	?+	0
SG870	Plot 9000, Western Approach Business Park, Govier Way	?	?	++	--	0	+	+	+	+	--	--	+	0	++	0	--	--	--	-	--	--	?--	--	-	0	0	0
SG871	Tytherington Quarry, Tytherington Road	?	?	++	--	0	+	+	+	+	--	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	0	?+	-
SG896	Glenfern and Land to East of Carsons Road	?	?	++	0	0	+	+	+	+	--	--	+	0	++	0	0	0	--	?--	--	++	-	0	0	0	?+	-
SG900	Land at Tytherington Quarry Wotton-under Edge Gloucestershire GL12 8UW	?	?	++	0	0	--	+	+	--	--	--	+	0	++	0	--	--	--	?--	--	--	?--	0	--	0	0	-
SG907	Land adjacent to Severn Beach Railway Station	?	?	++	--	0	+	+	+	+	+	-	+	0	+	0	--	--	--	0	--	+	-	--	0	0	?+	0
SG910	Homeapple Close	?	?	++	--	0	+	+	+	-	--	--	+	0	+	0	--	--	-	?--	--	+	?--	0	--	0	?+	0
SG911	Former Brightside Insurance	?	?	++	--	0	--	+	+	+	--	-	+	0	++	0	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG922	The Land at the Old Beer Store High St Badminton GL9 1DG	?	?	++	0	0	+	+	+	+	--	-	+	0	+	0	--	--	--	?--	0	+	?--	--	0	-	?+	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-HAR4	Woodend Farm, Woodend Lane, Cromhall	?	?	+	0	0	+	0	0	--	0	--	+	0	++	0	--	--	--	?--	0	++	?--	0	--	0	?+	-
EPS-PSB3	Land to the east of the B4055, Pilning Station	?	?	++	--	0	++	0	0	+	0	-	+	0	++	0	--	--	--	-	--	--	?--	0	-	0	0	0
EPS-SCE3	Land at Rushmoor Dairy, Badminton	?	?	++	0	0	+	0	0	+	0	-	+	0	+	0	--	--	-	?--	0	+	?--	0	--	-	?+	-
EPS-FC13	Tytherington Quarry, Tytherington Road	?	?	++	0	0	--	0	0	--	0	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	0	?+	-
EPS-BV10	Glenfern and Land to East of Carsons Road	?	?	++	0	0	+	0	0	+	0	--	+	0	++	0	0	0	--	?--	--	++	?--	0	0	0	?+	-
EPS-BV11	Homeapple Close	?	?	++	--	0	+	0	0	-	0	--	+	0	+	0	--	--	-	?--	--	+	?--	0	--	0	?+	0

Table 4.3: Likely SA effects of the Mixed Use Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG005	Land to the north of Warmley, East Fringe	?	?	?--	--	0	+	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG008	West Pucklechurch	?	?	++	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG017	Hicks Common Livery Stables and associated Land	?	?	++	--	0	++	++	++	++	++	+	+	0	0	0	--	--	--	-	--	--	--	0	-	0	0	-
SG019	Land off Charfield Hill, Charfield	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
SG021	Land at Longcross Farm, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	-	0	0	--	?--	0	--	0	0	-
SG025	Land to West of Sodbury Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	-	-	0	--	?--	0	-	0	0	-
SG047	Land to the rear of Park Farm, Barry Road, Oldland Common	?	?	?--	--	0	++	++	++	+	++	-	+	0	0	0	--	--	-	?--	--	--	?--	0	-	0	0	-
SG052	Land at North West Thornbury	?	?	?--	0	0	+	++	++	--	+	--	+	0	0	0	0	0	--	?--	0	--	--	0	--	0	0	0
SG055	Land alongside the B4061 (Old Gloucester Road) and the A38 at Whitfield/Falfield	?	?	+	--	0	+	++	++	--	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG062	Tortworth Garden Village	?	?	?--	--	0	+	++	++	--	+	-	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG064	Land adjacent to The Firs, Crossways Lane, Thornbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	0	0	0	--	-	--	--	--	0	-	0	0	0
SG087	Land at, Catherine Hill, Olveston	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	-	--	--	?--	0	-	0	0	0
SG088	Land at, Shubbery Farm, Shortwood	?	?	++	0	0	+	++	++	--	--	--	+	0	0	0	0	0	-	?--	--	++	?--	0	0	0	?+	0
SG089	Land north of Hackett Lane, Thornbury	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	--	0	-	0	0	0
SG090	Land rear of, Playing Field, Tockington	?	?	?--	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	0	--	--	--	0	--	0	0	-
SG091	Land North of, Forty Acre Lane, Alveston	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	-	0	--	?--	0	-	0	0	-
SG095	Land at East Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	-	0	--	--	?--	0	-	0	0	0
SG096	Land at Vattingstone Lane Alveston	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	0	-	--	?--	0	-	0	0	-
SG098	Land north of Wotton Road, Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG104	Land at Bromley Heath Road, Bromley Heath	?	?	++	--	0	++	++	++	+	--	-	+	0	0	0	--	--	--	-	--	++	--	0	--	0	?+	-
SG110	Land at Roundways Coalpit Heath	?	?	++	0	0	++	++	++	+	+	+	+	0	0	0	--	--	--	?--	-	--	?--	0	-	0	0	-
SG111	Land east and west of Westerleigh Road	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	0	0	-	-	0	--	?--	0	--	0	0	-
SG115	Buckover Garden Village	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	--	0	-	0	0	0
SG121	Land at, Cromhall, South Gloucestershire	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	-	0	--	?--	0	--	0	0	-
SG129	Land off, Engine Common Lane, Yate	?	?	++	--	0	+	++	++	+	++	--	+	0	0	0	0	0	--	-	0	--	-	0	-	0	0	-
SG139	Land between, Brins Close, Field Farm Close and Hunts Ground Rd, Stoke Gifford	?	?	?--	--	0	++	+	+	+	+	-	++	0	0	0	0	0	--	?--	0	--	?--	0	-	0	0	0
SG140	Lower Marlwood Farm, Kington Lane, Thornbury	?	?	?--	0	0	++	++	++	++	--	++	+	0	0	0	--	--	--	?--	--	--	--	0	--	0	0	0
SG150	Jarrocks Estate, Westerleigh Road, Westerleigh	?	?	++	0	0	+	+	+	+	--	--	+	0	0	0	--	--	-	0	0	+	?--	0	--	0	?+	-
SG159	Land at, Wick Quarry, Wick	?	?	++	0	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	-
SG246	Pitt Farm	?	?	?--	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
SG280	Land south of the B4055, Easter Compton	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG328	Land to the East of Badminton Road, North of Lockington Road	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	0	--	?--	0	--	0	0	-
SG346	Land south of Shortwood Hill, Mangotsfield, BS16 9PF	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG350	Land opposite The Fosse, Crossways Lane, Thornbury, BS35 3UE	?	?	++	0	0	+	++	++	--	--	-	+	0	0	0	0	0	--	-	-	--	--	0	-	0	0	0
SG396	Land between Wotton Road and Church Lane, Rangeworthy	?	?	++	0	0	+	+	+	+	+	--	+	0	0	0	--	--	--	0	0	--	--	0	--	0	0	-
SG414	Land on the North East Side of Old Gloucester Road, Hambrook	?	?	++	--	0	+	+	+	+	--	--	++	0	0	0	0	0	--	?--	--	--	?--	0	-	0	0	0
SG426	Land at Park Mill Farm and Quarry Farm, Thornbury	?	?	++	0	0	++	++	++	++	++	++	+	0	0	0	--	--	--	?--	--	--	--	--	--	0	0	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG428	Land at former Kleeneze Site, Ansteys Road, Hanham	?	?	++	--	0	++	++	++	++	++	++	+	0	0	0	0	0	--	?--	0	++	-	0	0	0	?+	-
SG441	Land at Over Court Farmhouse and Outbuildings (Over Court Barns) and Adjoining Land	?	?	++	0	0	+	+	+	--	--	--	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	0
SG442	Land at Jupiter Road, Patchway	?	?	++	--	0	+	++	++	--	--	+	+	0	0	0	0	0	-	?--	0	++	?--	0	--	0	?+	0
SG444	Land at Thornbury	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	0	0	--	?--	--	--	--	0	-	0	0	0
SG459	Land at Westerleigh	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	?+	-
SG474	Land rear of Bath Road	?	?	?--	--	0	++	++	++	+	+	+	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG478	Stover Trading Estate	?	?	++	--	0	+	++	++	++	--	++	+	0	0	0	0	0	--	0	--	++	-	0	--	0	?+	-
SG601	Land at Brook Farm Junction 14	?	?	++	--	0	--	+	+	+	--	-	--	0	0	0	0	0	--	-	--	--	?--	0	-	0	0	0
SG605	Land at Hanham Community Centre	?	?	++	--	0	++	+	+	++	++	++	+	0	0	0	--	--	-	?--	0	+	-	0	0	0	?+	-
SG606	Land at Springfield Lakes, Bath Road-Brewery Hill, Bitton	?	?	++	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	++	--	0	0	0	?+	0
SG703	Land to rear of 91 High Street, Wick, Bristol, BS30 5QQ	?	?	++	--	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	0
SG713	Land to west of Wotton Road, Rangeworthy	?	?	++	0	0	+	++	++	+	+	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-
SG714	Land at Heneage Lane and The Gables, Falfield	?	?	++	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG715	Land at Merry Heaven Farm, Alveston	?	?	?--	--	0	+	++	++	+	--	+	+	0	0	0	--	--	--	-	--	++	?--	0	--	0	?+	-
SG716	Land at Forty Acre Lane, Alveston	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	-	0	--	?--	0	-	0	0	-
SG718	Land at Crossways, Thornbury	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	--	0	-	0	0	0
SG743	Land at Downs Farm and Whistledown Farm,	?	?	?--	0	0	--	++	++	+	+	--	+	0	0	0	--	--	--	?--	--	--	--	0	-	0	0	0
SG746	Land at Pilning Railway Station, Station Road, Pilning BS35 4JW	?	?	++	--	0	+	+	+	+	--	--	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	0
SG754	Land at the University of the West of England	?	?	++	--	0	+	++	++	++	+	++	++	0	0	0	0	0	--	?--	0	--	?--	0	-	0	0	0
SG755	Swanmoor Stoke	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	++	?--	--	--	0	?+	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b	
SG777	Buffer Depot, Acton Turville	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	?--	0	+	--	--	--	-	?+	0	
SG778	Land at Station Road	?	?	++	--	0	+	+	+	+	+	-	+	0	0	0	--	--	--	0	--	--	-	--	-	0	0	0	
SG784	The Hayfields off Cossham Street	?	?	?--	0	0	+	++	++	+	++	-	+	0	0	0	--	--	--	?--	--	++	--	0	--	0	?+	-	
SG787	Land adjoining Spring Farm	?	?	++	0	0	+	++	++	+	+	--	+	0	0	0	--	--	--	-	0	--	--	0	--	0	0	0	
SG788	Badminton Road, Winterbourne	?	?	++	--	0	+	+	+	+	--	-	+	0	0	0	0	0	--	-	--	+	-	0	0	0	?+	-	
SG800	Land South of Mapleridge Lane	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	0	
SG806	Land at Morton Farm	?	?	++	0	0	+	++	++	--	--	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	0	
SG816	Yate Town Centre	?	?	?--	--	0	++	++	++	++	++	++	+	0	0	0	--	--	--	0	--	++	-	0	--	0	?+	-	
SG853	Land North of Moorslade Lane	?	?	++	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	-	--	?--	0	--	0	0	0	
SG868	Lower Shortwood	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	-	
SG872	Barnhill Quarry	?	?	?--	--	0	++	++	++	++	++	++	+	0	0	0	0	0	--	0	0	++	?--	0	--	0	?+	-	
SG878	Leyland Court Equestrian Centre	?	?	++	--	0	--	++	++	+	+	-	+	0	0	0	--	--	--	?--	-	++	?--	0	0	0	?+	0	
SG881	Backfield Farm Business Park	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	0	0	--	-	0	+	?--	0	--	0	?+	-	
SG884	Land to rear of Silverhill School, Winterbourne	?	?	++	0	0	++	++	++	++	+	+	+	0	0	0	--	--	-	-	--	--	--	0	--	0	0	-	
SG885	Site W2, Land off, Bristol Road	?	?	?--	0	0	++	++	++	+	--	+	+	0	0	0	--	--	--	-	0	--	--	0	--	0	0	-	
SG886	Land to north of New Road, Rangeworthy	?	?	?--	0	0	+	++	++	+	+	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-	
SG887	Part of France Lane Farm, Hawkesbury Upton	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	-	?--	--	--	?--	0	-	-	0	-	
SG889	The Grange School,	?	?	?--	--	--	+	++	++	+	++	-	+	0	0	0	--	--	--	?--	-	++	?--	0	0	0	?+	-	
SG892	Land at Hortham Lane, Almondsbury	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-	
SG897	Land north of A420 and south of Goose Green	?	?	?--	--	--	+	++	++	+	+	-	+	0	0	0	0	0	--	?--	--	--	?--	0	-	0	0	-	
SG898	Vilner Farm	?	?	?--	0	0	+	+	+	-	--	+	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-	
SG899	Kings Chase Shopping Centre	?	?	++	--	--	++	0	0	++	0	++	+	0	+	0	0	0	0	-	?--	0	+	-	0	0	0	?+	-

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG913	Land to West of Sodbury Road Wickwar	?	?	?--	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-
SG914	Land at Tanhouse Meadows Yate	?	?	++	0	0	+	++	++	--	--	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-
SG918	Land north-east of Pilning	?	?	++	--	0	++	+	+	+	+	-	+	0	0	0	--	--	--	-	--	--	?--	--	-	0	0	0
SG923	Land to the East of Lymekiln Lane	?	?	+	0	0	--	++	++	--	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
SG925	46 Broad Street	?	?	++	--	--	++	+	+	++	+	++	+	++	0	0	0	0	-	?--	0	+	-	0	--	0	?+	-
SG926	The Quarters Colony Farm	?	?	?--	--	0	+	++	++	--	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	?+	0
SG928	Land to the North of Berkeley Vale Motors	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-
SG929	Land at Swan Lane	?	?	++	0	0	++	+	+	+	+	+	+	0	0	0	--	--	-	-	-	--	--	0	--	0	0	-
EPS-CHAR1	Land at Longcross Farm, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	-	0	0	--	?--	0	--	0	0	-
EPS-BOC1	Land to the rear of Park Farm, Barry Road, Oldland Common	?	?	?--	--	0	++	++	++	+	++	-	+	0	0	0	--	--	-	?--	--	--	?--	0	-	0	0	-
EPS-SV2	Land at Vattingstone Lane Alveston	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	0	-	--	?--	0	--	0	0	-
EPS-CHAR5	Land north of Wotton Road, Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
EPS-CHAR7	Land at, Cromhall, South Gloucestershire	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	-	0	--	?--	0	--	0	0	-
EPS-BV1	Land at, Wick Quarry, Wick	?	?	++	0	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	-	0	0	0	?+	-
EPS-BV5	Pitt Farm	?	?	?--	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-PSB1	Land south of the B4055, Easter Compton	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-CSCE2	Land to the East of Badminton Road, North of Lockington Road	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	0	--	?--	0	--	0	0	-
EPS-BV6	Land south of Shortwood Hill, Mangotsfield, BS16 9PF	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-BV13	Land at Westerleigh	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	+	-
EPS-BV8	Land to rear of 91 High Street, Wick, Bristol, BS30 5QQ	?	?	++	--	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	-	0	0	0	?+	0

Chapter 4 SA Findings for Site Options

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-CSCE4	Buffer Depot, Acton Turville	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	?--	0	+	--	--	--	-	?+	0
EPS-BV9	Lower Shortwood	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	-
EPS-BV14	Land north of A420 and south of Goose Green	?	?	++	--	--	+	++	++	+	+	-	+	0	0	0	0	0	--	?--	--	--	?--	0	-	0	0	-
EPS-SV10	The Quarters Colony Farm	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	0	0	0	-	?--	--	++	?--	0	0	0	?+	0

SA Objective 1a. Contribution to climate change

4.5 At present the level of information required to determine if the location of new development would provide opportunities to link into an existing energy network or district heating is not available for all sites being considered. The potential for a site to promote the use of more sustainable modes of transport and limit the emission of greenhouse gas has been considered through other SA objectives. Therefore, an 'uncertain' effect is recorded for all sites in relation to SA objective 1a: Contributing to climate change.

SA Objective 1b. Adaptation to climate change

4.6 Similarly, the potential for measures which might support climate change adaptation to be incorporated at sites will be addressed through specific site design, which is unknown at this stage. Therefore, an 'uncertain' effect is recorded for all sites in relation to SA objective 1b: Adaptation to climate change.

SA Objective 2a. Public open space

4.7 Generally, most of the site options are within reasonable access to open space, and as such, the majority of site options are likely to have either a significant positive effect (approximately three quarters) or minor positive effect (just under one tenth) in relation to SA objective 2a: Public open space, depending on whether the sites are within 720m of public open space and/or Public Rights of Way. Just under a quarter of sites could have a significant

negative effect, because the site contains a public open space that could be lost to development, reducing quantity, quality and accessibility for the area.

SA Objective 2b. Noise

4.8 Excessive or persistent noise can have a detrimental effect on health and wellbeing, and in South Gloucestershire the total number of noise complaints has been steadily rising over the past decade. Whilst the majority of sites are expected to have negligible effects as they are located further than 100m from existing noise generating uses, just under half of the sites are likely to have significant negative effects in relation to SA objective 2b: Noise as they are located within 100m of noise generating uses e.g. major roads and infrastructure or heavy industry. Residents at these sites could therefore be adversely affected by noise.

SA Objective 2c. Air quality

4.9 Currently, there are two Air Quality Management Areas in effect within South Gloucestershire, one in Staple Hill and the other in the Kingswood-Warmley area. A small minority of sites (under one tenth) are expected to have a significant negative effect in relation to SA Objective 2c: Air quality. This is because they are located within 100m of one of these Air Quality Management Areas (AQMA) and as such could lead to an increase in pollution in those areas as well as an increase in the number of people exposed to existing air pollution. The remaining sites would have negligible effects as they are not within or close to an AQMA.

SA Objective 2d. Access to healthcare facilities

4.10 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. Sites that are close to existing healthcare facilities (i.e. GP surgeries) will ensure that residents have good access to healthcare services. If a number of sites are allocated close to one another, this could lead to existing healthcare facilities becoming overloaded. However, it is also recognised that new development could stimulate the provision of new healthcare facilities, but this cannot be assumed at this stage. Public health will also be influenced by the proximity of sites to open spaces and walking and cycle paths, easy access to which can encourage participation in active outdoor recreation. Just under one quarter of the site options are likely to have a significant positive effect in relation to SA objective 2d: Access to healthcare services as they are within 720m of existing healthcare facilities and within 1.8km of a railway station or 450m of a bus stop. These sites are located within the urban fringes of Bristol which currently have the best access to health care facilities including GPs and dental practices. Around two thirds of the sites, however, are likely to have a minor positive effect as they are within 720m of existing healthcare services and facilities or within 1.8km a railway station or 450m of a bus stop. The remaining sites were found to have a significant negative effect as they are outside of reasonable walking and cycling distance to any health facilities and have relatively poor access to places containing health services and facilities via public transport. These sites are located within the rural areas of South Gloucestershire where access to healthcare facilities is a lot sparser.

SA Objective 3a. Delivery of high quality housing and SA Objective 3b. Delivery of mix of housing

4.11 All residential site options are expected to have positive effects in relation to SA objective 3a: Delivery of high quality housing, due to the nature of the proposed development. Larger sites (provision of more than 100 homes in urban areas or 50 or more in rural areas) will provide opportunities for the development of a larger number of homes and so would have significant positive effects. These account for roughly two fifths of the site options. Smaller sites (provision of less than 100 homes in urban areas or less than 50 in rural areas) were found to have a minor positive effect. These account for just over half of sites. The remaining sites would have negligible effects as they will not deliver residential units - this is the case for all employment site options. The likely effects of the site options on SA objective 3b: Delivery of mix of housing are the same as those described for SA objective 3a: Delivery of high quality housing.

SA Objective 3c. Access to community facilities

4.12 Within South Gloucestershire, there are a number of community facilities of significant value to residents, including 12 libraries and 81 community centres. The effects of sites on this objective will depend on the access that they provide to these existing community facilities, including community centres, libraries, post offices and public houses. Approximately one tenth of sites were found to have a significant positive effect in relation to SA objective 3c: Access to community facilities as they are within 720m of all facilities assessed or within 1.8km of town centres and railway stations, meaning they have good access to places containing community facilities. Most of the sites that perform positively are in close proximity to the urban fringes of Bristol or are within the Market

Towns, all of which contain a number of community facilities. Just over two thirds of sites would have a minor positive effect, as they are within 720m of some, but not all types of community facilities assessed and/or town centres and railway stations. A few sites would have a minor negative effect, as they are beyond 720m from any community facility and railway station or town centre, and just over a tenth of the sites considered would have a significant negative effect as they are beyond 1.8km of any railway stations, town centres and community facilities.

SA Objective 3d. Access to educational facilities

4.13 The effects of residential sites on SA objective 3d: Access to educational facilities will depend on the access that they provide to existing educational facilities, in addition to there being capacity at those schools to accommodate new pupils. New residential development could stimulate the provision of new schools / school places, particularly larger sites, but this cannot be assumed at this stage. Just under one tenth of sites would have a significant positive effect as they are within 450m of a primary school and 900m of a secondary school, whilst approximately one third of sites would have a minor positive effect as they are within 450m of a primary or 900m of a secondary school, but not both. However, the majority (just under two thirds) of the sites would have a significant negative effect as they are not within 450m of a primary school or 900m of a secondary school. The employment site options would all have negligible effects as they are not relevant to the achievement of this objective.

SA Objective 3e. Access to retail

4.14 Sites are expected to be within a reasonable distance to retail and food buying services and facilities, and as such, sites within 720m of supermarkets, local convenience stores, town, district or local centres were found to have a significant positive effect in relation to SA objective 3e: Access to retail. Just

under one tenth of sites would have a minor positive effect, as they are within 720m of two retail and food buying services and facilities. Just under one half of sites would have a minor negative effect as they are within 720m of one retail and food buying service or facility, whilst approximately two fifths of the sites would have a significant negative effect as they are beyond 720m of supermarkets, local convenience stores, town, district or local centre.

SA Objective 3f. Sustainable travel

4.15 The proximity of development sites to sustainable transport links will affect the extent to which people are able to make use of more sustainable and non-car based modes of transport to access services, facilities and job opportunities, however the actual use of sustainable transport modes will depend on people's behaviour. It is possible that new transport links such as bus routes or cycle paths may be provided as part of new developments, particularly at larger sites, but this uncertain at this stage. A small minority of the site options would have a significant positive effect in relation to SA objective 3f: Sustainable travel as they are within 800m of the metro bus network and 1.8km of train station. These sites are also within 450m of other public transport services such as bus stops and active travel routes. These sites are located within the urban fringes of Bristol which has good access to the metro bus network as well as other public transport options. However, almost all of the sites were found to have a minor positive effect on this objective, as they are within 450m of other public transport services such as bus stops and active travel routes. The remaining sites were found to have a significant negative effect as they are beyond 450m of other public transport routes, 800m of a metro bus network stop and 1.8km of a railway station. These sites are located within the rural areas of South Gloucestershire where there are fewer bus stops and other public transport options. In addition, public transport options are more dispersed.

SA Objective 3g. Deprivation

4.16 Whilst South Gloucestershire is a relatively affluent area, there are some smaller pockets of deprivation. The most deprived Lower Super Output Areas (LSOAs) are generally clustered within the urban wards of Staple Hill, Kings Chase, Patchway, Parkwall and Woodstock, though some are in more isolated areas of South Gloucestershire. Site options that fall within more deprived areas can aid with regeneration through residential, employment and mixed-use development and the delivery of supporting infrastructure, however these sites account for a small minority as almost all of the site options are located outside of the most deprived areas in South Gloucestershire and consequently were found to have a negligible effect in relation to SA objective 3g: Deprivation. The very few sites that do fall within areas identified as the most deprived 20% of areas in England were found to have a significant positive effect.

SA Objective 4a. New employment floorspace

4.17 The provision of new employment sites in any location is likely to have a positive effect on SA objective 4a: New employment floorspace by ensuring that new job opportunities are provided to match the expected population growth. Effects will be particularly positive where sites are large as they will result in more job creation. Approximately two thirds of the employment site options were found to have significant positive effects as they are considered significant sites that are larger than 1.0ha, whilst smaller sites less than 1.0ha would have a minor positive effect. These comprise of approximately one third of employment sites. Residential / mixed use sites that do not provide economic development and do not lead to the loss of employment land were found to have negligible effects.

SA Objective 4b. Access to major employment areas

4.18 The location of residential sites will influence the achievement of SA objective 4b: Access to major employment areas by determining how easily residents would be able to access job opportunities in existing employment areas. The effects identified for the sites are dependent on whether they are within 450m of an Enterprise Areas/Zones (EAs/EZs), or Major Employers or Town Centres and/or 1.8km from a train station. Approximately one fifth of the residential site options would have a significant positive effect whilst just over one tenth would have a minor positive effect. These sites are mostly located in close proximity to the Town Centres, the urban fringes of Bristol and the Severnside employment area. Just over one tenth of residential sites would have a minor negative effect as they are within 720m of a Safeguarded Employment Area, Major Employer or Town Centre or within 1.8km of a train station, whilst most residential sites (approximately three fifths) would have a significant negative effect as they are beyond 720m of any employment areas and beyond 1.8km of a train station. The remaining sites proposed for economic development received a negligible effect in relation to this SA objective.

SA Objective 5a. Designated assets

4.19 The NPPF states that the “significance [of a heritage asset] can be harmed or lost through alteration or destruction of the heritage asset or development within its setting”. However, development could also enhance the significance of the asset, provided that the development preserves those elements of the setting that make a positive contribution to or better reveal the significance of the asset. In all cases, effects from a Local Plan site allocation will be subject to a degree of uncertainty as the actual effects on heritage assets will depend on the particular scale, design and layout of the new development and opportunities which may exist to enhance the setting of heritage features, for example where sympathetic development replaces a derelict brownfield site

which is currently having an adverse effect. The effects of site options on this objective were determined by the findings of assessment work carried out by South Gloucestershire Council officers. South Gloucestershire possesses a diverse range of heritage assets including 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.

4.20 Most of the site options (approximately two thirds) were found to have a significant negative effect in relation to SA objective 5a: Designated assets as they have 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. The remaining sites have been assessed as having no potential to have adverse impacts relating to designated heritage assets, and as such, are expected to have negligible effects.

SA Objective 5b. Undesignated assets

4.21 Similarly, to SA objective 5a: Designated assets, the effects of sites were determined by the findings of assessment work carried out by South Gloucestershire Council officers. Most site options (approximately two thirds) were found to have a minor negative effect in relation to SA objective 5b: Undesignated assets as they have been assessed as having the potential to lead to loss of significance of any affected local heritage asset, historic townscape or landscape. The remaining sites have been assessed as having no potential to have adverse impacts relating to undesignated heritage assets and as such are expected to have negligible effects.

SA Objective 5c. Biodiversity

4.22 The Severn Estuary runs along the South Gloucestershire shoreline between Chittening Warth (Avonmouth) and the boundary with Gloucestershire.

It is designated as a Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar site and Site of Special Scientific Interest (SSSI). South Gloucestershire also has 11 Local Nature Reserves, covering a total of over 109 hectares, and 22 SSSIs covering 553 hectares. 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). Sites that are within close proximity of an internationally, nationally or locally designated conservation sites have the potential to affect the biodiversity or geodiversity of those sites/features, e.g. through habitat damage/loss, fragmentation, disturbance to species, air pollution, increased recreation pressure etc. Conversely, there may be opportunities to promote habitat connectivity if new developments include green infrastructure. Therefore, while proximity to designated sites provides an indication of the potential for an adverse effect, appropriate mitigation may avoid adverse effects and may even result in beneficial effects, however this is uncertain at this stage. 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 this strategic level of assessment. This would be determined once more specific proposals are developed and submitted as part of a planning application. As such, sites within 250m of one or more internationally or nationally designated biodiversity or geodiversity sites were found to have a significant negative effect in relation to SA objective 5c: Biodiversity, which account for approximately two fifths of the sites. The remaining sites were found to have a minor negative effect as they are between 250m and 1km of one or more internationally or nationally designated biodiversity or geodiversity sites, within 250m of a locally designated site or within 15m of an area of ancient woodland.

SA Objective 5d. Landscape

4.23 South Gloucestershire has many contrasting landscapes, ranging from the Cotswolds National Landscape (an 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. 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. All development could have some effect depending on the character and sensitivity of the surrounding landscape, however the actual effect will also depend on the design, scale and layout of development within the site, which may help mitigate and / or enhance effects on the existing character. As such, approximately half of the sites were found to have a significant negative effect in relation to SA objective 5d: Landscape as they are not located near any settlements and are in a rural area, although this is uncertain. In addition, sites that are within 500m of the AONB or Ancient Woodland were found to have a significant negative effect. Just under two fifths of the site options would have a minor negative effect as they are located on the edge of a settlement area or on a visually important hillside, although this is uncertain. The remaining sites would have a negligible effect as they are located within a settlement boundary.

SA Objective 5e. Green infrastructure

4.24 2,398ha 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 1,461ha of South Gloucestershire, and 0.14ha of parks and gardens are currently provided per 1,000 residents across the area. Approximately three fifths of sites were found to have a significant negative effect in relation to SA objective 5e: Green infrastructure as they contain land within a strategic Green Infrastructure (GI) corridor, and just under one tenth of sites would have a minor negative effect as they are within 50m of a strategic GI corridor. The remaining sites would have a negligible effect as they are not within or adjacent to a strategic GI corridor.

SA Objective 5f. Promote the conservation and wise use of land

4.25 Development on brownfield land represents a more efficient use of land in comparison to the development of greenfield sites. Approximately one tenth of the site options were found to have a significant positive effect in relation to SA objective 5f: Promote the conservation and wise use of land as they provide opportunity for major development (sites that would provide 100 or more homes or sites of 1.0ha or more for non-residential uses) on land which is previously developed/ brownfield. Similarly, just under one quarter of sites would have a minor positive effect as they provide opportunity for minor development (sites that would provide fewer than 100 homes or sites smaller than 1.0ha for non-residential uses) on and which is partly previously developed land/brownfield. Conversely, approximately two thirds of sites would have a significant negative effect as they would involve development on land which is previously undeveloped/greenfield.

SA Objective 5g. Minimise the loss of productive land

4.26 Similarly, sites are expected to minimise the loss of productive land, especially the best and most versatile agricultural land. Just under one fifth of sites were found to have a significant negative effect in relation to SA objective 5g: Minimise the loss of productive land as they contain a significant proportion ($\geq 25\%$) of Grade 1 and/or 2 agricultural land. Although approximately another two thirds of sites also would have a significant negative effect, this effect is uncertain as these sites contain a significant proportion ($\geq 25\%$) of Grade 3 agricultural land and it may be either Grade 3a (high quality) or 3b (not classed as high quality). The remaining sites would have a minor negative effect as they are mainly or entirely greenfield sites that contain a less than significant proportion ($< 25\%$) of Grade 1, 2, or 3 agricultural land.

SA Objective 5h. Tidal/fluvial flood risk

4.27 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 particularly within the west of South Gloucestershire display a high risk of fluvial flooding. Around one tenth of the site options would have a significant negative effect in relation to SA objective 5h: Tidal/fluvial flood risk as they are located entirely or significantly ($\geq 25\%$) within flood zones 3a or 3b. The remaining sites would have a negligible effect as they are outside of flood zones 3a or 3b.

SA Objective 5i. Surface water flood risk

4.28 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 the greatest risk of surface water flooding. Just over one half of sites would have a significant negative effect in relation to SA objective 5i: Surface water flood risk as they are located mostly ($\geq 25\%$) within identified areas at high risk from surface water or ground water flooding. Additionally, around one third of the sites are located on greenfield land which has potential to increase surface water flood risk. As such, these sites would have a minor negative effect. The remaining sites are on brownfield land outside areas at risk from surface water or ground water flooding.

SA Objective 5j. Water resources

4.29 Sites are expected to minimise harm to, and where possible protect and enhance (surface and groundwater) water quality and quantity/availability. As such, a very small minority of sites were found to have a minor negative effect

in relation to SA objective 5j. Water resources as they are located partially ($\geq 25\%$) or entirely within a Source Protection Zone. The remaining sites would have a negligible effect as they are located outside of a Source Protection Zone.

SA Objective 6a. Reduce waste

4.30 The effects of development on waste generation will depend largely on residents' behaviour. However, where development takes place on previously developed land there may be opportunities to reuse onsite buildings and materials, thereby reducing waste generation. For this reason, approximately one third of sites would have a minor positive effect in relation to SA objective 6a. Reduce waste as they are located mainly or entirely on brownfield land which may provide opportunities to reuse and recycle buildings and materials onsite as well as demolition waste. The remaining sites would have a negligible effect as they are unlikely to provide opportunities to reuse and recycle buildings and materials onsite as well as demolition waste.

SA Objective 6b. Minimise consumption and extraction of minerals

4.31 South Gloucestershire has a long history of mineral working. Today, mineral activity is dominated by working of the Carboniferous Limestone from a small number of quarries across South Gloucestershire. Whilst it is noted that all new development will result in the increased consumption of minerals for construction, this will not be influenced by the location of the development. Instead, the location of sites can influence the efficient use of minerals as development in Minerals Safeguarding Areas may sterilise mineral resources and restrict the availability of resources in South Gloucestershire. Approximately one third of sites were found to have a minor negative effect in relation to SA objective 6b: Minimise consumption and extraction of minerals as they are

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located within a Minerals Safeguarding Area. The remaining sites would have a negligible effect as they are located outside of a Minerals Safeguarding Area.

Chapter 5

SA Findings for the Growth Lenses

5.1 This chapter presents the SA findings for the three alternative growth lenses that are presented in the Local Plan Phase 3 consultation document 'Towards a Preferred Strategy' (December 2023). The three lenses look at alternative ways of meeting the housing needs for South Gloucestershire as established by the government's standard method over the period 2025 to 2040. The Council considers that there are no circumstances that justify delivering a higher or lower amount of housing than the standard method figure. At this stage the Local Plan is not seeking to deliver housing to contribute to Bristol City's unmet need as explained at section 3a of the Plan.

5.2 Each of the growth lenses contains a set of sites that could be developed under each lens. As stated in Chapter 4 above the initial number of sites appraised was 393, each of which was also assessed through the Housing and Economic Land Availability Assessment (HELAA) process to understand the site's potential capacity and suitability for potential allocation through the Local Plan. Sites that were assessed as unsuitable, unavailable, and unachievable, were considered to be undeliverable/undevelopable and were not considered at the next stage to inform generation of reasonable alternatives. The sites that passed the HELAA were then considered against emerging objectives to inform three strategic scale reasonable alternatives (lenses). Three lenses were investigated which considered national planning objectives and local council objectives: No Green Belt Loss, Urban Edge development and Transport Corridors and Hubs, all of which are appraised below. The pool of sites at this stage both informed and were informed by the generation of the alternative growth lenses. Sites at certain locations were discounted for the following reasons:

- Sites that were located at villages and settlements which had already been assessed as unsuitable for growth through a local plan led strategy approach in the Phase 2 consultation document, within the Creating Sustainable Villages and Settlements chapter, were discounted. These

were villages that were considered unsustainable due to a lack of services and facilities within the community and/or a lack of public transport, walking or cycling connections to sustainability and within reasonable distance access adjacent higher order settlements or the urban edge.

- Similarly, sites which were considered remote from existing settlements, but which were not of a scale to create new sustainable or self-contained settlements were also excluded. This was considered appropriate to avoid creation of new smaller scale villages and hamlets which would be car dependent, reliant on council funding to provide any infrastructure, future school or public transport routes and infrastructure.
- Site SG912 East of Chipping Sodbury was included in growth lens 1 even though it did not pass the HELAA assessment. This was a later addition to lens 1 as it was shown that lens 1 did not have enough sites to meet the housing need with HELAA sites that passed. This was flagged within the No Green Belt Chapter and the potential negative heritage impacts of the site are flagged and recognised in the lens. In addition, at the time of undertaking work to generate the lenses, there was a planning appeal process on a site in Wickwar (SG025). Although this site did not ultimately pass HELAA due to a range of constraints impacting suitability, at the time of generating reasonable alternatives, it was included in lens 1.

5.3 The growth lenses are as follows:

- 1: No Green Belt loss – The focus of this lens is to maintain the current extent of the Green Belt by allocating development within and around the Market Towns, rural areas and through new settlements.
- 2: Urban edge – The focus of this lens is to allocate new jobs and homes within areas that surround the main urban areas, namely, the north and east fringes of Bristol and the Severnside employment area.
- 3: Transport corridors and rail hubs – The focus of this lens is to allocate the majority of new homes along established key public transport routes and hubs.

5.4 The SA findings for the growth lenses are presented in Table 5.1 and the SA findings for the sites included in each lens are presented in Tables 5.2, 5.3 and 5.4.

Table 5.1: Summary of SA findings for the Growth Lenses

SA Objective	Growth Lens 1 – No Green Belt Loss	Growth Lens 2 – Urban Edge	Growth Lens 3 – Transport Corridors
1a. Contributing 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. Sustainable travel	--/+	++/-	+/-
3g. Deprivation	++?	++?	++?
3h. Digital connectivity	++	+/-	+
4a. New employment floorspace	+/-	+	+/-
4b. Access to major employment areas	+/-	+	+/-
5a/5b. Historic environment	-?	-?	-?
5c. Biodiversity	-?	+/-?	-?

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SA Objective	Growth Lens 1 – No Green Belt Loss	Growth Lens 2 – Urban Edge	Growth Lens 3 – Transport Corridors
5d. Landscape	-?	-?	-?
5e. Green infrastructure	-?	-?	-?
5f/5g. Land use	--?	--?	--?
5h/5i. Flood risk	-?	--?	-?
5j. Water resources	-?	-?	-?
6a/6b. Waste and resources	0	0	0

Table 5.2: Lens 1 sites

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG019	Land off Charfield Hill, Charfield	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
SG021	Land at Longcross Farm, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	-	0	0	--	?--	0	--	0	0	-
SG022	Land between France Lane and Park Street, Hawkesbury Upton	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	--	-	0	-
SG025	Land to West of Sodbury Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	-	-	0	--	?--	0	-	0	0	-
SG036	Land at Windmill Farm, Sodbury Road, Wickwar	?	?	++	0	0	+	+	+	+	--	--	+	0	0	+	0	0	-	-	0	--	?--	0	--	0	0	0
SG055	Land alongside the B4061 (Old Gloucester Road) and the A38 at Whitfield/Falfield	?	?	+	--	0	+	++	++	--	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG057	Land at Bristol Road, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG059	Land to rear of Ducie Close, Cromhall, GL12 8AH	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG060	Woodend Farm, Woodend Lane, Cromhall	?	?	+	0	0	+	+	+	--	--	--	+	0	++	0	--	--	--	?--	0	++	?--	0	--	0	?+	-
SG065	Land at Barnhill, Chipping Sodbury	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	+	0	0	--	-	0	++	?--	0	--	0	?+	-
SG098	Land north of Wotton Road, Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
SG107	Land off Park Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	-
SG108	The Ridings, Wickwar Road, Chipping Sodbury	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	+	0	0	--	-	0	--	?--	0	-	0	0	-
SG113	Land to the south of Charfield	?	?	++	0	0	+	++	++	+	+	-	+	0	0	+	--	--	--	--	--	--	?--	0	-	0	0	0
SG115	Buckover Garden Village	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG121	Land at, Cromhall, South Gloucestershire	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	-	0	--	?--	0	--	0	0	-
SG158	Land adjacent, Westways, Wotton Road, Rangeworthy	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG179	Land adjacent, The Bungalow, Cutts Heath	?	?	++	0	0	--	+	+	--	--	--	+	0	0	--	0	0	-	?--	--	+	?--	0	--	0	?+	0
SG228	Land off, Wotton Road, Rangeworthy	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
SG323	Stable Folly, Stowell Hill Road, Tytherington	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	+	?--	0	--	0	?+	-
SG328	Land to the East of Badminton Road, North of Lockington Road	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	0	--	?--	0	--	0	0	-
SG405	Land at Pool Farm, Whitfield, Wotton Under Edge	?	?	+	--	0	+	+	+	--	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	0
SG409	Land to the west of Stowell Hill Road, Tytherington	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	-
SG601	Land at Brook Farm Junction 14	?	?	++	--	0	--	+	+	+	--	-	--	0	0	0	0	0	--	-	--	--	?--	0	-	0	0	0
SG620	Land to west of Park Farm	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0
SG705	Land to the north of The Old Rectory, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0
SG714	Land at Heneage Lane and The Gables, Falfield	?	?	++	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG717	Land off Midland Way, Thornbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	+	0	0	-	?--	--	--	--	0	--	0	0	0
SG731	Land at Townwell, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
SG732	Land to rear of 450 North Road, Yate	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	+	-	0	--	0	?+	-
SG739	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	?--	0	--	?--	0	-	0	0	-
SG740	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	0	0	--	?--	0	--	0	0	-
SG741	Land to North of New Street, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	+	--	--	--	0	--	--	?--	0	-	0	0	0
SG742	Land adjacent to north of Heath End Garage	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	-
SG756	Land west of Sodbury Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	+	--	--	-	0	--	--	?--	0	--	0	0	0
SG757	Land south of Wickwar Road, Rangeworthy	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	--	--	--	-	-	--	?--	0	--	0	0	-
SG765	Dunkirk Barn	?	?	+	--	0	+	+	+	--	--	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	-	?+	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG772	The Old Windmill, Falfield (Parcel A)	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0
SG773	The Old Windmill, Falfield (Parcel B)	?	?	++	--	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	0
SG776	Land at Rushmoor Dairy, Badminton	?	?	++	0	0	+	+	+	+	--	-	+	0	+	0	--	--	-	?--	0	+	?--	0	--	-	?+	-
SG777	Buffer Depot, Acton Turville	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	?--	0	+	--	--	--	-	?+	0
SG787	Land adjoining Spring Farm	?	?	++	0	0	+	++	++	+	+	--	+	0	0	0	--	--	--	-	0	--	--	0	--	0	0	0
SG801	Land off North Road, Yate BS37 7LJ	?	?	++	0	0	+	+	+	+	--	--	+	0	0	-	0	0	--	-	0	--	?--	0	-	0	0	-
SG817	Land to west of Wotton Road	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
SG823	Field to south of Rock View, Engine Common Lane	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	--	?--	0	--	0	0	-
SG829	Land east of Inglestone Road/ Alexander Hosea School, Wickwar, South Gloucestershire	?	?	?--	0	0	+	++	++	+	+	--	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	0
SG841	Land to the rear of Home Farm	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	-	--	?--	0	-	0	0	-
SG842	Land at Berrows Mead	?	?	++	0	0	+	+	+	+	--	--	+	0	0	0	0	0	--	0	--	--	?--	0	-	0	0	-
SG851	Land to the west of Wotton Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	0	0	-	0	0	--	?--	0	--	0	0	-
SG853	Land North of Moorslade Lane	?	?	++	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	-	--	?--	0	--	0	0	0
SG864	Land South of Luckington Road	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	-	?--	0	--	--	0	--	0	0	0
SG871	Tytherington Quarry, Tytherington Road	?	?	++	--	0	+	+	+	+	--	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	0	?+	-
SG886	Land to north of New Road, Rangeworthy	?	?	?--	0	0	+	++	++	+	+	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-
SG894	Land at Gloucester Road	?	?	+	0	0	+	++	++	--	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	0
SG912	Land east of Chipping Sodbury	?	?	?--	0	0	+	++	++	+	--	+	+	0	0	+	--	--	--	0	--	--	?--	0	-	0	0	0
SG914	Land at Tanhouse Meadows Yate	?	?	++	0	0	+	++	++	--	--	--	+	0	0	0	--	--	--	-	--	--	?--	0	--	0	0	-
SG917	Land at Tytherington	?	?	++	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	0	-	--	--	0	--	0	0	-

Table 5.3: Lens 2 sites

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG002	Land at, Marsh Farm, East Pucklechurch	?	?	++	0	0	++	++	++	+	+	-	+	0	0	+	--	--	--	-	--	--	?--	0	-	0	0	0
SG004	Land South of Gloucester Road, Almondsbury	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG005	Land to the north of Warmley, East Fringe	?	?	?--	--	0	+	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG008	West Pucklechurch	?	?	++	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG032	Land at Castle Farm Road, Hanham	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
SG047	Land to the rear of Park Farm, Barry Road, Oldland Common	?	?	?--	--	0	++	++	++	+	++	-	+	0	0	0	--	--	-	?--	--	--	?--	0	-	0	0	-
SG070	Land east of Abson Road, Pucklechurch	?	?	++	0	0	++	++	++	+	--	-	+	0	0	+	--	--	-	-	0	+	?--	0	0	0	?+	0
SG088	Land at, Shubbery Farm, Shortwood	?	?	++	0	0	+	++	++	--	--	--	+	0	0	0	0	0	-	?--	--	++	?--	0	0	0	?+	0
SG104	Land at Bromley Heath Road, Bromley Heath	?	?	++	--	0	++	++	++	+	--	-	+	0	0	0	--	--	--	-	--	++	--	0	--	0	?+	-
SG114	Woodlands Golf Course, Trench Lane, Almondsbury, (Woodlands Garden Village)	?	?	?--	--	0	+	++	++	+	++	-	+	0	0	+	--	--	--	?--	-	++	?--	0	0	0	?+	0
SG131	Land at, Cossham Street, Mangotsfield	?	?	?--	0	0	+	++	++	+	++	-	+	0	0	-	--	--	--	?--	--	--	-	0	--	0	0	-
SG209	Land at, Shortwood	?	?	?--	--	0	+	++	++	+	+	+	+	0	0	-	0	0	--	?--	--	--	?--	0	--	0	0	-
SG280	Land south of the B4055, Easter Compton	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
SG346	Land south of Shortwood Hill, Mangotsfield, BS16 9PF	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG372	The Sawmiils, Bath Road, Bridge Yate	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	++	?--	--	--	0	?+	-
SG387	Land at Shortwood	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
SG399	Land at Hambrook Business Park, The Stream, Hambrook	?	?	++	--	0	+	+	+	+	--	-	++	0	0	-	--	--	--	0	--	+	--	--	--	0	?+	-
SG401	Land Between Over Lane and the B4055, Easter Compton	?	?	++	0	0	+	++	++	+	--	--	+	0	0	-	0	0	--	?--	--	--	?--	0	-	0	0	0

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG448	Land at Church Farm, Moorhouse Lane, Hallen	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	-	+	?--	0	--	0	?+	0
SG459	Land at Westerleigh	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	?+	-
SG465	15 and 17a, London Road, Warmley	?	?	++	--	--	+	+	+	+	+	-	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-
SG481	Land to the east of the B4055, Pilning Station	?	?	++	--	0	++	+	+	+	+	-	+	0	++	0	--	--	--	-	--	--	?--	0	-	0	0	0
SG701	Meadow Lodge Farm, The Hollows, Coalpit Heath, BS36 2UX	?	?	++	--	0	+	++	++	+	--	--	+	0	0	+	--	--	--	?--	--	--	?--	0	-	0	0	-
SG708	Hallen Wood Yard, Berwick Lane, Hallen, Bristol, BS10 7RR	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	+	?--	0	--	0	?+	0
SG719	The Meads, Common Mead Lane, Hambrook	?	?	++	--	0	+	+	+	-	--	-	++	0	0	++	--	--	--	?--	--	+	--	0	--	0	?+	0
SG727	Land on the South Side of Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
SG733	South side of 122 Westerleigh Road, Pucklechurch	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	0
SG737	Land at 12, The Park, Willsbridge BS30 6EE	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	?--	0	0	0	?+	0
SG738	Jarretts Garden Centre, Bath Road	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	--	0	0	0	?+	0
SG747	Land between Hallen Road and Moorhouse Lane, Hallen	?	?	++	--	0	+	++	++	+	--	--	+	0	0	--	--	--	--	?--	-	--	?--	0	-	0	0	0
SG749	The Oaks, Filton Road, Hambrook	?	?	?--	--	0	+	++	++	+	--	-	++	0	0	++	--	--	--	?--	--	++	?--	0	0	0	?+	0
SG755	Swanmoor Stoke	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	++	?--	--	--	0	?+	0
SG760	Land south of Abbots Road	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
SG779	Land at Castle Inn Farm	?	?	?--	0	0	--	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
SG786	Land off Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
SG821	Recreation Ground Oaklands Drive, Almondsbury	?	?	++	--	0	++	+	+	+	+	-	+	0	0	+	--	--	--	0	--	+	?--	0	0	0	?+	0
SG825	Land off Blackhorse Hill	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG834	Willsbridge Nursery, off Keynsham Road (A4175), Willsbridge	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	+	--	0	0	0	?+	0
SG840	Land to rear of 60 Westerleigh Road, Pucklechurch, Bristol	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	-	-	0	--	?--	0	--	0	0	0
SG861	Bolbrek Filton Road	?	?	++	--	0	+	+	+	++	--	+	++	0	0	++	--	--	--	?--	0	--	?--	0	--	0	0	0
SG868	Lower Shortwood	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG873	Land east of Webbs Heath	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-
SG890	Land at The Paddock	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0
SG896	Glenfern and Land to East of Carsons Road	?	?	++	0	0	+	+	+	+	--	--	+	0	++	0	0	0	--	?--	--	++	-	0	0	0	?+	-
SG897	Land north of A420 and south of Goose Green	?	?	?--	--	--	+	++	++	+	+	-	+	0	0	0	0	0	--	?--	--	--	?--	0	-	0	0	-
SG901	Abson Road Pucklechurch	?	?	++	0	0	++	+	+	+	--	-	+	0	0	+	0	0	--	-	0	--	?--	0	--	0	0	0
SG910	Homeapple Close	?	?	++	--	0	+	+	+	-	--	--	+	0	+	0	--	--	-	?--	--	+	?--	0	--	0	?+	0
SG924	Land off Tockington Lane	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	0

Table 5.4: Lens 3 sites

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG004	Land South of Gloucester Road, Almondsbury	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	-
SG017	Hicks Common Livery Stables and associated Land	?	?	++	--	0	++	++	++	++	++	+	+	0	0	0	--	--	--	-	--	--	--	0	-	0	0	-
SG019	Land off Charfield Hill, Charfield	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
SG065	Land at Barnhill, Chipping Sodbury	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	+	0	0	--	-	0	++	?--	0	--	0	?+	-
SG068	Land East of Coalpit Heath	?	?	++	--	0	++	++	++	+	--	+	+	0	0	+	--	--	--	0	0	--	?--	0	--	0	0	-
SG083	Land at Rudgeway	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	--	--	--	--	?--	-	--	?--	0	-	0	0	-
SG084	Corner of Forty Acre Lane, Alveston, BS35 3QU	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	-	+	?--	0	0	0	?+	-
SG096	Land at Vattingstone Lane Alveston	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	0	-	--	?--	0	-	0	0	-
SG098	Land north of Wotton Road, Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
SG100	Land at Badminton Road, Yate	?	?	++	--	0	+	++	++	++	--	-	+	0	0	++	--	--	--	-	--	--	--	0	--	0	0	-
SG102	Land at Upper Hazel Farm, Strode Common, Alveston	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
SG108	The Ridings, Wickwar Road, Chipping Sodbury	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	+	0	0	--	-	0	--	?--	0	-	0	0	-
SG110	Land at Roundways Coalpit Heath	?	?	++	0	0	++	++	++	+	+	+	+	0	0	0	--	--	--	?--	-	--	?--	0	-	0	0	-
SG111	Land east and west of Westerleigh Road	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	0	0	-	-	0	--	?--	0	--	0	0	-
SG113	Land to the south of Charfield	?	?	++	0	0	+	++	++	+	+	-	+	0	0	+	--	--	--	--	--	--	?--	0	-	0	0	0
SG134	Land to the South of Hardy Lane and West of Lower Tockington Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	--	--	--	-	-	--	?--	0	--	0	0	-
SG159	Land at, Wick Quarry, Wick	?	?	++	0	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	-
SG172	Land to the Rear of, London Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	-	+	?--	0	--	0	?+	0
SG177	Land off, Alveston Hill, Thornbury	?	?	++	0	0	+	++	++	+	+	-	+	0	0	-	--	--	--	-	--	--	?--	0	--	0	0	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG181	Site W3, Land off, Bristol Road	?	?	++	0	0	++	+	+	++	++	+	+	0	0	--	--	--	-	0	0	--	--	0	--	0	0	-
SG182	Site W2, Land off, Bristol Road	?	?	?--	0	0	++	++	++	+	--	+	+	0	0	--	0	0	-	-	0	--	--	0	--	0	0	-
SG183	Site W1, Land off, Bristol Road	?	?	++	0	0	++	+	+	+	++	+	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
SG212	Land north of, London Road, Wick	?	?	++	--	0	++	+	+	--	--	-	+	0	0	--	0	0	--	?--	-	--	?--	0	-	0	0	0
SG246	Pitt Farm	?	?	?--	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
SG292	Land at Alveston Road, Old Down	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	-
SG295	Cloisters Road, Winterbourne, BS36 1LL	?	?	++	0	0	++	++	++	++	++	+	+	0	0	-	--	--	--	0	0	--	--	0	--	0	0	-
SG320	Abbots Way, Gloucester Rd, Almondsbury	?	?	+	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	-
SG332	Land at Hortham Lane, Almondsbury, BS32 4JH	?	?	++	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	-
SG380	Land off Bristol Road	?	?	++	0	0	++	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	-
SG382	Land at Pool Lodge Farm, Dyers Lane, Iron Acton	?	?	++	0	0	+	++	++	+	--	-	+	0	0	++	--	--	--	-	0	--	?--	0	--	0	0	-
SG397	Land at 4 Harris Barton, Frampton Cotterell	?	?	++	0	0	++	+	+	+	--	--	+	0	0	--	--	--	--	-	--	+	?--	0	0	0	?+	-
SG402	Land at New Farm, 215 Bristol Road, Frampton Cotterell	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	-	0	+	--	0	--	0	?+	-
SG419	Land at 404 North Road, Yate	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	-	0	--	0	0	-
SG437	Land to the North of the Railway Line, Winterbourne	?	?	++	0	0	++	+	+	+	+	+	+	0	0	+	0	0	--	0	--	--	?--	0	-	0	0	-
SG446	Land at York Gardens, Winterbourne	?	?	?--	0	0	++	+	+	+	--	-	+	0	0	0	0	0	-	-	0	+	-	0	--	0	0	-
SG452	Land at Lower Woodhouse Farm, Fernhill, Almondsbury	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	-	--	--	?--	0	-	0	0	0
SG454	Land Adjoining 294 Badminton Road, Coalpit Heath	?	?	++	--	0	+	+	+	+	--	+	+	0	0	-	0	0	-	-	0	--	?--	--	--	0	0	-
SG470	Land at Beech Hill Farm, Westerleigh Road, Yate	?	?	++	--	0	++	++	++	+	--	-	+	0	0	++	--	--	-	0	0	++	?--	0	--	0	?+	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b	
SG477	Stover Bridge, Nibley Gardens, Bridge Road	?	?	++	0	0	+	+	+	+	--	-	+	0	0	++	0	0	--	-	0	--	?--	0	--	0	0	0	-
SG608	Land at Vilner Farm, Thornbury	?	?	?--	--	0	++	++	++	+	--	++	+	0	0	+	--	--	--	?--	--	--	--	0	--	0	0	0	0
SG613	Land on the north side of Badminton Road	?	?	+	--	0	+	++	++	+	--	--	+	0	0	++	--	--	-	-	--	++	?--	0	--	0	?+	-	
SG703	Land to rear of 91 High Street, Wick, Bristol, BS30 5QQ	?	?	++	--	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	?--	0	0	0	?+	0	
SG704	Land south of Yate Road, Yate	?	?	++	0	0	+	++	++	+	--	-	+	0	0	++	--	--	--	-	--	--	?--	0	--	0	0	-	
SG705	Land to the north of The Old Rectory, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	0	
SG707	Land Next To Hill Crest, Nibley Lane, Nibley, Bristol, BS37 5JG	?	?	++	0	0	+	++	++	+	--	-	+	0	0	++	0	0	-	-	--	--	?--	0	--	0	0	-	
SG711	Land at Grey Gables, Vicarage Lane, Olveston	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	--	0	--	0	?+	-	
SG715	Land at Merry Heaven Farm, Alveston	?	?	?--	--	0	+	++	++	+	--	+	+	0	0	0	--	--	--	-	--	++	?--	0	--	0	?+	-	
SG717	Land off Midland Way, Thornbury	?	?	++	0	0	+	+	+	--	--	--	+	0	0	+	0	0	--	?--	--	--	--	0	--	0	0	0	
SG728	Land at North Road, Yate	?	?	++	--	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	+	-	0	0	0	?+	-	
SG729	Land to the east of Bristol Road	?	?	?--	0	0	++	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	--	0	--	0	0	-	
SG732	Land to rear of 450 North Road, Yate	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	+	-	0	--	0	?+	-	
SG741	Land to North of New Street, Charfield	?	?	++	0	0	+	+	+	+	--	-	+	0	0	+	--	--	--	0	--	--	?--	0	-	0	0	0	
SG762	Land west of Winterbourne Hill	?	?	++	0	0	++	++	++	+	+	+	+	0	0	-	0	0	--	0	--	--	--	0	-	0	0	-	
SG769	Land north of Haw Lane, Olveston	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	--	0	-	0	0	-	
SG771	Land north of The Down, Old Down	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	0	0	--	?--	--	--	--	0	--	0	0	-	
SG781	Land North of A38, Alveston	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	?--	0	--	0	0	-	
SG785	Woodhouse Park	?	?	++	--	0	+	++	++	--	--	-	+	0	0	--	--	--	--	?--	--	++	?--	0	0	0	?+	-	
SG789	Land by Aust Road and Elberton Road, Olveston (2)	?	?	?--	0	0	+	+	+	+	+	-	+	0	0	--	--	--	--	-	--	--	?--	0	--	0	0	-	
SG801	Land off North Road, Yate BS37 7LJ	?	?	++	0	0	+	+	+	+	--	--	+	0	0	-	0	0	--	-	0	--	?--	0	-	0	0	-	

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
SG820	Nibley Road Bird Farm, Nibley Lane, Yate BS37 5JG	?	?	++	--	0	+	+	+	+	--	--	+	0	0	++	0	0	-	-	--	--	-	0	--	0	0	-
SG821	Recreation Ground Oaklands Drive, Almondsbury	?	?	++	--	0	++	+	+	+	+	-	+	0	0	+	--	--	--	0	--	+	?--	0	0	0	?+	0
SG823	Field to south of Rock View, Engine Common Lane	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	--	?--	0	--	0	0	-
SG835	Former Silverhill School, Swan Lane, Winterbourne, Bristol BS36 1RL	?	?	++	0	0	++	+	+	++	++	+	+	0	0	--	--	--	-	0	0	+	--	0	--	0	?+	-
SG841	Land to the rear of Home Farm	?	?	?--	0	0	+	++	++	+	--	-	+	0	0	--	--	--	--	-	-	--	?--	0	-	0	0	-
SG850	Land west of B4061	?	?	?--	--	0	++	+	+	++	--	++	+	0	0	+	--	--	--	-	--	--	--	--	--	0	0	0
SG855	Land at Dyers Lane	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	?+	-
SG885	Site W2, Land off, Bristol Road	?	?	?--	0	0	++	++	++	+	--	+	+	0	0	0	--	--	--	-	0	--	--	0	--	0	0	-
SG892	Land at Hortham Lane, Almondsbury	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	-
SG906	Land Adjacent to 82 Gloucester Road Rudgeley BS35 3RS	?	?	++	--	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	-	+	?--	0	--	0	?+	-
SG924	Land off Tockington Lane	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	0
SG926	The Quarters Colony Farm	?	?	?--	--	0	+	++	++	--	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	?+	0
SG927	The Old Vicarage	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	+	?--	0	--	0	?+	-
SG928	Land to the North of Berkeley Vale Motors	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-
SG929	Land at Swan Lane	?	?	++	0	0	++	+	+	+	+	+	+	0	0	0	--	--	-	-	-	--	--	0	--	0	0	-

5.5 New development in any location will generate new demands for energy and, consequently, this will lead to increased greenhouse gas emissions and increased contributions toward climate change. However, the extent of this is dependent on the proposed overall scale of growth and the design of individual developments and is unlikely to be significantly affected by the spatial strategy. Factors determining the impacts of development include the use of climate change mitigation and adaptation measures, such as appropriate building orientation, SuDS, energy efficient and water efficient design and renewable energy infrastructure. The extent to which the growth lenses would result in increased car use, in particular lenses 1 and 3 that may result in longer distance commuting by private car with associated emissions, is considered separately under SA objective 3f: Sustainable travel. All three lenses are therefore considered to have uncertain effects in relation to SA objective 1a: Contributing to climate change and SA objective 1b: Adapting to climate change.

5.6 Designated public open spaces tend to be more heavily concentrated in the urban areas where access to natural and semi-natural open space is more limited. As growth lens 2 focuses development in communities in close proximity to the existing urban area such as the North and East Fringes of Bristol and the Severnside employment area it is expected to have a mixed minor positive and minor negative effect in relation to SA objective 2a: Public open space as development would be located in areas with more readily accessible green space, however demand for development land may place pressure on these designated open spaces. This is reflected in the likely effects of the sites in that lens, including SG131, SG209 and SG280 which fall under lens 2 and have been found to have potential but uncertain significant negative effects in relation to objective 2a.

5.7 Growth lenses 1 and 3 seek to distribute development in a more dispersed pattern, shifting growth away from the urban areas and focusing development across the more rural parts of the plan area. As such, these lenses may place less pressure on public open space in the market towns and rural villages prioritised under these lenses, including Chipping Sodbury, Thornbury and Yate. Development under these lenses does, however, risk placing more

pressure on the public open spaces available, including rural Public Rights of Way, if they are not prioritised and protected within development, however this is uncertain at this stage. An uncertain mixed (minor positive and minor negative) effect is therefore identified for both lenses 1 and 3 in relation to SA objective 2a: Public open space.

5.8 All growth lenses are expected to have a negative effect in relation to SA objective 2b: Noise as some level of increased noise pollution is expected to result from any new form of development, particularly in the short term during the construction phase. The severity of any such noise pollution is dependent on the overall scale of growth and the design of individual developments, as well as the extent of sensitive receptors nearby. As lens 2 seeks to extend development through focussing growth in the greater Bristol urban area, it is likely that new development will be exposed to higher rates of noise pollution. An uncertain significant negative effect is therefore identified. This is reflected in the likely effects identified for the sites in lens 2, including SG708, SG719 and SG747, which have been found to have potential but uncertain significant negative effects in relation to objective 2b. Although lens 1 includes a new settlement at Buckover, in general, lenses 1 and 3 involve a larger number of smaller site allocations, which reduces the reliance on large sites such as urban extensions and new settlements. Such small, more proportionate growth is less likely to generate significant noise pollution and as such, an uncertain minor negative is identified for both lenses.

5.9 The growth lenses could affect SA objective 2c: Air quality and SA objective 3f: Sustainable travel in terms of the extent to which they would result in private car use, as well as the extent to which they may result in development in or near to one of the Air Quality Management Areas (AQMAs) that have been declared in South Gloucestershire. Lens 1 proposes development beyond the Green Belt in the more rural areas of South Gloucestershire around Thornbury and Chipping Sodbury. As this lens has the potential to distribute new development further away from Bristol and the Severnside employment area, both of which provide a large number of services, facilities and job opportunities, it could lead to residents travelling longer distances and relying on the private vehicle. Allowing for a higher level of growth in rural villages including Cromhall, Rangeworthy and Falfield is likely to result in a higher

proportion of new residents relying on private vehicle use on a day-to-day basis thereby increasing traffic congestion. As such, lens 1 is expected to have a mixed (minor positive and significant negative) effect on both SA objectives. Urban extensions as proposed under lens 2 have the potential to place pressure on key arterial routes into Bristol, including critical bottlenecks such as the Willy Wicket Roundabout (noting the A432 bridge is closed long term), along the A4174 ring road and also the M5 Junctions 16 and 17. This could increase congestion should residents choose to use private vehicles without adequate infrastructure in place. It is also noted that development under lens 2 would potentially impact both the Kingswood Warmley AQMA and Staple Hill AQMA, potentially worsening air quality within those areas and exposing new residents to areas of existing poor air quality. However, by focusing growth in close proximity to the urban edge this lens creates potential to encourage more sustainable travel habits by reducing the potential need for travel across the Green Belt and further afield to access jobs and services. It is unlikely that everyone will work in the greater Bristol urban area at the three main centres of employment in the city centre, Avonmouth/Sevenside and the North Fringe area of South Gloucestershire, however, these are still the main employment areas for the region and a significant number of people in South Gloucestershire already commute to them to access jobs. Therefore, it is assumed that this would continue to be the case. Additionally, this lens could provide easier access to sustainable travel links and thereby reduce the number and length of car journeys. New urban extensions may also offer good opportunities to incorporate sustainable transport links as part of the new development. As such lens 2 is expected to have a mixed (significant positive and minor negative) effect on both SA objective 2c: Air quality and SA objective 3f: Sustainable travel. As lens 3 centres development around sustainable transport hubs a positive effect is expected. However, development would be relatively dispersed compared to lens 2, which may mean that car use is more prevalent due to the distances being travelled. In addition, by focussing large amounts of development in and around villages and around transport corridors including the A38 (Woodhouse Down) and A432 (Coalpit Heath and Winterbourne), this may also encourage the use of the private vehicle and impact on the Strategic Road Network. As such, mixed (minor positive and minor negative) effects are expected in relation to lens 3 for both SA objective 2c: Air quality and SA objective 3f: Sustainable travel.

5.10 Due to continued pressure from many infrastructure providers to centralise services and facilities into fewer larger hubs, access to healthcare (SA objective 2d: Access to healthcare services), as well as access to community facilities, education and retail (SA objective 3c/3d/3e: Access to community facilities, education and retail) is more viable in urban areas. As such, focusing new development around the urban edge (lens 2) would likely achieve the greatest levels of access for residents to existing community facilities in more urban areas. This includes land adjacent to the urban north and eastern fringes of Bristol within South Gloucestershire, the employment area at Severnside, as well as a number of smaller villages in the Green Belt that are considered to be in close enough proximity to Bristol to benefit from the services, facilities and job opportunities. Any improvements delivered as part of new development or as a result of an increase in the local population would also be accessible to existing residents. Under lens 2 rural villages are not prioritised for larger scales of growth, and as such, may face difficulty accessing essential healthcare and community facilities which are already often located in less accessible and urban locations. However, due to pressures to centralise services and facilities, development within the urban edges will likely enable as many people as possible to access existing and new services in as convenient a way as possible. As such, a significant positive effect is expected for lens 2. Focussing development at the market towns and more rural settlements (lens 1) would result in a wider distribution of development and so may mean that existing services and facilities, including healthcare facilities, are less likely to become overloaded. This lens would also include the delivery of a significant new settlement at Buckover (sites SG115 and SG055), with a large amount of new local services and facilities. More dispersed development under this lens would also mean that existing healthcare facilities in smaller and rural areas continue to be supported, often where access to healthcare is needed the most, including Charfield (sites SG113 and SG098). However, this lens would not be viable under the current challenges faced when planning for infrastructure. Due to the increasing centralised nature of community infrastructure, local services, services and facilities within easy walking distances of more rural communities are not practically viable or achievable. Lens 3 may be able to support these facilities, by providing sustainable modes of transport to access centralised facilities more readily across the authority. As such, minor positive effects are expected for lens 3, whilst minor negative effects are expected for lens 1.

5.11 Each lens would provide a significant amount of new housing, and as such each lens is expected to have a positive effect in relation to SA objective 3a/3b: Housing. Effects vary however, depending on the number of projected homes the lens can provide. Lens 1 would deliver around 8,280 homes, the lowest projected number out of each lens due to the low scale of growth that the rural settlements are able to accommodate and the lens's restrictive Green Belt priorities. By increasing the level of growth to be delivered by villages and rural settlements, notably Charfield, Falfield and a new settlement (Buckover Garden Village) there is potential to deliver more affordable housing and better infrastructure at these locations. These places are in the north of the district and feature several potential sites that could deliver a large number of homes. This would also help to address the imbalances of housing provision across the rest of the authority whilst reducing development pressures in urban areas. As such lens 1 is expected to have a mixed (minor positive and minor negative) effect. Lens 2 would deliver around 12,750 homes, with large potential sites at Pucklechurch West, north of Lyde Green, and Warmley offering the opportunity for larger urban extensions adjacent to the Bristol East Fringe as well as a number of areas for smaller growth adjacent to the East Fringe at Hanham, Willsbridge, Oldland and Bridgegate. As such, a significant positive effect is expected in relation to lens 2. Lens 3 would deliver around 11,890 homes. This lens would go a long way in providing an appropriate mix of housing across South Gloucestershire's urban and rural areas, including areas along the A432 corridor and transport hubs of Yate and Chipping Sodbury, along Bristol Road and High Street connecting the North Fringe urban area to Winterbourne and Frampton Cotterell and along the key transport corridor of the A38 to Thornbury as well as Charfield and smaller site allocations in rural villages. As such, lens 3 is expected to have a significant positive effect.

5.12 Deprivation is measured across multiple dimensions, including education, employment, health and housing. The deprivation that exists in South Gloucestershire is spread across the authority's urban areas, market towns and rural settlements, and as such, each lens is expected to have a significant positive effect in relation to SA objective 3g: Deprivation as all would deliver at least some new development in areas that are more deprived. This includes areas targeted under lenses 1 and 3 (Thornbury and Yate) and under lens 2 (Mangotsfield and Warmley). These effects are recorded as uncertain, however,

as the effects of new development on levels of deprivation will depend on other factors as well as simply its provision, for example the provision of appropriate community facilities alongside housing to alleviate deprivation, and the design of individual developments.

5.13 Rural areas and more isolated settlements struggle with consistent digital connectivity more than urban areas, and as such lenses that prioritise development in more rural areas across the authority are more likely to provide inclusive access to communities with the greatest need. Improved digital connectivity in rural areas drive productivity growth, deliver safety benefits, and improve the quality of people's lives, and as such, lens 1 is likely to have a significant positive effect and lens 3 is likely to have a minor positive effect in relation to SA objective 3h: Digital connectivity. As lens 2 focuses development around the urban edge where digital connectivity is already higher, it is likely to have a mixed (minor positive and minor negative) effect as this may draw the benefits of new development away from more rural areas where improved digital connectivity is potentially required the most.

5.14 In South Gloucestershire, areas that are safeguarded for economic development and designated enterprise areas tend to be centred around the urban edge. In total, lens 2 would deliver the greatest area of new employment land (44.5ha). By focussing development around larger settlements, particularly Severnside employment area, lens 2 would see greater opportunities for employment in areas that can accommodate higher levels of growth, benefitting residents in proximity to these employment areas. Additionally, this lens could provide easier access to sustainable travel links and thereby reduce the number and length of car journeys. New urban extensions may also offer good opportunities to incorporate sustainable transport links as part of the new development. Conversely, the more dispersed nature of lens 1 would see greater employment opportunities across more rural areas, contributing towards the recognition of the small business sector and rural economy. In total, lens 1 would deliver a medium level of employment land (11ha). This lens may help independent businesses to thrive and boost job opportunities. Larger scale development in these areas may conflict with opportunities for agricultural development, however. Whilst development would be focussed on a broader range of smaller settlements which may offer good opportunities for people in

those locations to access jobs in close proximity, where people need to travel further to and from those sites for work, journeys are more likely to be car dependent. This is less of a concern under lens 3 which, by focussing development along transport corridors, will ensure that more people are able to access jobs in the local area, including via sustainable modes of transport through the increased use of public transport. New residents may also have access to transport links in other locations to access employment opportunities elsewhere. However, lens 3 will deliver the lowest area of new employment land (6.6ha). For these reasons, lenses 1 and 3 are expected to have mixed (minor positive and minor negative) effects whilst lens 2 is expected to have a minor positive effect in relation to SA objective 4a: New employment floorspace and SA objective 4b: Access to major employment areas.

5.15 All new development has the potential to have an impact on the historic environment, both directly affecting assets and indirectly affecting their setting. Some sites, such as SG912 on land east of Chipping Sodbury (under lens 1) and SG096 in Alveston or SG892 in Woodhouse (under lens 3), have been identified as likely to cause harm to several heritage assets which possibly cannot be mitigated sufficiently to outweigh the possible harm. However for most sites, specific effects, including the extent to which new development may enhance the historic environment, will be dependent on the design and layout of specific proposals. Therefore, there is uncertainty attached to the effects identified in relation to SA objective 5a/5b: Historic environment for all lenses. Development across South Gloucestershire could mean that heritage assets in more urban areas of the authority may have the potential to be affected by new built development; however more evenly dispersed development may reduce the concentration of effects in particular areas. Delivering new development at the more isolated and rural settlements in the authority is likely to result in adverse impacts in terms of preserving established character and the setting of local heritage assets, however the amount and type of heritage across each settlement in the rural areas of South Gloucestershire varies, as demonstrated by the dispersed nature of designated Conservation Areas. For these reasons, each of the growth lenses are expected to have minor negative effects, however these are uncertain as it is noted that opportunities may exist for enhancing character and the setting of heritage assets, but this will be largely dependent on the design and layout of specific proposals.

5.16 All new development has potential to have an impact, positive or negative, on South Gloucestershire's biodiversity, green infrastructure and landscapes. However, specific impacts, including the extent to which new development may even enhance these, will be dependent on the design and layout of specific proposals. Therefore, there is particular uncertainty attached to the effects identified for all lenses in relation to SA objective 5c: Biodiversity, SA objective 5d: Landscape and SA objective 5e: Green infrastructure. Lenses 1 and 3 will lead to a more dispersed pattern of development across the authority, reducing the potential for cumulative adverse impacts on biodiversity, green infrastructure and the landscape. With more evenly distributed growth, this also creates the opportunity to achieve biodiversity net gain and green infrastructure implementation from all developments associated with these lenses. A wider distribution of development does potentially mean more areas are affected, however, especially since South Gloucestershire's rural areas contain many natural assets and landscape designations which may be affected. Notably, lenses 1 and 3 designate sites in the Cotswolds AONB, which may cause harm to the character and appearance of the area. Alternatively, it is noted that the priority afforded to the Green Belt under lens 1 may significantly limit the potential for negative landscape impacts, however the main aim of Green Belt is to prevent urban sprawl and keep land open, rather than to promote green infrastructure or biodiversity. For these reasons, lenses 1 and 3 are expected to have minor negative effects with uncertainty. Lens 2 would likely limit negative effects on biodiversity due to efficient land use associated with increased opportunities for brownfield development in urban areas. It is noted that there are also a number of opportunities along the East Fringe for development to create and enhance access from the urban area into the countryside by protecting and connecting existing green infrastructure assets such as woodland and common land. The potential sites at Pucklechurch, Shortwood and Warmley under lens 2 all have the potential to support with the connectivity of local biodiversity. However, denser development within urban areas could result in greater pressures on open green spaces. It is also noted that brownfield sites can still harbour valuable biodiversity that may be impacted due to development. This lens may therefore have a negative effect on the authority's urban green infrastructure network, landscape and biodiversity. As such, lens 2 is expected to have a mixed (minor positive and minor negative) effect with uncertainty.

5.17 Whilst the main built-up areas that would see development under lens 2 are largely classified as Urban under Agricultural Land Classification (ALC) criteria, there is a mixture of agricultural land surrounding the urban areas featured in this lens. Notably, most of the land immediately surrounding areas such as Mangotsfield is Grade 2, with smaller pockets of Grade 1 land towards the north of the area that may be affected by urban growth. This would likely lead to the loss of best and most versatile agricultural land, particularly because lens 2 would rely heavily on urban extension allocations to accommodate large scale growth. Similarly, development focussed at the market towns and more rural areas of the authority under lens 1 may result in a broader distribution of development across the authority when compared to lens 2, and so would therefore result in a greater use of land, although market town development may offer more opportunities for brownfield land use. Whilst more widely distributed development would reduce the pressure on large urban extension allocations, lens 1 would see large scale development in South Gloucestershire's rural areas, which would likely lead to the loss of agricultural land. Under lens 3, some of the highest quality agricultural land in the authority surrounding Winterbourne may be threatened by development along transport corridors. As such, a significant negative effect is expected in relation to SA objective 5f/5g: Land use.

5.18 The scale of development that would come forward under any of the growth lenses would result in an increased demand for water consumption; however it is possible that new development would be designed and built to high standards of efficiency. The broad location of development will not have significant impacts on water availability although more concentrated patterns of development may focus demand in smaller areas, exacerbating potential negative effects. Additionally, given the wider distribution of development that lenses 1 and 3 would involve, there is potential to distribute new development amongst a wider range of settlements, allowing selection from a wider range of sites, which may help to avoid the development of sites at high risk of flooding. These lenses do however direct development to areas at risk of flooding (Flood Zones 2 and 3), including the market towns of Yate, Thornbury and Chipping Sodbury, as such additional development in these areas could increase the risk of flooding and impermeable surfaces. Additionally, all urban areas within South Gloucestershire are designated as areas susceptible to ground water flooding.

Given the more concentrated nature of development that lens 2 would involve, it may be more difficult to focus development in areas with a lower risk of flooding. Lens 2 also focuses residential and economic development in areas that surround the main urban areas and are within the Severnside employment area, which is entirely located within Flood Zone 3. It is noted that the current Avonmouth and Severnside Enterprise Area (ASEA) Ecology Mitigation and Flood Defence Project is designed to provide the appropriate level of protection for less vulnerable uses such as employment; however, it is unclear how a deliverable and funded strategy for protecting new homes, classified as 'vulnerable' to flood risk events would be achieved here. This lens does create greater opportunity for the implementation of SuDs into development, however. Overall, uncertain significant negative effects are expected for growth lens 2, and uncertain minor negative effects are expected for lenses 1 and 3 for SA objective 5h/5i: Flood risk and SA objective 5j: Water resources. As noted, the effects of these lenses on flood risk and water resources will largely depend on the development's specific location, and as such these effects are uncertain.

5.19 New development as part of all growth lenses considered will result in the use of raw materials and the generation of waste, both in construction and operation; however this will not be influenced by the broad spatial distribution of development. Waste management practices are largely dependent on peoples' behaviour and the design of development and as such, all growth lenses would have a negligible effect on SA objective 6a/6b: Waste and resources.

Summary

5.20 The SA of the three growth lenses is high level, and as a result there are a lot of uncertainties attached to the judgements of potential effects. In overall terms, the SA of the growth lenses concluded that lens 2 is likely to prove more sustainable across a range of SA objectives as it would provide development in areas that surround Bristol and the Severnside employment area. It generally provides good access to services, facilities, jobs and transport links, with shorter journeys making sustainable transport use more realistically likely. It would also reduce the need to develop the more rural areas of South Gloucestershire,

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these being generally of higher landscape and biodiversity value. However, it is worth noting that the sites that fall under each lens could perform well on their own.

Chapter 6

SA Findings for the Phase 3 Local Plan

6.1 This chapter presents the SA findings for the Local Plan objectives, emerging preferred strategy, and the policies presented in the Local Plan Phase 3 consultation document (December 2023). The SA findings for the policies have been presented to follow the order in which they appear in the Local Plan 2023 Phase 3 consultation document. The content of the document and the elements that are appropriate for SA were described in Chapter 1 of this SA Report.

6.2 Following the description of the expected sustainability effects for the policy options, a few recommendations for the next stage of the Local Plan have been identified to help strengthen the positive effects and mitigate the negative effects expected.

6.3 It is a requirement of the SEA Regulations to consider cumulative effects. As such, the sustainability effects of the Local Plan Phase 3 consultation document as a whole are considered below the assessment of the Local Plan policies.

Local Plan Objectives

6.4 Table 6.1 presents a summary of the SA findings for the Local Plan objectives.

Table 6.1: Summary of SA findings for the Local Plan Objectives

SA Objective	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6
1a. Contributing to climate change	0	0	++	+	+	+
1b. Adaptation to climate change	0	0	++	+	0	+
2a. Public open space	0	0	+	0	0	+
2b. Noise	0	0	0	0	0	0
2c. Air quality	0	0	0	0	0	0
2d. Access to healthcare services	0	+	0	0	0	0
3a/3b. Housing	++	0	0	+	0	0
3c/3d/3e. Access to community facilities, education and retail	0	+	0	0	+	+
3f. Sustainable travel	0	++	0	0	+	+
3g. Deprivation	0	0	0	0	0	0
3h. Digital connectivity	0	0	0	0	0	+
4a. New employment floorspace	0	0	0	0	++	0

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SA Objective	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6
4b. Access to major employment areas	0	+	0	0	++	0
5a/5b. Historic environment	-	0	+	+	-	0
5c. Biodiversity	-	0	++	0	-	0
5d. Landscape	-	0	+	+	-	+
5e. Green infrastructure	-	0	+	+	-	0
5f/5g. Land use	+	0	+	+	-	0
5h/5i. Flood risk	-	0	+	0	-	0
5j. Water resources	-	0	0	0	0	0
6a/6b. Waste and resources	0	0	0	0	0	0

Objective 1 – New homes for all communities

6.5 Objective 1 seeks to ensure that everyone has access to a decent, safe and sustainable home by allocating sites to deliver a sufficient supply of high-quality homes, including affordable and specialised homes of different sizes, types and tenures. The objective also seeks to maintain a rolling 5 year supply of housing. As such, a significant positive effect is expected in relation to SA objective 3a/3b: Housing.

6.6 Objective 1 also seeks to make effective use of land by optimising density in sustainable and appropriate locations. As such, a minor positive effect is expected in relation to SA objective 5f/5g: Land use.

6.7 Minor negative effects are expected in relation to SA objective 5a/5b: Historic environment, SA objective 5c: Biodiversity, SA objective 5d: Landscape, SA objective 5e: Green infrastructure, SA objective 5h/5i: Flood risk and SA objective 5j: Water resources as additional housing development could have adverse impacts on local habitats, heritage assets, local landscape and their settings and the availability of water depending on the scale and location of development. Additionally, the increase in impermeable surfaces could increase the risk of flooding.

Objective 2 – Travel and transport

6.8 Objective 2 seeks to allocate new homes in places where employment, key services and facilities are easily accessed by sustainable modes of transport or where these are capable of being provided as part of the new development. The objective further states that development should support the future vitality of villages and settlements as well as existing services and facilities, in particular rural primary schools. As such, minor positive effects are expected 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. The objective also seeks to enable more active lifestyles, minimise the need to travel and, where travel is necessary, decarbonise it by designing new development and infrastructure to make it easier and safer to walk cycle, wheel and use public transport. As such, a significant positive effect is expected in relation to SA objective 3f: Sustainable travel.

Objective 3 – Climate, nature and heritage

6.9 Objective 3 seeks to increase resilience to climate change impacts and threats, including buildings, infrastructure, and the natural environment as well as recognise the impact of locational decisions on both the causes and consequences of climate change, including risk of flooding. It also aims to work to achieve net zero by significantly increasing renewable and low-carbon energy generation including through community energy projects. As such, a significant positive effect is expected in relation to SA objective 1a: Contributing to climate change and SA objective 1b: Adaptation to climate change and a minor positive effect is expected in relation to SA objective 5h/5i. Flood risk.

6.10 Objective 3 also seeks to protect and enhance the character, distinctiveness, quality and intrinsic features of the natural and historic environment. This includes establishing, maintaining and enhancing the function and connectivity of green infrastructure and Nature Recovery Networks, achieving at least 10% biodiversity net gain in new developments and protecting existing trees and increasing tree cover through new tree-planting. As such, a significant positive effect is expected in relation to SA objective 5c: Biodiversity and a minor positive effect is expected for SA objective 5a/5b: Historic environment, SA objective 5d: Landscape and SA objective 5e: Green infrastructure. The objective also seeks to ensure access to high quality green infrastructure, nature rich habitat and open spaces and as such a minor positive effect is also expected in relation to SA objective 2a: Public open space.

Objective 4 – Design and place-making

6.11 Objective 4 seeks to require zero carbon, energy-efficient building design and construction and support retrofitting to reduce energy bills, decarbonise heating and adapt to climate change. Not only will this contribute to climate resilience but will also contribute towards higher quality housing across South Gloucestershire. In addition, objective 4 seeks to ensure new homes provide high quality private outdoor space and internal layouts, with positive residential amenity, including suitably sized new homes. As such, a minor positive effect is expected in relation to SA objective 1a: Contributing to climate change, SA objective 1b: Adaptation to climate change and SA objective 3a/3b: Housing. Objective 4 also seeks to optimise the quality, density and range of uses in all new development, with higher density in the most accessible locations. Higher density development will ensure the best use of space, and as such, a minor positive effect is expected in relation to SA objective 5f/5g: Land use.

6.12 Objective 4 seeks to create a positive sense of place by responding to key natural, built, historic and landscape assets and character of both the local landscape and townscape to create high-quality developments. As such, a minor positive effect is expected in relation to SA objective 5a/5b: Historic environment and SA objective 5d: Landscape.

6.13 Objective 4 also aims to create an attractive public realm, including the provision of new tree lined streets. As such, a minor positive effect is expected in relation to SA objective 5e: Green infrastructure.

Objective 5 – Jobs and businesses

6.14 Objective 5 seeks to support a 'green' economic recovery through the growth of green technology and businesses which contribute to carbon reduction. This will contribute towards South Gloucestershire's goal of being carbon neutral by 2030, and as such, is likely to have a minor positive effect in relation to SA objective 1a: Contributing to climate change.

6.15 Objective 5 recognises the need for more employment opportunities in the communities of the Bristol East Fringe urban area which would provide the economic and environmental benefits of avoiding long distance commuting by providing more readily accessible employment opportunities. It further seeks to plan for the employment land required to meet evidence-based need on existing and new sites and ensure safeguarded employment areas are flexible and attractive to accommodate businesses of all sizes. As such a significant positive effect is expected in relation to SA objective 4a: New employment floorspace and SA objective 4b: Access to major employment areas whilst a minor positive effect is expected in relation to SA objective 3f: Sustainable travel and SA objective 5f/5g. Land use.

6.16 Objective 5 seeks to rethink town centres and high streets, in terms of what they offer and how they operate, delivering local regeneration which contributes to positive and inclusive development and change. This may provide greater opportunity for greater town centre accessibility and encourage more footfall. As such, a minor positive effect is expected in relation to SA objective 3c/3d/3e: Access to community facilities, education and retail.

6.17 Minor negative effects are expected in relation to SA objectives 5a/5b: Historic environment, SA objective 5c: Biodiversity, SA objective 5d: Landscape, SA objective 5e: Green infrastructure and SA objective 5h/5i: Flood risk as additional housing development could have adverse impacts on local habitats, heritage assets, local landscape and their settings depending on the scale and location of development. Additionally, the increase in impermeable surfaces could increase the risk of flooding.

Objective 6 – Deliverability and viability

6.18 Objective 6 seeks to safeguard land for infrastructure and renewable energy where necessary, contributing towards energy efficiency and a reduction of greenhouse gas emissions. Similarly, the objective seeks to ensure that new development enables and supports the long-term success and sustainability of schools, sports, community infrastructure and public open spaces and areas

identified for biodiversity net gain, which will contribute towards South Gloucestershire's adaptation to climate change and make provision for key services and open spaces whilst boosting biodiversity. As such, a minor positive effect in relation to SA objective 1a: Contributing to climate change, SA objective 1b: Adaptation to climate change, SA objective 2a: Public open space, SA objective 3c/3d/3e: Access to community facilities, education and retail and SA objective 5c: Biodiversity.

6.19 Objective 6 also seeks to build on and enhance digital connectivity across the area, and as such, is expected to receive a minor positive effect in relation to SA objective 3h: Digital connectivity.

6.20 Objective 6 seeks to ensure that infrastructure for alternative-fuel vehicles should be available in new developments, encouraging a shift towards more sustainable vehicle choices. As such, a minor positive effect is expected in relation to SA objective 3f: Sustainable travel. Additionally, this objective aims to direct development to those locations well-served or capable of being well served by existing utilities and infrastructure, which will ensure the best utilisation of land development. As such, a minor positive effect is expected in relation to SA objective 5f/5g: Land use.

Emerging Preferred Strategy

6.21 Table 6.2 below sets out the SA findings for the Emerging Preferred Strategy (EPS) within the Phase 3 Local Plan and Table 6.3 presents the SA findings for the sites that would form part of the EPS. The EPS incorporates sites and geographical patterns from each of the growth lenses so as to create the most sustainable spatial strategy for the area. The strengths and weaknesses of the lenses and the sites that fall underneath them were considered. Consideration was given to each of the lens's performance against the SA objectives, national planning objectives and local objectives set out in the Local Plan. From this the Council then put together the Emerging Preferred Strategy which has sought to minimise the weaknesses and maximise the strengths identified.

Table 6.2: Summary of SA findings for Emerging Preferred Strategy

SA Objective	Emerging Preferred Strategy (EPS)
1a. Contributing 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. Sustainable travel	++/-
3g. Deprivation	++?
3h. 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	--

SA Objective	Emerging Preferred Strategy (EPS)
5h/5i. Flood risk	--?
5j. Water resources	--?
6a/6b. Waste and resources	0

Table 6.3: EPS sites

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-SV1	Land South of Gloucester Road, Almondsbury	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	+	--	--	--	?--	--	++	?--	0	0	0	?+	-
EPS-CHAR1	Land at Longcross Farm, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	-	0	0	--	?--	0	--	0	0	-
EPS-CSCE1	Land between France Lane and Park Street, Hawkesbury Upton	?	++	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	?--	--	--	?--	0	--	-	0	-
EPS-HA1	Land at Castle Farm Road, Hanham	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	-
EPS-BOC1	Land to the rear of Park Farm, Barry Road, Oldland Common	?	?	?--	--	0	++	++	++	+	++	-	+	0	0	0	--	--	-	?--	--	--	?--	0	-	0	0	-
EPS-CHAR2	Land at Bristol Road, Cromhall	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	?--	0	--	0	0	-
EPS-CHAR3	Land to rear of Ducie Close, Cromhall, GL12 8AH	?	?	++	0	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	--	--	--	0	--	0	0	-
EPS-CHAR4	Woodend Farm, Woodend Lane, Cromhall	?	?	+	0	0	+	0	0	--	0	--	+	0	++	0	--	--	--	?--	0	++	?--	0	--	0	?+	-
EPS-BV15	Land east of Abson Road, Pucklechurch	?	?	++	0	0	++	++	++	+	--	-	+	0	0	+	--	--	-	-	0	+	-	0	0	0	?+	0
EPS-SV2	Land at Vattingstone Lane Alveston	?	?	++	0	0	+	++	++	+	+	-	+	0	0	0	--	--	--	0	-	--	?--	0	--	0	0	-
EPS-CHAR5	Land north of Wotton Road, Charfield	?	?	++	0	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	0
EPS-FC1	Land off Park Road	?	?	++	0	0	+	++	++	+	--	--	+	0	0	--	0	0	--	?--	--	--	?--	0	--	0	0	0
EPS-CHAR6	Land to the south of Charfield	?	?	++	0	0	+	++	++	+	+	-	+	0	0	+	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-FC14	Woodlands Golf Course, Trench Lane, Almondsbury, (Woodlands Garden Village)	?	?	?--	--	0	+	++	++	+	++	-	+	0	0	+	--	--	--	?--	-	++	-	0	0	0	?+	0
EPS-CHAR7	Land at, Cromhall, South Gloucestershire	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	-	0	--	?--	0	--	0	0	-
EPS-EG2	Land at, Cossham Street, Mangotsfield	?	?	?--	0	0	+	++	++	+	++	-	+	0	0	-	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-FC2	Land adjacent, Westways, Wotton Road, Rangeworthy	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-BV1	Land at, Wick Quarry, Wick	?	?	++	0	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	-	0	0	0	?+	-
EPS-BV2	Land to the Rear of, London Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	-	+	-	0	--	0	?+	0
EPS-THOR1	Land off, Alveston Hill, Thornbury	?	?	++	0	0	+	++	++	+	+	-	+	0	0	-	--	--	--	-	--	--	?--	0	--	0	0	-
EPS-BV3	Land at, Shortwood	?	?	?--	--	0	+	++	++	+	+	+	+	0	0	-	0	0	--	?--	--	--	-	0	--	0	0	-
EPS-BV4	Land north of, London Road, Wick	?	?	++	--	0	++	+	+	--	--	-	+	0	0	--	0	0	--	?--	-	--	?--	0	-	0	0	0
EPS-FC3	Land off, Wotton Road, Rangeworthy	?	?	++	0	0	+	++	++	+	+	--	+	0	0	--	0	0	--	-	--	--	-	0	--	0	0	-
EPS-BV5	Pitt Farm	?	?	?--	--	0	++	++	++	+	+	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-PSB1	Land south of the B4055, Easter Compton	?	?	?--	--	0	+	++	++	+	--	-	+	0	0	0	--	--	--	?--	--	--	?--	0	--	0	0	-
EPS-CSCE2	Land to the East of Badminton Road, North of Lockington Road	?	?	++	0	0	+	+	+	+	+	-	+	0	0	0	--	--	--	?--	0	--	?--	0	--	0	0	-
EPS-SV3	Land at Hortham Lane, Almondsbury, BS32 4JH	?	?	++	--	0	+	+	+	--	--	-	+	0	0	--	0	0	--	?--	--	--	?--	0	-	0	0	-
EPS-BV6	Land south of Shortwood Hill, Mangotsfield, BS16 9PF	?	?	++	0	0	+	++	++	+	--	--	+	0	0	0	--	--	--	?--	--	--	?--	0	-	0	0	0
EPS-BV12	The Sawmills, Bath Road, Bridge Yate	?	?	?--	--	0	++	++	++	+	--	-	+	0	0	++	--	--	--	?--	--	++	-	--	--	0	?+	-
EPS-FC6	Land off Bristol Road	?	?	++	0	0	++	+	+	+	+	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	-
EPS-EG1	Land at Shortwood	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	--	0	0	-
EPS-PSB2	Land Between Over Lane and the B4055, Easter Compton	?	?	++	0	0	+	++	++	+	--	--	+	0	0	-	0	0	--	?--	--	--	?--	0	-	0	0	0
EPS-BV7	Land Adjacent to The Homestead, Manor Road, Wick	?	?	++	--	0	++	+	+	+	--	-	+	0	0	--	0	0	--	?--	--	+	?--	0	--	0	?+	0
EPS-FC4	Land at 404 North Road, Yate	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	-	0	--	0	0	-
EPS-WIN1	Land to the North of the Railway Line, Winterbourne	?	?	++	0	0	++	+	+	+	+	+	+	0	0	+	0	0	--	0	--	--	?--	0	-	0	0	-
EPS-WIN2	Land at York Gardens, Winterbourne	?	?	?--	0	0	++	+	+	+	--	-	+	0	0	0	0	0	-	-	0	+	-	0	--	0	0	-
EPS-BV13	Land at Westerleigh	?	?	++	--	0	+	++	++	+	--	--	+	0	0	0	0	0	--	?--	--	++	?--	0	--	0	+	-

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
EPS-PW1	15 and 17a, London Road, Warmley	?	?	++	--	--	+	+	+	+	+	-	+	0	0	++	--	--	--	?--	--	--	?--	0	-	0	0	-
EPS-PSB3	Land to the east of the B4055, Pilning Station	?	?	++	--	0	++	0	0	+	0	-	+	0	++	0	--	--	--	-	--	--	?--	0	-	0	0	0
EPS-THOR2	Land to west of Park Farm	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	-	0	--	--	0	--	0	0	0
EPS-BV8	Land to rear of 91 High Street, Wick, Bristol, BS30 5QQ	?	?	++	--	0	++	+	+	+	--	-	+	0	0	0	--	--	--	?--	--	+	-	0	0	0	?+	0
EPS-SV4	Land at Grey Gables, Vicarage Lane, Olveston,	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	--	--	--	0	--	+	--	0	--	0	?+	-
EPS-SV5	Land on the South Side of Gaunts Earthcott Lane	?	?	?--	0	0	--	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
EPS-FC5	Land at North Road, Yate	?	?	++	--	0	+	+	+	+	++	--	+	0	0	++	0	0	--	0	0	+	?--	0	0	0	?+	-
EPS-CHAR8	Land at Townwell, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	--	-	0	--	?--	0	--	0	0	-
EPS-FC7	Land to rear of 450 North Road, Yate	?	?	+	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-
EPS-BOC2	Land at 12, The Park, Willsbridge BS30 6EE	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	?--	0	0	0	?+	0
EPS-BOC3	Jarretts Garden Centre, Bath Road	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	0	0	--	?--	--	+	--	0	0	0	?+	0
EPS-CHAR9	Land at Talbots End, Cromhall	?	?	++	0	0	+	+	+	+	--	-	+	0	0	--	--	--	-	0	0	--	?--	0	--	0	0	-
EPS-HA2	Land south of Abbots Road	?	?	++	0	0	+	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
EPS-WIN3	Land west of Winterbourne Hill	?	?	++	0	0	++	++	++	+	+	+	+	0	0	-	0	0	--	0	--	--	--	0	-	0	0	-
EPS-CSCE3	Land at Rushmoor Dairy, Badminton	?	?	++	0	0	+	0	0	+	0	-	+	0	+	0	--	--	-	?--	0	+	?--	0	--	-	?+	-
EPS-CSCE4	Buffer Depot, Acton Turville	?	?	++	0	0	+	+	+	+	--	-	+	0	0	0	--	--	--	?--	0	+	--	--	--	-	?+	0
EPS-HA3	Land at Castle Inn Farm	?	?	?--	0	0	--	++	++	+	+	-	+	0	0	--	--	--	--	?--	--	--	--	0	-	0	0	-
EPS-SV6	Land North of A38, Alveston	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	0	--	?--	0	--	0	0	-
EPS-SV7	Land off Gaunts Earthcott Lane	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	--	--	--	-	?--	0	--	?--	0	-	0	0	0
EPS-FC8	Land to west of Wotton Road	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	-	-	0	--	--	0	--	0	0	-
EPS-SV8	Recreation Ground Oaklands Drive, Almondsbury	?	?	++	--	0	++	+	+	+	+	-	+	0	0	+	--	--	--	0	--	+	-	0	0	0	?+	0

Site Ref.	Site Address	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b	
EPS-FC9	Field to south of Rock View, Engine Common Lane	?	?	++	0	0	+	+	+	--	--	--	+	0	0	--	0	0	--	-	0	--	-	0	--	0	0	0	-
EPS-PSB4	Land off Blackhorse Hill	?	?	?--	--	0	+	++	++	+	--	--	+	0	0	-	--	--	--	?--	--	--	?--	0	-	0	0	0	
EPS-FC10	Land at Berrows Mead	?	?	++	0	0	+	+	+	+	--	--	+	0	0	0	0	0	--	0	--	+	?--	0	-	0	0	-	
EPS-THOR3	Land west of B4061	?	?	?--	--	0	++	+	+	++	--	++	+	0	0	++	--	--	--	-	--	--	--	--	--	0	0	0	
EPS-FC11	Land to the west of Wotton Road	?	?	++	0	0	+	+	+	+	+	--	+	0	0	--	0	0	-	0	0	--	?--	0	--	0	0	-	
EPS-FC12	Land at Dyers Lane	?	?	++	--	0	+	+	+	+	--	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	?+	-	
EPS-CSCE5	Land South of Luckington Road	?	?	?--	0	0	+	++	++	+	+	-	+	0	0	++	--	--	--	-	0	+	?--	0	--	0	0	0	
EPS-BV9	Lower Shortwood	?	?	?--	--	0	+	++	++	+	+	--	+	0	0	0	--	--	--	?--	--	++	?--	0	0	0	?+	-	
EPS-FC13	Tytherington Quarry, Tytherington Road	?	?	++	0	0	--	0	0	--	0	--	+	0	++	0	--	--	--	?--	--	++	?--	0	--	0	?+	-	
EPS-PSB5	Land at The Paddock	?	?	++	0	0	+	+	+	+	--	--	+	0	0	--	--	--	--	?--	--	--	?--	0	-	0	0	0	
EPS-BV10	Glenfern and Land to East of Carsons Road	?	?	++	0	0	+	0	0	+	0	--	+	0	++	0	0	0	--	?--	--	++	?--	0	0	0	?+	-	
EPS-BV14	Land north of A420 and south of Goose Green	?	?	++	--	--	+	++	++	+	+	-	+	0	0	0	0	0	--	?--	--	--	?--	0	-	0	0	-	
EPS-BV11	Homeapple Close	?	?	++	--	0	+	0	0	-	0	--	+	0	+	0	--	--	-	?--	--	+	?--	0	--	0	?+	0	
EPS-SV9	Land Off Tockington Lane	?	?	++	0	0	++	+	+	+	+	-	+	0	0	--	--	--	--	0	--	+	?--	0	--	0	?+	0	
EPS-SV10	The Quarters Colony Farm	?	?	?--	0	0	+	++	++	--	--	--	+	0	0	0	0	0	-	?--	--	++	?--	0	0	0	?+	0	
EPS-SV11	The Old Vicarage	?	?	++	--	0	+	+	+	+	+	-	+	0	0	--	--	--	--	?--	--	+	-	0	--	0	?+	-	
EPS-SV12	Land to the North of Berkeley Vale Motors	?	?	?--	--	0	+	+	+	+	+	-	+	0	0	--	0	0	--	-	0	+	?--	0	--	0	?+	-	

6.22 New development in any location will generate new demands for energy and, consequently, this will lead to increased greenhouse gas emissions and increased contributions toward climate change. However, the extent of this is dependent on the proposed overall scale of growth and the design of individual developments and is unlikely to be significantly affected by the overall spatial strategy. Factors determining the impacts of development include the use of climate change mitigation and adaptation measures, such as appropriate building orientation, SuDS, energy efficient and water efficient design and renewable energy infrastructure. The influence of the Emerging Preferred Strategy (EPS) on levels of car use, e.g. for commuting, is considered separately under SA objective 3f: Sustainable travel. The EPS is therefore considered to have uncertain effects in relation to SA objective 1a: Contributing to climate change and SA objective 1b: Adapting to climate change.

6.23 Designated public open spaces tend to be more heavily concentrated in the urban areas where access to natural and semi-natural open space is more limited. The EPS's inclusion of urban extensions, adjacent to the East Fringe of the urban area of greater Bristol, means that new communities will be able to take advantage of existing green space by allocating development in areas with greater accessibility. The EPS also includes small-site development in more rural areas, which will lead to a more dispersed pattern of growth. This will see less pressure placed on designated green spaces in urban areas whilst avoiding larger development in rural settings that may impact public open space such as Public Rights of Way. It is also noted that some sites along the East Fringe have not been included in the EPS as they would effectively isolate key green assets in and around Warmley and Siston from the wider countryside or sever strategic-scale north south connections in the strategic Green Infrastructure network. As such, a minor positive effect is identified for the EPS in relation to SA objective 2a: Public open space.

6.24 All growth is expected to have a negative effect in relation to SA objective 2b: Noise as some level of increased noise pollution is expected to result from any new form of development, particularly in the short term during the construction phase. The severity of any such noise pollution is dependent on

the overall scale of growth and the design of individual developments, as well as the extent of sensitive receptors nearby. As the EPS seeks to extend development through focussing growth in the greater Bristol urban area, it is likely that new development will be exposed to existing noise pollution and that sensitive receptors may be impacted by new development during the construction phase in particular. A potential but uncertain significant negative effect is therefore identified. Uncertainty is attached as the design of development and proximity to sensitive receptors is unknown at this time.

6.25 The EPS could affect SA objective 2c: Air quality and SA objective 3f: Sustainable transport in terms of the extent to which it would result in private car use, as well as the extent to which it may result in development in or near to one of the Air Quality Management Areas (AQMAs) that have been declared in South Gloucestershire. Urban extensions as proposed in the EPS, create the potential to encourage more sustainable travel habits by reducing the potential need for travel across the Green Belt and further afield to access jobs and services. It is noted that the East Fringe of greater Bristol offers opportunities to connect and enhance to existing infrastructure and public transport community hubs, including the metrobus connections from Lyde Green to the University of the West of England and Bristol city centre, Bristol to Bath Cycle Path and active travel routes adjacent to the A4174 ring road. There are also good public transport and active travel routes that could form the backbone to sustainable transport options for the North Fringe of Bristol. While growth under the EPS would therefore benefit from access to sustainable transport modes, additional measures and investment will be required. The EPS does not allocate development in any locations that would impact the Kingswood Warmley AQMA or Staple Hill AQMA, avoiding pollution in the worst affected areas in South Gloucestershire. Overall, the EPS is expected to have a mixed (significant positive and minor negative) effect on both SA objective 2c: Air quality and SA objective 3f: Sustainable travel.

6.26 Due to continued pressure from many infrastructure providers to centralise services and facilities into fewer larger hubs, access to healthcare (SA objective 2d: Access to healthcare services), as well as access to community facilities, education and retail (SA objective 3c/3d/3e: Access to community facilities, education and retail) is more viable in urban areas. As such, focusing new

development around the urban edge under the EPS would likely achieve the greatest levels of access for residents to existing community facilities in more urban areas. This includes land adjacent to the urban North and Eastern Fringes of Bristol within South Gloucestershire, the employment area at Severnside, as well as a number of smaller villages, including Easter Compton, Charfield and Almondsbury, in the Green Belt that are considered to be in close enough proximity to Bristol to benefit from the services, facilities and job opportunities. Any improvements delivered as part of new development or as a result of an increase in the local population would also be accessible to more existing residents. Under the EPS most rural villages are not prioritised for larger scales of growth, and as such, may face difficulty accessing essential healthcare and community facilities which are often located in less accessible and urban locations. However, the EPS does acknowledge that it is unlikely that the level of homes and jobs proposed in rural communities will deliver any substantial new services and facilities due to the centralised nature of infrastructure, and that it will be important that they have an existing level of services that could support new homes and jobs. This means considering the current provisions and capacity, particularly for existing education and health facilities and using this to help determine the level of development that would help to support existing services and not lead to a situation of increased pressure and lack of capacity. Due to pressures to centralise services and facilities, development within the urban edges will likely enable as many people as possible to access existing and new services in as convenient a way as possible. A significant positive effect is therefore expected for the EPS.

6.27 The EPS will deliver 9,660 new homes (that have not been previously allocated/granted permission) through extensions to the urban area, Market Town extensions, within existing Urban and Market Towns and rural villages and settlements. This would contribute towards providing an appropriate mix of housing across South Gloucestershire's urban and rural areas. As such, a significant positive effect is expected in relation to SA objective 3a/3b: Housing.

6.28 Deprivation is measured across multiple dimensions, including education, employment, health and housing. The deprivation that exists in South Gloucestershire is spread across the authority's urban areas, market towns and rural settlements, and as such, the EPS is expected to have an uncertain

significant positive effect in relation to SA objective 3g: Deprivation as it will contribute towards delivering at least some new development in areas that are more deprived.

6.29 Rural areas and more isolated settlements struggle with consistent digital connectivity more than urban areas, as such development in more rural areas across the authority are more likely to provide inclusive access to communities with the greatest need. Improved digital connectivity in rural areas drive productivity growth, deliver safety benefits, and improves the quality of people's lives. Whilst the EPS seeks to provide development on the urban edge which may draw the benefits of new development away from more rural areas where improved digital connectivity is potentially required the most, it does also include site allocations in rural communities which will contribute towards growth and greater digital connectivity across South Gloucestershire. As such, the EPS is likely to have a mixed minor positive and minor negative effect in relation to SA objective 3h: Digital connectivity.

6.30 In total, the EPS will allocate around 46ha of potential employment land, consisting of light industrial/distribution, mixed employment, research and office space across the urban edge, Market Towns and rural communities. In South Gloucestershire, areas that are safeguarded for economic development and designated enterprise areas tend to be centred around the urban edge. By including development in these areas, including the Severnside employment area and the provision of a diverse range of employment opportunities in the East Fringe of Bristol, the EPS could provide greater opportunities for employment in areas that can accommodate higher levels of growth, benefitting residents in proximity to these employment areas. In addition, employment opportunities located in areas that can be reached via existing or new sustainable transport methods, reduces the number and length of car journeys. The EPS also acknowledges the rural economy and encourages employment development in these locations which will help to diversify the local economy. As such, the EPS is expected to have significant positive effects in relation to SA objective 4a: New employment floorspace and SA objective 4b: Access to major employment areas.

6.31 All new development has the potential to have an impact on the historic environment both in terms of heritage assets experiencing physical impacts or impacts through a change in setting as a result of any development proposals. The extent to which any new development could be considered to impact on any heritage asset(s) will require a detailed case-by-case assessment to ensure, in accordance with national guidance, not only significant harmful impacts are avoided but where there are concerns about potential negative impacts resulting, opportunities for mitigation through design, layout and scale of any new development are taken. Therefore, there is uncertainty attached to the effects identified in relation to SA objective 5a/5b: Historic environment for the EPS. Although heritage assets are scattered throughout South Gloucestershire there are concentrated areas of heritage assets within the urban areas. As such, development in urban areas in particular could adversely affect the historic environment. Notably, sites EPS-PSB1, EPS-PSB2, EPS-PSB4 and EPS-PSB5 proposed adjacent to Easter Compton are at a greater risk of harming local heritage and archaeological assets, however this is uncertain until masterplanning and site design by developers is prepared. Delivering new development at the more isolated and rural settlements in the authority is likely to result in adverse impacts in terms of preserving established character and the setting of local heritage assets. Notably sites proposed at Willsbridge (EPS-BOC2 and EPS-BOC3), Oldland Common (EPS-BOC1), Warmley (EPS-BV14), Shortwood (EPS-BV9, EPS-BV6 and EPS-BV10) and Mangotsfield (EPS-EG2) must address the setting of heritage assets particularly where there are important historic viewpoints. However, the amount and type of heritage assets across each settlement in the rural areas of South Gloucestershire varies, as demonstrated by the dispersed nature of designated Conservation Areas. It is noted however, that the EPS has sought to disregard sites considered in the growth lenses that are adjacent and near to the Market Towns which could have adverse impacts on heritage assets and their settings. For these reasons, the EPS is considered to have a potential but uncertain minor negative effect, as it is noted that opportunities may exist for enhancing character and the setting of heritage assets, but this will be largely dependent on the design and layout of specific proposals.

6.32 All new development has potential to have an impact, positive or negative, on South Gloucestershire's biodiversity, green infrastructure and landscapes.

However, specific impacts, including the extent to which new development may even enhance these, will be dependent on the design and layout of individual development proposals. Therefore, there is particular uncertainty attached to the effects identified for the EPS in relation to SA objective 5c: Biodiversity, SA objective 5d: Landscape and SA objective 5e: Green infrastructure. The EPS would likely limit negative effects on biodiversity due to efficient land use associated with increased opportunities for brownfield development in urban areas. It is noted that there are also a number of opportunities along the East Fringe for development to create and enhance access from the urban area into the countryside by protecting and connecting existing green infrastructure assets such as woodland and common land. However, denser development within urban areas could increase pressures on open green spaces. It is also noted that brownfield sites can still harbour valuable biodiversity that may be impacted by development. Additionally, site EPS-BV9 at the former Shortwood Golf Course would need to re-provide the SNCI on site as part of the green infrastructure and biodiversity net gain offer of any future development. The EPS may therefore have a negative effect on South Gloucestershire's urban green infrastructure network, landscape and biodiversity. Whilst the EPS focuses development on the urban edge, it also encourages a dispersed pattern of development across the authority, reducing the potential for cumulative adverse impacts on biodiversity, green infrastructure and the landscape. With some level of distributed growth, this also creates the opportunity to achieve biodiversity net gain and green infrastructure implementation from all developments, even at smaller sites located away from the urban fringes. However, a wider distribution of development does potentially mean more areas are affected especially since South Gloucestershire's rural areas contain many natural assets and landscape designations which may be affected. Notably, the EPS designates sites in the Cotswolds AONB, which may cause harm to the character and appearance of the area. It is also noted that the EPS would allocate development in the Green Belt, however the purpose of Green Belt is to prevent urban sprawl and retain open land between settlements, rather than to promote green infrastructure or biodiversity. Finally, while the EPS does not direct development within the Severn Estuary SAC, SPA or Ramsar site, additional development in general will increase air and noise pollution and recreational pressure which could adversely impact the sites. For these reasons, the EPS is expected to have a mixed (minor positive and minor

negative) effect with uncertainty in relation to SA objective 5c: Biodiversity, SA objective 5d: Landscape and SA objective 5e: Green infrastructure.

6.33 Whilst the main built-up areas that would see development under the EPS are largely classified as Urban under Agricultural Land Classification (ALC) criteria, there is a mixture of agricultural land surrounding the urban areas. Notably, most of the land immediately surrounding areas such as Mangotsfield is Grade 2, with smaller pockets of Grade 1 land towards the north of the area that may be affected by urban growth. This would likely lead to the loss of best and most versatile agricultural land, particularly because the EPS would rely on urban extension allocations to accommodate large scale growth. It is noted, however, that market town and urban development may offer more opportunities for brownfield land use. Whilst more distributed development would reduce the pressure on some urban areas, it would see some development in South Gloucestershire's rural areas, which would likely lead to the loss of agricultural land. As such, significant negative effects are expected in relation to SA objective 5f/5g: land use.

6.34 The scale of development that would come forward under the EPS would result in an increased demand for water consumption; however it is possible that new development would be designed and built to high standards of efficiency. The broad location of development will not have significant impacts on water availability although more concentrated patterns of development may focus demand in smaller areas, exacerbating potential negative effects. Additionally, given the distribution of development that the EPS would facilitate, there is potential to distribute new development amongst a range of settlements which may help to avoid the development of sites at high risk of flooding. The EPS does however direct development to areas at risk of flooding (Flood Zones 2 and 3), including the market towns of Yate and Thornbury. Sites EPS-BV12 (located in Yate) and EPS-THOR1 (located in Thornbury) have received significant negative effects in relation to SA objective 5h/5i: Flood risk. As such, development in these areas could increase the risk of flooding and impermeable surfaces. Additionally, all urban areas within South Gloucestershire are designated as areas susceptible to ground water flooding. The EPS also allocates residential and economic development in urban fringe areas and within the Severnside area (EPS-PSB3), which is entirely located within Flood

Zone 3. It is noted that the current Avonmouth and Severnside Enterprise Area (ASEA) Ecology Mitigation and Flood Defence Project is designed to provide the appropriate level of protection for less vulnerable uses such as employment, however it is unclear how a deliverable and funded strategy for protecting new homes, classified as 'vulnerable' to flood risk events would be achieved here. The EPS does create greater opportunity for the implementation of SuDS into development, however. Overall, uncertain significant negative effects are expected for the EPS in relation to SA objective 5h/5i: Flood risk and SA objective 5j: Water resources.

6.35 New development as part of the EPS will result in the use of raw materials and the generation of waste, both in construction and operation; however this will not be influenced by the broad spatial distribution of development. Waste management practices are largely dependent on peoples' behaviour and the design of development and as such, the EPS would have negligible effects on SA objective 6a/6b: Waste and resources.

6.36 The SA of the EPS is high level, and as a result there are a lot of uncertainties attached to the judgements of potential effects. As the EPS incorporates sites from all three growth lenses, it is likely to prove the most sustainable spatial strategy across a range of SA objectives as it would provide development in areas that surround Bristol and the Severnside employment area. It generally provides good access to services, facilities, jobs and transport links, with shorter journeys making sustainable transport more realistically likely. It would also reduce the need to develop the more rural areas of South Gloucestershire, these being generally of higher landscape and biodiversity value. However, it would provide some development within rural areas which could enhance the rural economy.

Policies

6.37 Table 6.4 sets out the summary SA findings for the 14 policies presented in the Phase 3 consultation document.

Table 6.4: Summary of the SA findings for the Policies

Policy	1a	1b	2a	2b	2c	2d	3a	3b	3c	3d	3e	3f	3g	4a	4b	5a	5b	5c	5d	5e	5f	5g	5h	5i	5j	6a	6b
Climate change mitigation, adaptation and resilience	++	++	+	0	+	0	+	0	+	0	+	0	0	0	+	0	0	+	0	+	+	0	0	0	0	0	0
Energy management in new development	++	0	0	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Embodied carbon	++	+	0	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	0	++	0
Renewable and low carbon energy systems	++	0	0	0	0	0	+	0	0	0	0	0	0	0	0	-?	-?	-?	-?	0	0	0	0	0	+	0	0
Community energy	++	0	0	0	0	0	0	0	0	0	0	+	0	0	0	-?	-?	-?	-?	0	0	0	0	0	0	0	0
Affordable homes	0	0	0	0	0	+	+	+	0	0	0	+	0	0	0	-?	-?	-?	-?	0	0	0	--	0	0	0	0
Sites for gypsies and travellers	0	0	0	0	0	0	+	+	0	0	0	0	0	0	0	0	0	0	+/-	+	0	0	0	0	0	0	0
Sites for traveling showpeople	0	0	0	0	0	0	+	+	0	0	0	0	0	0	0	0	0	0	+/-	+	0	0	0	0	0	0	0
Internal space and accessibility standards	0	0	0	0	0	0	+	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minerals	-	0	+?	-	-	0	0	0	0	0	0	0	0	0	0	-?	-?	-?	-?	0	0	0	0	0	0	0	-- ?/+
Economy and jobs	+/-?	0	0	+/-?	-?	0	0	0	+	0	0	+	0	++	+	-?	-?	-?	-?	0	+	--?	0	0	0	0	0
Town centres	+/-?	0	0	+/-?	+/-?	+	0	0	+	+	+	+	0	++	+	+	+	0	+	0	+	0	0	0	0	0	0
Strategic and major site delivery	++/- ?	+	+	+/-?	-?	+	++	++	+	+	+	+	+	++	+	+/-?	+/-?	+/-?	+/-?	+	0	--?	+	+	0	0	0
Stewardship arrangements	0	+	+?	+	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	0	0	0

SA Objective 1a. Climate change mitigation

6.38 The policies addressing Climate Change Mitigation, Adaptation and Resilience, Energy Management in New Development, Embodied Carbon, Renewable and Low Carbon Energy Systems and Community Energy will directly support the Council's target of achieving carbon neutrality by 2030. As such, significant positive effects are identified for these policies in relation to SA objective 1a.

6.39 Mixed effects are expected in relation to this SA objective for several of the policies. The delivery of large-scale new communities will have a significant influence on South Gloucestershire's greenhouse gas emissions, during both the construction and operational phase of development. A significant negative effect is therefore identified in relation to this SA objective for the Strategic and Major Site Delivery policy due to the scale of development that is being supported. However, the policy is designed to ensure that such developments are delivered in a sustainable way and includes measures to encourage use of BREEAM assessments and sustainable construction methods and ongoing review of the development's objectives in relation to climate change mitigation and adaptation. A significant positive effect is therefore also identified against this policy for SA objective 1a.

6.40 The policies addressing Economy and Jobs and Town Centres are also designed to drive development and increase movement within South Gloucestershire's urban areas, but the policies set out key sustainability measures such as sustainable transport improvements and reducing distance to employment. Mixed minor positive and minor negative effects are therefore recorded against these policies in relation to SA objective 1a. The effects identified are uncertain as they will be dependent on the specific layout of development that comes forward and people's transport choices.

6.41 Minerals operations within South Gloucestershire, as supported in the Minerals policy, will require transport via HGVs, which will increase transport

related greenhouse gas emissions within the area. As such, a minor negative effect is expected for this policy in relation to SA objective 1a.

SA Objective 1b. Climate change adaptation

6.42 The Climate Change Mitigation, Adaptation and Resilience policy requires all development proposals to be subject to a climate adaptation assessment that has regard to extreme weather events and how they could impact inhabitants of the development. The policy sets out that this assessment will inform the design process of development proposals in South Gloucestershire, potentially impacting the layout, form, massing and orientation. Given the direct approach set out in the policy, a significant positive effect is identified in relation to SA objective 1b.

6.43 Whilst the Embodied Carbon policy is not directly concerned with adaptation to the unavoidable impacts of climate change, it does include a requirement that new buildings should be flexible and adaptable for future uses. This may include future retrofitting to ensure buildings are suitable for weather conditions within South Gloucestershire. A minor positive effect is therefore identified for the policy against SA objective 1b.

6.44 As part of the ongoing maintenance for large-scale new communities, the Strategic and Major Site Delivery policy requires development proposals to include review mechanisms that will ensure climate adaptation objectives keep pace with new regulations and technology. As a result, a minor positive effect is expected from the policy in relation to SA objective 1b.

SA Objective 2a. Access to public open space

6.45 The Climate Change Mitigation, Adaptation and Resilience policy and Strategic and Major Site Delivery policy both make specific reference to the inclusion of Green Infrastructure as part of development proposals. This may

offer existing and new residents valuable areas of open space and, therefore, minor positive effects are expected in relation to SA objective 2a for those policies.

6.46 In the long term, the Minerals policy includes a requirement that restoration of minerals sites could contribute to the delivery of recreational space. The positive effect identified for this policy is uncertain as the restoration process of mineral sites may not include public open space. The Stewardship Arrangements policy may also contribute to providing access to public open space for residents in the long term as it sets out maintenance requirements for such areas. An uncertain minor positive effect is therefore also identified for this policy in relation to SA objective 2a.

SA Objective 2b. Noise

6.47 Minerals operations have the potential to cause noise disturbance to residents within the area through the use of heavy machinery and HGVs. A minor negative effect is therefore expected for the Minerals policy in relation to SA objective 2b.

6.48 Mixed effects are identified for the Strategic and Major Site Delivery policy. The delivery of large-scale new communities could have noise implications for existing residents within South Gloucestershire. However, the minor negative effect identified for this policy in relation to SA objective 2b is mixed with an uncertain minor positive effect as the policy sets out that strategic development allocations should engage with stakeholders during the design and construction phases, as well as developing a community strategy. For policies Economy and Jobs and Town Centres, there is also potential for new development to create noise and for new residents to be disturbed in mixed use locations and town centres. However, effects identified are also mixed for these policies as they set out measures that are likely to reduce noise disturbance. These effects are uncertain as they will be dependent on the specific design and layout of any development that comes forward.

6.49 A minor positive effect is identified for the Stewardship Arrangements policy in relation to this SA objective because the governance and community development arrangements set out in the policy may help to foster healthy communities where there is limited noise disturbance from anti-social behaviour.

SA Objective 2c. Air quality

6.50 The Climate Change Mitigation, Adaptation and Resilience policy requires development proposals to enable forms of development that will encourage walking and cycling, instead of journeys by private car. As a result, traffic congestion could be reduced, therefore a minor positive effect is expected for this policy in relation to SA objective 2c.

6.51 Poor air quality in South Gloucestershire is generally caused by congestion on key transport routes. It is likely that the residential, employment and town centre uses supported through the Strategic and Major Site Delivery, Economy and Jobs and Town Centres policies will generate increased trips via private car travel within the area. The minor negative effects attributed to these policies in relation to SA objective 2c are uncertain as they will be dependent upon the nature of people's travel patterns, which are difficult to predict at this stage. In the case of the Town Centres policy, a minor positive effect is also expected in combination as the policy states that edge of centre development proposals and out of centre proposals will only be acceptable where they demonstrate access by walking, cycling and public transport links.

6.52 A minor negative effect is expected for the Minerals policy in relation to SA objective 2c as the use of HGVs in minerals operations could worsen air quality.

SA Objective 2d. Access to healthcare services and facilities

6.53 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access healthcare facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. As such, minor positive effects are expected for those policies in relation to SA objective 2d.

SA Objective 3a. High quality housing

6.54 The Strategic and Major Site Delivery policy sets out a framework to ensure that new communities are delivered as efficiently as possible. A significant positive effect is therefore identified in relation to SA objective 3a as the policy will help to deliver a high volume of housing within South Gloucestershire. The policies for Sites for Gypsies and Travellers and Sites for Traveling Showpeople will ensure there is also sufficient supply of sites within the area to cater to these communities. Similarly, the Affordable Homes policy will ensure that 6,709 Affordable Homes are provided over the plan period to meet South Gloucestershire's identified need. Minor positive effects are therefore expected for these policies in relation to SA objective 3a.

6.55 It will also be important to ensure that new housing within South Gloucestershire is of a high quality, which is supported through a number of the policies. Policies that set out to create sustainably constructed homes with high energy efficiency and access to renewable energy will provide some long-term quality assurance in the new housing stock in South Gloucestershire. The Stewardship Arrangements policy also provides some long-term assurances in quality to communities by setting out key maintenance measures. As such, minor positive effects are expected in relation to SA objective 3a for policies Climate Change Mitigation, Adaptation and Resilience, Energy Management in New Development, Embodied Carbon, Renewable and Low Carbon Energy Systems, Community Energy and Stewardship Arrangements.

6.56 The Internal Space and Accessibility Standards policy ensures that new housing stock will be compliant with Nationally Described Space Standards and that a proportion of housing delivered will meet higher accessibility standards. As such, a minor positive effect is expected for the policy against this SA objective.

SA Objective 3b. Mix of high quality housing types and tenures

6.57 The Affordable Homes, Sites for Gypsies and Travellers and Sites for Travelling Showpeople policies are expected to have minor positive effects in relation to SA objective 3b. In the former of these policies, it is set out that new housing developments of 10 or more dwellings or 0.5 hectares must provide a minimum of 35% on-site Affordable Housing and greenfield sites with no significant infrastructure requirements or viability constraints must achieve 40% on-site Affordable Housing. This will ensure that a proportion of new housing stock will be affordable which will ensure that new housing in the area is attainable by a wide range of demographics. As well as catering for first-time buyers and people on lower incomes, it will also be necessary to provide housing for an ageing population and people with disabilities. The Internal Space and Accessibility Standards policy sets out that 10% of affordable housing and 4% of market housing should be wheelchair accessible. Therefore, a minor positive effect is expected for this policy in relation to SA objective 3b.

6.58 It is likely that the delivery of a suitable mix of housing and affordable housing will be more viable on larger sites. A significant positive effect is therefore identified for the Strategic and Major Site Delivery policy as it aims to ensure efficient delivery of large-scale new communities where a mix of housing can be accommodated.

SA Objective 3c. Access to community facilities

6.59 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and commute to community facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. As such, minor positive effects are expected for the policies in relation to SA objective 3c.

SA Objective 3d. Access to educational facilities

6.60 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and commute to educational facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. As such, minor positive effects are expected for the policies in relation to SA objective 3d.

SA Objective 3e. Access to retail and food buying services and facilities

6.61 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access retail and food services and facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. In addition to transport provision, the Town Centres and Strategic and Major Site Delivery policies will support and safeguard town centres uses and include a retail strategy for a variety of uses. As such, minor positive effects are expected for these policies in relation to SA objective 3e.

SA Objective 3f. Deprivation

6.62 The average house price within South Gloucestershire is higher than the UK average and a lack of access to affordable housing is linked to poverty and income inequality. As such, the Affordable Homes policy is expected to have a minor positive effect in relation to this SA objective.

6.63 The Community Energy policy suggests that proposals for community-led energy schemes will be considered favourably if they provide substantial and definable social and economic benefits to a local community. A minor positive effect is therefore identified for this policy in relation to SA objective 3f.

6.64 Large-scale new communities can provide regeneration to communities that have been previously deprived, through provision of new services and facilities, job opportunities and transport links. Similarly, provision and safeguarding of employment land and key town centre uses can reduce the potential for deprivation amongst communities. A minor positive effect is therefore recorded against SA objective 3f for policies Strategic and Major Site Delivery policy, Economy and Jobs and Town Centres.

SA Objective 3g. Digital connectivity

6.65 The delivery of large-scale new communities will be accompanied by high speed broadband for new residents, whilst also offering the potential to increase broadband speeds for existing residents in the area. As a result, a minor positive effect is recorded against SA objective 3g for the Strategic and Major Site Delivery policy.

SA Objective 4a. Employment floor space

6.66 The Economy and Jobs policy sets out a number of measures to ensure that existing and new residents within South Gloucestershire will have access to a range of employment opportunities. This includes requirements to maintain a supply of land for economic development, safeguarding of areas for economic development, maximisation of employment density within strategic allocations and facilitation of access to employment and training for local residents. A significant positive effect is therefore expected for this policy in relation to SA objective 4a. A significant positive effect is also identified for the Town Centres and Strategic and Major Site Delivery policies as they will also support the retention of and delivery of employment space.

SA Objective 4b. Access to major employment areas

6.67 The Economy and Jobs policy sets out where employment land will be delivered in South Gloucestershire and areas of employment that are to be retained and safeguarded for employment uses. Maintaining a good supply of employment land will ensure that new and future residents are able to access employment opportunities within close proximity. As such, a minor positive effect is identified for this policy in relation to SA objective 4b.

6.68 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and to commute to major employment area, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. As such, minor positive effects are expected for these policies in relation to SA objective 4b.

SA Objective 5a. Historic environment

6.69 South Gloucestershire contains a relatively high concentration of designated heritage assets and it is possible that any new development within the area could have an adverse impact on them or their setting. As such policies which support the delivery of new development (Affordable Homes, Economy and Jobs, Strategic and Major Site Delivery) could have minor negative effects in relation to SA objective 5a. These effects are uncertain as it will depend on the location and scale of any development that comes forward. In the case of the Strategic and Major Site Delivery policy, there are a number of measures which are designed to ensure the design and implementation of a major development do not adversely impact the surrounding area. As such, a minor positive effect is identified in addition for this policy in relation to this SA objective. The Town Centres policy is expected to also have a minor positive effect in relation to SA objective 5a as it sets out that any new centres should be of an appropriate scale for the locality.

6.70 Minor negative effects are identified for the Renewable and Low Carbon Energy Systems, Community Energy and Minerals policies in relation to SA objective 5a as there is potential for renewable energy installations or minerals workings sites to have adverse impacts on the setting of heritage assets. These effects are uncertain as they will be dependent on the location and scale of any site.

SA Objective 5b. Undesignated heritage assets

6.71 It is expected that the policies will have broadly the same impact on undesignated assets and, therefore, the same effects are identified for policies in relation to SA objective 5b as for SA objective 5a.

SA Objective 5c. Biodiversity

6.72 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 boundary with Gloucestershire forms part of the Severn Estuary which is a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site. As such policies which support the delivery of new development (Affordable Homes, Economy and Jobs, Strategic and Major Site Delivery) could have minor negative effects in relation to SA objective 5c. These effects are uncertain as it will depend on the location and scale of any development that comes forward. In the case of the Strategic and Major Site Delivery policy, there are a number of measures which are designed to ensure the design and implementation of a major development do not adversely impact the surrounding area. As such, a minor positive effect is identified in addition for this policy in relation to this SA objective. The Town Centres policy is expected to also have a minor positive effect in relation to SA objective 5c as it sets out that any new centres should be of an appropriate scale for the locality.

6.73 Minor negative effects are identified for the Renewable and Low Carbon Energy Systems, Community Energy and Minerals policies in relation to SA objective 5c as there is potential for renewable energy installations or minerals workings sites to have adverse impacts on designated biodiversity sites and habitat network. These effects are uncertain as they will be dependent on the location and scale of any site.

6.74 However, a minor positive effect is identified for the Climate Change Mitigation, Adaptation and Resilience policy as it sets out green and blue infrastructure should be incorporated into the design of new developments, which could provide valuable new habitats to support local biodiversity.

SA Objective 5d. Landscape

6.75 South Gloucestershire has many contrasting landscapes, ranging from the Cotswolds National Landscape, an 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. As such policies which support the delivery of new development (Affordable Homes, Economy and Jobs, Strategic and Major Site Delivery) could have minor negative effects in relation to SA objective 5d. These effects are uncertain as it will depend on the location and scale of any development that comes forward. In the case of the Strategic and Major Site Delivery policy, there are a number of measures which are designed to ensure the design and implementation of a major development do not adversely impact the surrounding area. As such, a minor positive effect is identified in addition for this policy in relation to this SA objective. The Town Centres policy is expected to also have a minor positive effect in relation to SA objective 5d as it sets out that any new centres should be of an appropriate scale for the locality.

6.76 Minor negative effects are identified for the Renewable and Low Carbon Energy Systems, Community Energy and Minerals policies in relation to SA objective 5c as there is potential for renewable energy installations or minerals workings sites to have adverse impacts on the local landscape as well as its setting. These effects are uncertain as they will be dependent on the location and scale of any site.

6.77 However, a mixed minor positive and minor negative effect is identified for policies Sites for Gypsies and Travellers and Sites for Travelling Showpeople as while the development of Gypsy and Traveller and Travelling Showpeople sites could adversely impact the local landscape, the policies set out that sites should not have a significant impact on character and appearance which is unable to be mitigated.

SA Objective 5e. Green infrastructure

6.78 A minor positive effect is identified for the Climate Change Mitigation, Adaptation and Resilience policy in relation to SA Objective 5e as it sets out that green and blue infrastructure should be incorporated into the design of new developments, which could provide valuable new habitats to support biodiversity and provide better access to green spaces for residents. Sites for Gypsies and Travellers and Sites for Travelling Showpeople policies also set out desirable criteria for sites which includes incorporating green infrastructure within the site design. Similarly, the Strategic and Major Site Delivery policy requires development proposals to demonstrate green infrastructure possibilities during the outline application stage, to ensure that it is incorporated into the master planning process. A minor positive effect is therefore also identified for this policy in relation to SA objective 5e.

6.79 The Stewardship Arrangements policy ensures that any Green Infrastructure delivered through the emerging plan will receive proportionate developer funding and ongoing maintenance. As such, a minor positive effect is expected for the policy in relation to SA objective 5e.

SA Objective 5f. Land use

6.80 The Climate Change Mitigation, Adaptation and Resilience policy has a requirement that development should use land sustainably. This approach is supported by the Embodied Carbon policy in which development proposals are required to prioritise the renovation or retrofit of existing structures as part of using land efficiently. Minor positive effects are therefore identified for those policies in relation to SA objective 5f.

6.81 The Economy and Jobs policy encourages the maximisation of employment density on strategic allocations for employment and the Town Centres policy requires that development proposals for town centres should be in proportion to the role and function of the location and make use of upper

floors where possible. As a result, minor positive effects are identified for these policies in relation to SA objective 5f.

SA Objective 5g. Agricultural land

6.82 There is potential for the delivery of new development within South Gloucestershire to result in the loss of high quality agricultural land. There is a high proportion of Grade 3, and corridors of Grade 2 agricultural land within the area. As a result, policies which will support the delivery of potentially large-scale, greenfield development could have a significant negative effect in relation to this SA objective. This includes Affordable Homes, Minerals, Economy and Jobs and Strategic and Major Site Delivery policies. The effects identified are uncertain as they will be dependent on the exact locations and scale of development that comes forward.

SA Objective 5h. Tidal/fluvial flooding and SA Objective 5i. Surface water flooding

6.83 A minor positive effect is identified for the Strategic and Major Sites Delivery policy as it requires development proposals to consider Green Infrastructure incorporation during pre-application stage, which could include important SUDs features which would help alleviate any flooding.

SA Objectives 5j. Water quality and quantity

6.84 The Renewable and Low Carbon Energy Systems policy includes a requirement where mine-water energy development proposals will only be supported when there would be no significant adverse impact on the water regime, including assessment and mitigation of any water quality impacts. A minor positive effect is therefore identified for this policy in relation to SA objective 5j.

SA Objective 6a. Waste

6.85 The Embodied Carbon policy includes an emphasis on waste reduction being designed in from project inception to completion. This includes re-use and recycling of materials whenever possible and minimisation of waste. A significant positive effect is therefore identified for this policy in relation to SA objective 6a.

SA Objective 6b. Minerals

6.86 The Minerals policy makes provisions for the extraction of crushed rock at Cromhall Quarry, Tytherington Quarry southwest and Wickwar Quarry northwest. As such, a significant negative effect is expected in relation to SA objective 6b. This effect is uncertain as it is not clear how much extraction will take place at this stage. A minor positive effect is also expected in combination as the Council encourages the provision of recycled aggregates within the policy.

Recommendations

1. Policy Climate Change Mitigation, Adaptation and Resilience could provide further wording regarding criteria for hydropower and other renewable and low carbon technologies.
2. The concept of a 20-minute neighbourhood is a useful tool for informing the design of schemes and the assessment of planning applications. It could be incorporated within the Strategic and Major Site Delivery policy as well as site specific policies within the next stage of the Local Plan process as urban extensions/large developments would be able to facilitate delivery of this concept from the design stage.

3. The Embodied Carbon policy could be updated to require whole life-cycle carbon assessments.
4. The inclusion of nature-based flood management could be incorporated within policies Climate Change Mitigation, Adaptation and Resilience and Strategic and Major Site Delivery to ensure new developments are more resilient as well as providing a range of benefits beyond flood risk management.
5. The water hierarchy as well as water neutrality targets could be included within policy Climate Mitigation, Adaptation and Resilience to ensure that developers consider water efficiency from an early stage of project development.

Cumulative Effects

6.87 This section summarises the likely cumulative effects of the Local Plan objectives, Emerging Preferred Strategy and policies on each of the SA objectives in the SA framework. At this stage in the plan preparation the cumulative effects assessment attempts to consider the total effect of the preferred policy and spatial approaches set out in the Phase 3 consultation document. Once the plan is more developed, at the Regulation 19 stage, it will be possible to highlight any areas or locations where particular effects may accumulate, and also to consider the potential for cumulative effects of the South Gloucestershire Local Plan in combination with other neighbouring plans. Additionally, the cumulative effects of the saved local plan policies will also be taken into account at the Regulation 19 stage. Table 6.5 below summarises the SA findings for the cumulative effects of the emerging Local Plan Phase 3.

Table 6.5: Cumulative effects of the Phase 3 Local Plan

SA Objective	Cumulative Effect
SA Objective 1a: Contributing to climate change	+/-?
SA Objective 1b: Adaptation to climate change	+/-?
SA Objective 2a: Public open space	+?
SA Objective 2b: Noise	+/-
SA Objective 2c: Air quality	+/-
SA Objective 2d: Access to healthcare facilities	+?
SA Objective 3a: Delivery of high quality housing	++
SA Objective 3b: Delivery of mix of housing	++
SA Objective 3c: Access to community facilities	+
SA Objective 3d: Access to educational facilities	+
SA Objective 3e: Access to retail	+
SA Objective 3f: Sustainable travel	++
SA Objective 3g: Deprivation	+
SA Objective 4a: New employment floorspace	++
SA Objective 4b: Access to major employment areas	++
SA Objective 5a: Designated assets	-?
SA Objective 5b: Undesignated assets	-?
SA Objective 5c: Biodiversity	+/-
SA Objective 5d: Landscape	+/-
SA Objective 5e: Green infrastructure	+/-

SA Objective	Cumulative Effect
SA Objective 5f: Promote the conservation and wise use of land	--/+
SA Objective 5g: Minimise the loss of productive land	--/+
SA Objective 5h: Tidal/fluvial flood risk	--
SA Objective 5i: Surface water flood risk	--
SA Objective 5j: Water resources	--
SA Objective 6a: Reduce waste	--/+
SA Objective 6b: Minimise consumption and extraction of minerals	--/+

SA Objective 1a. Climate change mitigation and SA Objective 1b. Climate change adaptation

6.88 South Gloucestershire declared a Climate Emergency in 2019. South Gloucestershire aims to be carbon neutral by 2030 which is supported by the policies relating to Climate Change Mitigation, Adaptation and Resilience, Embodied Carbon, Renewable and Low Carbon Energy Systems and Community Energy. Each of these policies will help to achieve the goal of carbon neutrality as they encourage the generation of energy through renewable and low carbon sources and minimise energy use. Although development proposals will need to consider these policies, the overall scale of new development proposed through the Local Plan could worsen the impacts of climate change. Overall, an uncertain mixed minor positive and minor negative effect is expected in relation to these SA objectives. These effects are likely to be experienced in the long-term.

SA Objective 2a. Access to public open space

6.89 The EPS will provide homes within urban extensions as well as various rural areas which will lead to a more dispersed pattern of growth. This will see a reduced increase in pressure placed on designated green spaces in urban areas as a result of population growth, whilst avoiding larger development in rural settings that may impact public open space such as Public Rights of Way. In addition, the Climate Change Mitigation, Adaptation and Resilience policy and Strategic and Major Site Delivery policy both make specific reference to the inclusion of Green Infrastructure as part of development proposals which could help increase the amount of public open space. Overall, a cumulative uncertain minor positive effect is expected in relation to this SA objective.

SA Objective 2b. Noise

6.90 The delivery of large-scale new communities could have noise implications for existing residents within South Gloucestershire. However, the policy relating to Strategic and Major Site Delivery sets out that strategic development allocations should engage with stakeholders during the design and construction phases and therefore could incorporate noise mitigation such as green infrastructure. Overall, mixed minor negative and minor positive effects are expected in relation to SA objective 2b. The effects identified in relation to noise would likely be more pronounced in the short term during the construction phases of development.

SA Objective 2c. Air quality

6.91 The overall scale of development proposed through the Local Plan will inevitably result in an increase in traffic as well as air pollution and carbon emissions associated with this. However, the Climate Change Mitigation, Adaptation and Resilience policy requires development proposals to enable forms of development that will encourage walking and cycling, instead of

journeys by private car. In addition, the focus of most new growth (including employment growth) towards the urban edges of Bristol and Severnside will encourage more journeys to be made by cycling and walking given the shorter distances to essential services and facilities and jobs. Overall, a cumulative minor positive and minor negative effect is expected in relation to this objective. This effect is expected to be long-term unless additional sustainable modes of transport are incorporated throughout South Gloucestershire and people's behaviour changes, especially in more rural areas.

SA Objective 2d. Access to healthcare services and facilities

6.92 The scale of growth proposed through the Local Plan could result in increased pressure on healthcare services and facilities. However, the delivery of a high proportion of the new housing development towards the urban edges of Bristol, in line with the EPS, will provide many residents with good access to healthcare facilities, which are currently being centralised, which will support improved levels of public health. In addition, the focus of most new growth (including employment growth) towards the urban edges of Bristol and Severnside will encourage more journeys to be made by cycling and walking given the shorter distances to essential services and facilities and jobs. Additionally, requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and commute to healthcare facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. However, as the EPS allocates some growth outside of the urban edges, residents within the rural areas of South Gloucestershire may find it more difficult to access healthcare facilities, especially as they are increasingly becoming centralised.

6.93 Overall, an uncertain minor positive effect is expected. This effect will be long-term and permanent.

SA Objective 3a. High quality housing and SA Objective 3b. Mix of high quality housing types and tenures

6.94 The EPS will deliver 11,230 new homes through extensions to the urban area, Market Town extensions, within existing Urban and Market Towns and rural villages and settlements. This would contribute towards providing an appropriate mix of housing across South Gloucestershire's urban and rural areas. The Strategic and Major Site Delivery policy sets out a framework to ensure that new communities are delivered as efficiently as possible. In addition, the policy relating to Internal Space and Accessibility Standards ensures that new housing stock will be compliant with Nationally Described Space Standards and that a proportion of housing delivered will meet higher accessibility standards. Overall, a cumulative significant positive effect is expected. This is likely to be long term and permanent.

SA Objectives 3c. Access to community facilities and 3d. Access to educational facilities

6.95 The scale of growth proposed through the Local Plan could result in increased pressure on community services and facilities, including educational facilities. However, requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and commute to community and educational facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. Overall, a cumulative minor positive effect is expected. This is expected to be long-term and permanent.

SA Objective 3e. Access to retail and food buying

6.96 Requirements for development proposals to demonstrate sustainable travel links, which residents could use to access and commute to community facilities, are set out in the Climate Change Mitigation, Adaptation and Resilience, Town Centres and Strategic and Major Site Delivery policies. Additionally, Town Centres and Strategic and Major Site Delivery policies will support, and safeguard town centres uses and include a retail strategy for a variety of uses. Additionally, focusing new development around the urban edge under the EPS would likely achieve the greatest levels of access for residents to existing retail and food buying facilities in more urban areas. Overall, a minor positive effect is expected. This is expected to be long-term and permanent.

SA Objective 3f. Deprivation

6.97 Deprivation is measured across multiple dimensions, including education, employment, health and housing. The deprivation that exists in South Gloucestershire is spread across the authority's urban areas, market towns and rural settlements, and as such, the EPS is expected to contribute towards delivering at least some new development in areas that are more deprived.

6.98 The Affordable Homes, Community Energy, Strategic and Major Site Delivery Policy, Economy and Jobs and Town Centres policies all support the local community and could reduce deprivation within the area.

6.99 Overall, a significant positive effect is expected. This effect is expected to be long term and permanent.

SA Objective 3g. Digital connectivity

6.100 Whilst the EPS seeks to provide development on the urban edge which may draw the benefits of new development away from more rural areas where improved digital connectivity is potentially required the most, it does also include site allocations in rural communities which will contribute towards growth and greater digital connectivity across South Gloucestershire. Additionally, the Strategic and Major Site Delivery policy supports the delivery of large-scale new communities that are accompanied by high-speed broadband for new residents, whilst also offering the potential to increase broadband speeds for existing residents in the area.

6.101 Overall, a minor positive effect is expected.

SA Objective 4a. Employment floor space and SA Objective 4b. Access to major employment areas

6.102 The EPS will allocate around 45ha of potential employment land, consisting of light industrial/distribution, mixed employment, research and office space across the urban edge, Market Towns and rural communities. By including development in these areas, including the Severnside employment area and the provision of a diverse range of employment opportunities in the East Fringe of Bristol, the EPS could provide greater opportunities for employment in areas that can accommodate higher levels of growth, benefitting residents in proximity to these employment areas. The Economy and Jobs policy sets out a number of measures to ensure that existing and new residents within South Gloucestershire will have access to a range of employment opportunities. This includes requirements to maintain a supply of land for economic development, safeguarding of areas for economic development, maximisation of employment density within strategic allocations and facilitation of access to employment and training for local residents.

6.103 Overall, a significant positive effect is expected. This is likely to be long-term and permanent.

SA Objective 5a. Historic environment and SA Objective 5b. Undesignated heritage assets

6.104 The delivery of the scale of new growth proposed over the plan period in line with the EPS, towards the urban fringes of Bristol, is likely to have implications for the settings of heritage assets. Although heritage assets are distributed throughout South Gloucestershire, there are concentrated areas of heritage assets within the urban areas. The effects are to some extent uncertain until the exact scale and location of development is determined. However, within the Strategic & Major Site Delivery policy there are a number of measures which are designed to ensure the design and implementation of a major development do not adversely impact the surrounding area.

6.105 Overall, a potential but uncertain minor negative effect is identified. This is likely to be a long-term and permanent effect.

SA Objective 5c. Biodiversity, SA Objective 5d. Landscape and SA Objective 5e. Green infrastructure

6.106 The scale of development proposed through the Local Plan could result in adverse effects on biodiversity, including as a result of habitat loss, fragmentation and disturbance as well as the displacement of species as a result of construction and human activities once development is occupied. The EPS would likely limit negative effects on biodiversity due to efficient land use associated with increased opportunities for brownfield development in urban areas. It is noted that there are also a number of opportunities along the East Fringe for development to create and enhance access from the urban area into

the countryside by protecting and connecting existing green infrastructure assets such as woodland and common land. However, denser development within urban areas could increase pressures on open green spaces. The EPS may therefore have a negative effect on South Gloucestershire's urban green infrastructure network, landscape and biodiversity. Whilst the EPS focuses development on the urban edge, it also encourages a dispersed pattern of development across the authority, reducing the potential for cumulative adverse impacts on biodiversity, green infrastructure and the landscape. A wider distribution of development does potentially mean more areas are affected especially since South Gloucestershire's rural areas contain many natural assets and landscape designations which may be affected. Notably, the EPS designates sites in the Cotswolds National Landscape, which may cause harm to the character and appearance of the area. However, the Climate Change Mitigation, Adaptation and Resilience policy states that green and blue infrastructure should be incorporated into the design of new developments, which could provide valuable new habitats to support local biodiversity. Similarly, the Strategic & Major Site Delivery policy requires development proposals to demonstrate green infrastructure possibilities during the outline application stage, to ensure that it is incorporated into the master planning process.

6.107 Overall, a mixed minor positive and minor negative effect is expected. This is likely to be a long-term and permanent effect.

SA Objective 5f. Land use and SA Objective 5g. Agricultural land

6.108 The scale of development proposed through the Local Plan will inevitably result in the loss of greenfield land. However, the EPS includes a focus on providing urban extensions to Bristol. There is a high proportion of Grade 3, and corridors of Grade 2 agricultural land within the area. The development proposed would likely lead to the loss of best and most versatile agricultural land, particularly because the EPS would rely on urban extension allocations to accommodate large scale growth. It is noted, however, that market town and

urban development may offer more opportunities for brownfield land use. Whilst more distributed development would reduce the pressure on some urban areas, it would see some development in South Gloucestershire's rural areas, which would likely lead to the loss of agricultural land and greenfield land. Policies Climate Change Mitigation, Adaptation and Resilience and Embodied Carbon require developments to use land sustainably and to prioritise the renovation or retrofit of existing structures as part of using land efficiently.

6.109 Overall, mixed significant negative and minor positive effects are expected. This would be long term and permanent.

SA Objective 5h. Tidal/fluvial flooding and SA Objective 5i. Surface water flooding

6.110 Much of the western part of South Gloucestershire is affected by higher levels of flood risk, particularly because of the Severn Estuary where extensive areas of Flood Zones 2 and 3 are present. A number of the sites proposed for allocation in line with the EPS in Severnside and the Market Towns of Yate and Thornbury fall within higher risk flood areas. Development in these areas could increase the risk of flooding and impermeable surfaces. Additionally, all urban areas within South Gloucestershire are designated as areas susceptible to ground water flooding. However, the sites that fall within the eastern part of South Gloucestershire are outside of these higher flood risk areas.

6.111 Policy Strategic and Major Sites Delivery requires development proposals to consider Green Infrastructure incorporation during pre-application stage, which could include important SUDs features which would help alleviate any flooding.

6.112 Overall, a significant negative effect is expected. This would be permanent and long-term.

SA Objective 5j. Water quality and quantity

6.113 The scale of development that would come forward under the EPS would result in an increased demand for water consumption; however it is possible that new development would be designed and built to high standards of efficiency. The broad location of development will not have significant impacts on water availability although more concentrated patterns of development may focus demand in smaller areas, exacerbating potential negative effects.

6.114 Overall, a significant negative effect is expected. This would be permanent and long-term.

SA Objective 6a. Waste

6.115 Development as part of the EPS will result in the generation of waste, both in construction and operation; however this will not be influenced by the broad spatial distribution of development. Waste management practices are largely dependent on peoples' behaviour and the design of development. However, the Embodied Carbon policy includes an emphasis on waste reduction being designed in from project inception to completion. This includes re-use and recycling of materials whenever possible and minimisation of waste.

6.116 Overall, a mixed minor positive and significant negative effect is expected. The effects from construction would likely be short term, but the generation of waste could have long term effects based on people's behaviours.

SA Objective 6b. Minerals

6.117 Development as part of the EPS will result in the use of raw materials, however this is not influenced by the spatial distribution of development. While the Minerals policy makes provisions for the extraction of crushed rock at

Cromhall Quarry, Tytherington Quarry south-west and Wickwar Quarry northwest, it also encourages the provision of recycled aggregates within the policy.

6.118 Overall, a mixed significant negative and minor positive effect is expected.

Chapter 7

Monitoring

7.1 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.

7.2 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.

7.3 Given the 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.

7.4 Table 7.1 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 and may change

when South Gloucestershire Council prepares an updated monitoring framework for the Local Plan.

7.5 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.

Proposed Monitoring Framework

SA Objective 1a. Climate change mitigation

- Per capita CO2 emissions in South Gloucestershire.
- 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.

SA Objective 1b. Climate change adaptation

- Proportion of planning permissions for large residential and employment developments incorporating SuDS.

SA Objective 2a. Public open space

- 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.

SA Objective 2b. Noise

- Appeals won/lost where PSP8 – Residential Amenity was a material consideration.

SA Objective 2c. Air quality

- 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.

SA Objective 2d. Access to healthcare services

- 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 3a/3b. Housing

- 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.

SA Objectives 3c/3d/3e. Access to community facilities, education and retail

- 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 Use **[See reference 14]**.
- 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.

SA Objective 3f. Deprivation

- 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.

SA Objective 3g. Digital connectivity

- No. of permissions granted for new telecommunications infrastructure.
- No. of new dwelling with access to super/ultrafast broadband.

SA Objective 4a. New employment floorspace

- 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 South Gloucestershire 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.

SA Objective 4b. Access to major employment areas

- 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.

SA Objectives 5a/5b. Historic environment

- 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.

SA Objective 5c. Biodiversity

- 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.

SA Objective 5d. Landscape

- Number of applications granted permission within the AONB or with potential to affect its setting.

SA Objective 5e. Green infrastructure

- Number of trees given Tree Preservation Orders (TPOs).

SA Objectives 5f/5g. Land use

- Amount of best and most versatile agricultural land lost to built development.
- New and converted dwellings on previously developed land.

SA Objectives 5h/5i. Flood risk

- 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.

SA Objective 5j. Water resources

- Number of planning permissions granted contrary to Environment Agency advice on flooding or water quality grounds.

SA Objectives 6a/6b. Waste and resources

- 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.

Chapter 8

Conclusions

8.1 The SA of the South Gloucestershire Local Plan Phase 3 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 3 document.

8.2 The SA of the Phase 3 consultation document builds on the SA work carried out in relation to the Phase 1 and Phase 2 consultations. The Phase 3 consultation document sets out Local Plan objectives, the scale and type of development to be planned for, potential allocations, the Emerging Preferred Strategy (and the alternative 'lenses' considered) as well as infrastructure requirements. The Phase 3 document also includes proposed policy wording in relation to topics including climate change, affordable homes, the economy and town centres.

8.3 Due to the overall scale of development proposed in the emerging Local Plan, adverse effects have inevitably been identified in relation to some of the SA objectives, in particular those relating to the landscape, biodiversity, cultural heritage, flood risk, land use and water. Some of these effects have the potential to be significant. However, the development proposed will meet the identified need for housing within South Gloucestershire and will stimulate economic growth. At the next stage of the SA, further consideration will be given to the cumulative effects of the Local Plan, including the policies to be saved, and in particular considering any cumulative effects on certain settlements.

8.4 The emerging Local Plan is aiming to achieve a balance between housing and employment growth and protecting its environmental assets. Focussing the majority of growth in the urban fringes of Bristol and the Market Towns will maximise access to jobs, services and facilities and sustainable modes of transport. While there is some development proposed in the rural areas of

South Gloucestershire, this will help to maintain the vitality and viability of these areas. Where adverse effects are expected in relation to the policies, the SA has included recommendations for the Council to take into account at the next stage of plan-making.

Next Steps

8.5 This SA Report will be available for consultation between December 2023 and February 2024. Following the consultation on the SA of the Local Plan Phase 3 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

December 2023

Appendix A

Previous Consultation Responses

Scoping Consultation Responses and How they have been Addressed

A.1 Note that references to chapters and appendices in the final column refer to those in the Phase 1 SA Report, which is where the Scoping consultation comments were originally addressed. Changes have been carried through into the relevant parts of this SA report.

Historic England

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Highlights national guidance and good practice on SA/SEA – Sustainability Appraisal and Strategic Environmental Assessment, Historic England Advice Note 8.

Response/How Comment has been Addressed in this SA Report

- 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 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- In relation to the SA framework highlights the following points:
 - 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, and non-designated archaeology which is demonstrably of equivalent significance to scheduled monuments.
 - 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: Designated Assets:
 - 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.
 - 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.

Response/How Comment has been Addressed in this SA Report

- 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that it would be useful for the scoping report to set out the evidence that will be applied to assess significant environmental effects; how cumulative impact will be considered; what indicators will be applied and how mitigation will be informed and suggested.

Response/How Comment has been Addressed in this SA Report

- 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.

Natural England

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 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.

Response/How Comment has been Addressed in this SA Report

- The Council will need to undertake Green Belt assessment work to inform the consideration of updates to the Green Belt boundary in South Gloucestershire. This work will inform the determination of what is considered 'valuable'.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 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.

Response/How Comment has been Addressed in this SA Report

- 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that the following plans and projects relating to the Severn Estuary designated sites(s) may be relevant to the new Local Plan:
 - 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

Response/How Comment has been Addressed in this SA Report

- Reference to the plans highlighted are included in Appendix 3 of this SA Report.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- In relation to the baseline evidence for the SA the following is highlighted:
 - 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.

Response/How Comment has been Addressed in this SA Report

- Appendix 2 of this SA Report presents the updated baseline information for the SA and the information highlighted by the consultee has been included.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The following comments are made in relation to the SA framework and key sustainability issues:
 - Highlights that South Gloucestershire Council is identifying a number of strategically important green infrastructure programmes for parts of South Gloucestershire, 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'. 'Protect and enhance biodiversity and the nature network, including protected sites and species, to achieve a measurable net gain and greater natural resilience' is suggested.
 - Biodiversity is referred to in relation to the effects of climate change, but there are many other potential effects 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.
 - It should be recognised that biodiversity exists and must be protected outside designated sites.

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- It is suggested that there should be an objective relating to suitable artificial lighting alongside noise, vibration and other causes of pollution and disturbance.

Response/How Comment has been Addressed in this SA Report

- The SA will consider details of strategically important green infrastructure programmes in South Gloucestershire where this information is available.
- 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.
- 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 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The following comments are made in relation to the approach of monitoring in the SA:
 - 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.

Response/How Comment has been Addressed in this SA Report

- 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.

Environment Agency

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Notes general support for the SA Scoping Report but suggests a number of updates to the document which are detailed below.

Response/How Comment has been Addressed in this SA Report

- Comment noted and specific comments responded to in cells below.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The review of relevant Plans and Programmes should make reference to the Water Framework Directive (WFD).

Response/How Comment has been Addressed in this SA Report

- The detailed review of relevant plans, policies and programmes in Appendix 3 of this SA Report included the WFD.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 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.

Response/How Comment has been Addressed in this SA Report

- The key sustainability issues for South Gloucestershire 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 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.

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- 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.

Response/How Comment has been Addressed in this SA Report

- The key sustainability issues for South Gloucestershire 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.
- 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.

Issue Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 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.

Response/How Comment has been Addressed in this SA Report

- 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.

Consultation Responses Received in Relation to the Phase 1 SA Report (November 2020) and how they have been Addressed

A.2 Note that references to chapters and appendices in the final column refer to those in the Phase 2 SA Report, which is where the consultation comments on the Phase 1 SA Report were originally addressed. Changes have been carried through into the relevant parts of this SA report.

Historic England

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The reuse of Brownfield, underutilised or unsightly sites within historic places can reknit a fragmented historic settlement and positively reinforce the attributes of that historic place providing a more suitable alternative to sprawl. Cathedral Cities in Peril (Foster and Partners/Historic England/Terence O'Rourke 2015) is perhaps worthy of reference.

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Presently the Sustainability Appraisal suggests a negative effect associated with this form of development; that needn't be the case.

Response/How Comment has been Addressed in this SA Report

- Noted. The methodology used to identify the likely effects of site options on the historic environment is set out in Appendix D.

Natural England

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The Sustainability Appraisal provides a fair and detailed assessment of the sustainability performance of the priorities, building blocks, guiding principles and various policy and locational options for accommodating growth and new development. It identifies a number of aspects that could be strengthened and makes recommendations for subsequent stages of the Local Plan, all of which Natural England would support, particularly with respect to making more explicit the role of GI in addressing the effects of Climate Change and the health benefits of enhancing access to green space and active travel.
- The SA is an important tool for furthering integration of objectives and policies and helping to avoid 'trade-offs' between what can be viewed as conflicting goals.

Response/How Comment has been Addressed in this SA Report

- Noted.

Vistry Homes Limited

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Paragraph 3.6 advises 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. It is disappointing that Climate Change is not already an established policy tool for determining the sustainability of the Local Plan. South Gloucestershire Council has committed to achieve net zero Council emissions by 2030 and area-wide emissions by 2045. The findings of the Council’s baseline Carbon emissions baseline gap analysis indicate that Carbon emissions from domestic, non-domestic properties and transport account for almost all emissions within South Gloucestershire, relatively evenly distributed between these three categories. To achieve South Gloucestershire’s climate change target will require significant reductions in Carbon emissions from transport, a very high take up of electric vehicles and a substantial reduction in mileage. Land use planning will be critical to address the current imbalance between employment and resident workers, to increase the provision of homes close to the major urban areas and the associated services and facilities to achieving long-term, sustained reductions in Carbon emissions from transport.
- Relevant Government policy regarding Climate Change should be taken into account in the preparation of this Local Plan. The Sustainability Appraisal should take into account Policies for the Sixth Carbon Budget and Net Zero (December 2020), in the appraisal of the Local Plan.
- At paragraph 4.20 it anticipates that delivery of potential priority 6 would have a minor negative effect on the SA objectives of 1a) Climate Change mitigation and 2c) air quality. However, at this stage it does not take account of the location of the planned housing which could have a significant influence on the nature of the impact of development on these

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SA objectives; the degree to which the delivery of housing has a positive or negative impact on these SA objectives will be largely determined by the proposed locations for growth. It is unclear how the SA has quantified the impact of potential priority 6 on SA objectives 1a) and 2c) at this stage without knowledge of the planned locations.

- In respect of the appraisal of the Building Blocks, paragraphs 4.37 and 4.38 identify some potential negative effects of noise, pollution and congestion associated with additional development at or adjoining the Bristol North Fringe and East Fringe (Building Blocks 1 and 2), resulting in an uncertain minor negative effect on SA objectives 2b (Noise) and 2c (Air Quality). However, development at market towns and rural settlements (Building Blocks 3 and 4) is expected to perform marginally better against these criteria despite the likelihood of encouraging lengthier journeys, particularly for market towns to the North of the District.
- The Local Plan acknowledges the need to redress issues with congestion and pollution on Bristol urban fringes through the introduction of additional homes close to major employment areas. The introduction of electric cars should also reduce pollution, whilst the delivery of new homes close to the existing urban areas would encourage use of active travel and public transport. Therefore, the net effect of Building Blocks 1 and 2 on SA objectives 2b and 2c should present more positive outcomes than currently indicated by Table 4.4.
- Paragraph 4.42 highlights the existing connectivity issues and physical barriers presented by major roads in existing urban areas, together with the need for investment in open space. The SA should recognise that Building Block 2 could provide opportunities to unlock existing barriers, establish new connections between existing urban areas and provide access to or provision of new/existing public open space and sports facilities. The connectivity issues highlighted by the SA could be resolved through the development of undeveloped land within the Green Belt and Bristol North Fringe.
- We support the overall recommendations at paragraph 4.65 and 4.66 which set out the approach to be taken to appraising suitable development options within the Green Belt through Building Block 2. In addition to

addressing the current imbalance of jobs and homes and the capacity of services and facilities, the Local Plan should also consider the potential of development to enhance connections between existing urban areas, services and facilities, particularly through the delivery of green infrastructure corridors which could encourage walking and cycling to the wider benefit of the area.

Response/How Comment has been Addressed in this SA Report

- Noted. The SA framework against which all policy and site options are appraised features two SA objectives directly addressing climate change. The comments will be addressed as appropriate at the next stage of the SA although the appraisal work in relation to the Building Blocks has to some extent been superseded by the appraisal work relating to the Phase 2 Local Plan.

Redrow Homes (SW)

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that they consider it essential for legibility, that a weighting system be applied to the SA assessment to aid legibility for the general public. If this is done and accepting the SA conclusions in respect of the 5 'building blocks' the most sustainable options for development include the reuse of underused land within existing urban areas and urban extension to Bristol.
- Concerns remain that the document presented, whilst headed in the right direction, is still overly complicated and confusing to the general reader. The process being adopted in the SDS is far more simplified and we feel it would help SGC make decisions about where to locate development if this approach were adopted as part of the Local Plan preparation.

Response/How Comment has been Addressed in this SA Report

- Noted. The SA does not weight the various sustainability topics addressed within the assessment as this would result in undue weight being given to certain topics which is not justified or required in the SEA Regulations.

Bristol and England Properties (BEP) and Ivywell Capital (IC)

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Paragraph 3.27 acknowledges Green Belt as a planning consideration, but not a specific sustainability issue that needs to be addressed through the SA. Indeed, the Green Belt designation and desire to protect it is often a barrier to delivering sustainable development. Green Belt land is often among the most sustainably located land within a District and its release has the potential to make a significantly greater contribution to the wider objectives and guiding principles of the Plan.
- It is important that any SA of development options needs to be 'policy off' in Green Belt terms because whether land is or is not designated as such is essentially irrelevant in sustainability terms. This is why we have concerns with the SA's conclusion that the loss of Green Belt land may have a minor adverse impact in sustainability terms on the basis that it supports the optimisation of development density and Brownfield sites (paragraph 4.18). Green Belt releases are only considered once all other reasonable alternatives have been considered, including how development within existing urban areas can be maximised. Whether Green Belt land is released or not, has no real bearing on the extent to which Brownfield sites are maximised.

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- Development of Green Belt land is not inherently more or less sustainable than the development of non-Green Belt land and so it should not factor into the SA. The significant adverse impacts of the five building blocks to the Green Belt identified in Table 4.4 of the SA are essentially irrelevant for the purposes of assessing sustainability.
- Table 4.7 summarises the sustainability effects of options for growth at rural communities in the context of the Green Belt. The fact that Option 2 would have a significant adverse impact on the Green Belt, compared with a minor positive impact of Option 1 is irrelevant for the purpose of the Sustainability Appraisal. What is important is that Option 2 performs as well or better against all of the other SA objectives. It does not appear that the consideration of impacts to the Green Belt have affected the SA's recommendations and we note its support for the exploration of Green Belt releases to meet the District's development needs.

Response/How Comment has been Addressed in this SA Report

- Noted. As has been recognised, the SA does not make recommendations about the release of Green Belt land.

Ashfield Land

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- There were significant issues with the Sustainability Appraisal that supported the JSP. The primary issue was that the detailed version was undertaken after the Spatial Strategy and certain sites were selected, meaning the strategy was not justified by the evidence base.
- We are pleased to see that the Issues and Approaches consultation document is accompanied by two SA Reports (SGC and LUC Report)

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which indicates that this assessment is being considered at an early stage within the Plan-making process.

- We have examined both SA Reports and have some comments and. Firstly, the SA focuses on the appraisal of the 'Building Block' options that the Local Plan is considering. However, these are in effect Spatial Strategies as we set out in the previous section and we have questioned whether it is appropriate that these are determined at the Local Plan, rather than the SDS level.
- Secondly, we have concerns over paragraph 2.10 of the LUC Report. We disagree with this approach; as we previously demonstrated as part of evidence connected to the JSP, it is possible to provide a ranking system by applying a simple weighting value to each of the effects identified as part of Figure 2.1 of the LUC report. This will then give a ranking system that is easy for the public to relate to. If the other factors, such as those identified in para 2.10 of the LUC report, then justify why the highest ranked option has not been pursued, these can then be set out in clear and understandable terms. However, this is no reason to not present a ranked system as described, otherwise we question why rate each effect in terms that grade their positive or negative benefits.
- The SA should inform the Plan-making process and Planning Practice Guidance (PPG). Whilst we agree that there are other factors at play, the key aim of Plan-making is to ensure that sustainable patterns of development are delivered. The SA ranking will set out, in SA terms, which option should be selected to achieve this.
- We have undertaken an assessment of the 'Building Blocks' within the new SA with the weighting system. This can be found in Figure 5 of these representations and shows that following the Building Block 1 and Building Block 2 is the most sustainable option for development.
- Questions why public opinion would be a reason to ignore the most sustainable strategy on its own; often development is unpopular and simply saying the negative public option will sway such decision making is very concerning.

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- We have concerns over certain aspects of the Framework and the effect criteria set out. Why have objectives and effects (Objectives 1a, 1b, 2c, 3a, 5b, 5d, and 7a) yet to be determined in Table 5A of the SGC Scoping Report, particularly as this information is very similar to the SA Scoping Report that was published in 2018 as part of the original Local Plan Review. Some tables have printed incorrectly and can't be viewed in full.
- It states in paragraph 2.30 that '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.' There is no explanation of how the Phase 1 document has been assessed against the sustainability objectives, and this leads us to question how the SA work undertaken by LUC could have assessed the effects of the policy options presented in the Local Plan Phase 1 document, other than via subjective assessments.
- The LUC Report states '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.' It is unclear whether the SA has been influenced by other decisions unknown to the reader; the SA should be an independent, objective assessment with a clear set of criteria that proposals are assessed against.
- We have concerns over the scoring system used. The Scoping Report published in support of the new SDS has been simplified and a new scoring system has been proposed as set out in Figure 3. This is much easier to understand for the general reader and we question why this approach couldn't be used for the SGC Local Plan. Again, a simple weighing system could be applied to the SDS criteria. Table 4.4 of the SA Report, contains a more complicated scoring process used in the JSP by incorporating other symbols which aren't set out in the Scoring Key. This method contributes to confusion and could be easily simplified. The importance of this point has been emphasised by the Courts at the highest level. For example, *Berkeley v SSETR* [2001] 2 AC 603, the Housing of Lords stated that it must be compiled in a way that is easily understood by the lay person.

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- The SA needs simplified for the next stages of consultation and an alternative, simpler assessment system to which a numerical weighting is applied.

Response/How Comment has been Addressed in this SA Report

- Noted. A ranking system is not used in the SA for the reasons previously described – the purpose of the SA/SEA is to identify likely significant effects and any attempt to numerically tally the likely effects of an option across the objectives could result in significant effects being ‘masked’.
- Comparisons with the SA of the SDS are noted; however that is a separate plan which is subject to a separate appraisal process against a different set of objectives, as explained in this report.

South West Strategic Developments (SWSD)

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- In respect of the Spatial Strategies that WECA assessed, all that was required was a sensible way of weighting the various objectives that the SA assessed. We did this and presented it in our evidence. The WECA conclusions are accepted there was a clear ‘winner’ in terms of the Spatial Strategy that should have been selected. The SDS and SGLP should be considering this Spatial Strategy as the primary option for accommodating growth, unless circumstances have changed to justify a different approach being taken. However, since the SA was undertaken as part of the JSP process, circumstances such as the Climate Change emergency and behavioural and economic patterns caused by the pandemic add further weight to the proposition that this strategy was.

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- There were significant issues with the Sustainability Appraisal that supported the JSP. The primary issue was that the detailed version was undertaken after the Spatial Strategy and certain sites were selected, meaning that the strategy was not justified by evidence base. We are pleased to see that the Issues and Approaches consultation document is accompanied by two SA Reports.
- Figure 3 is much easier to understand for the general reader compared to the scoring key replicated in Figure 4 and we question why this approach couldn't be used for the SGLP.
- We disagree with the statement in Paragraph 2.10 of the LUC Report. It is possible to provide a ranking system by applying a simple weighting value to each of the effects. This will give weighting to each scenario that is easy to understand.
- From Table 4.4 of the report replicated below, with the exception of including our weighted system, it appears that the SA has begun to slip back into the more complicated scoring process used in the JSP by incorporating other symbols which aren't set out in the Scoring Key aiding confusion.
- Following the intensification of urban areas (Building Block 1), urban extensions to Bristol (Building Block 2) would be the most sustainable option for growth and should receive the highest proportion of housing growth. WGC neatly fits in with this strategy and should be a preferred option for consideration in the next stage of the SGLP preparation.
- We urge SGC to ensure that, whilst taking public opinion into account in defining a strategy, this will not be the sole defining factor for determining growth for the next 20 years in the sub-region. During the JSP process there appeared to be limited public objection to the proposals for WGC.
- We are concerned that other influences are already coming into the SA process, It is unclear whether the SA has been influenced by other decisions that the reader doesn't know about and would welcome confirmation in the next stage. Paragraph 2.30 states that '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

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2020 Phase 1 document, the criteria have not been used for the appraisal work included in this SA Report.’ There is no explanation of how Phase 1 document has been assessed against the sustainability objectives, and this leads us to question how the SA work undertaken by LUC could have assessed the effects of the policy options presented in the Local Plan Phase 1 document, other than via subjective assessments.

- Table 5A of the South Gloucestershire Scoping Report sets out the objectives and effects that will be used, albeit we note that in several instances these are still yet to be fixed, and on certain pages the tables have printed incorrectly and can’t be viewed in full. We query why these are yet to be confirmed, particularly as this information is very similar to the SA Scoping Report that was published in 2018 as part of the original Local Plan Review. These need to be defined as soon as possible to allow for objective analysis to be undertaken.
- We strongly urge SGC to consider an alternative, simpler assessment system to which a numerical weighting is applied. The importance of this point has been emphasised by the Courts at the highest level. For example, in *Berkeley v SSETR* [2001] 2 AC 603.

Response/How Comment has been Addressed in this SA Report

- Noted. A ranking system is not used in the SA for the reasons previously described – the purpose of the SA/SEA is to identify likely significant effects and any attempt to numerically tally the likely effects of an option across the objectives could result in significant effects being ‘masked’.
- Comparisons with the SA of the SDS are noted; however that is a separate plan which is subject to a separate appraisal process against a different set of objectives, as explained in this report.

Ellandi LLP On Behalf of Crestbridge Corporate Trustees Ltd and Crestbridge T...

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Using the scoring matrix within the Sustainability Appraisal Framework in Table 4.6 , we have undertaken our own appraisal of the proposed allocation of Yate Town Centre for redevelopment should this be pursued in accordance with the Place Making Principles.

Response/How Comment has been Addressed in this SA Report

- Noted.

Newland Homes – Land West of The B4061 Bristol Road; Newland Homes – Land at Aust Road Strongvox Homes; Ivywell Capital (IC); Edward Ware Homes and Terry Chamberlain and Alan Jobbins

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Paragraph 3.27 acknowledges Green Belt as a planning consideration, but not a specific sustainability issue that needs to be addressed through the

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SA. Indeed, the Green Belt designation and desire to protect it is often a barrier to delivering sustainable development. Where Green Belt constrains development around an urban area with development pressures, development is simply pushed further away from the centre leading to longer commuting times, dormitory settlements, and less sustainable patterns of development. Green Belt land is often among the most sustainably located land within a District and its release has the potential to make a significantly greater contribution to the wider objectives and guiding principles of the Plan.

- We understand that the Council has included the protection of the Green Belt as an objective to be assessed through the SA, with a view to understanding how the various building blocks would contribute to its protection. It is important that any SA of development options needs to be 'policy off' in Green Belt terms because whether land is or is not designated. This is why we have concerns with the SA's conclusion that the loss of Green Belt land may have a minor adverse impact in sustainability terms on the basis that it supports the optimisation of development density and Brownfield sites (paragraph 4.18). Green Belt releases are only considered once all other reasonable alternatives have been considered. As such, whether Green Belt land is released or not, has no real bearing on the extent to which Brownfield sites are maximised.
- Development of Green Belt land is not inherently more or less sustainable than the development of non-Green Belt land and so it should not factor into the SA.
- The significant adverse impacts of the five building blocks to the Green Belt identified in Table 4.4 of the SA are essentially irrelevant for the purposes of assessing sustainability. This is also the case at Table 4.7. The fact that Option 2 would have a significant adverse impact on the Green Belt, compared with a minor positive impact of Option 1 is irrelevant for the purpose of the Sustainability Appraisal. What is important is that Option 2 performs as well or better against all of the other SA objectives.
- It does not appear that the consideration of impacts to the Green Belt have affected the SA's recommendations and we note its support for the

exploration of Green Belt releases to meet the District's development needs.

- We are slightly concerned that in assessing the building blocks, significant adverse impacts have been noted on the basis of development coming forward in relatively specific locations. For example, we note that a significant adverse impact has been noted for development at Market Towns on the basis that development around Thornbury would lead to the loss of Grade 2 agricultural land (paragraph 4.58). However, land around other market towns (such as Yate) is generally poorer quality and so a strategy which sought to bring development forward at Yate but not Thornbury would have a lesser impact. We would expect the SA to be updated to reflect this as the spatial distribution strategy develops.

Response/How Comment has been Addressed in this SA Report

- Noted. As has been recognised, the SA does not make recommendations about the release of Green Belt land.

Barwood Development Securities & The North West Thornbury Landowner Consortium

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- 1a (Contribution to Climate Change):
 - It is unclear why Building Block 3 has been given a similar score to Building Block 4 as they are completely different in terms of their services/facilities, and employment opportunities and thus associated opportunities for sustainable travel.

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- The reference in paragraph 4.39 to Thornbury and access to Enterprise Areas is incorrect (bus service T1 provides direct access to Filton Enterprise Zone in less than 20 mins).
- There is no explanation why a new settlement (Building Block 5) would score better than the existing Market Towns. Whilst any new settlement would be required to deliver community facilities and the scale of development already at Market Towns is very questionable. Thus, whilst recognising that it will deliver benefits, in terms of its assessment against Objective 1a), it cannot be considered to be more positive than development Market Towns.
- 2c (Air Quality) and 2b (Noise):
 - It is of concern that Building Block 3 scores comparably to rural development in this regard. A dispersed strategy of smaller scale growth is likely to have a greater impact, particularly on air quality, than planned larger scale growth at the Market Towns.
- 2a (Public Open Space):
 - Paragraph 4.42 indicates that the Market Towns have some existing public open space, and it is thus scored a minor positive. In regard to Building Block 4 (scored positively) because it has access to the countryside, and Building Block 5 because it will enable the delivery of new public open space. Both of these positive attributes are equally applicable to Building Block 3, and we would suggest a scoring of ++.
- 2d/3c/3d/3e (Access to health, education, community, and retail):
 - No commentary is provided in respect to the scores attributed to Building Block 3. We note that in relation to Building Block 2, reference is made to the scale of development providing opportunity to deliver new services/facilities; scoring positively. There is no indication that large-scale development via Building Block 3 would not also secure new services/facilities. Differentiation is expected between building block 3 and 4 when assessed against this objective.
- 4a (New Employment Floorspace):

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- We do not consider that there is justification for scoring Building Block 5 higher. Building Blocks 2 and 3 equally capable of delivering large scale employment.
- 5a and 5b (Historic Environment):
 - It is impossible to robustly test such broad spatial strategies against the impact that they would have on designated and undesignated assets. This objective should be applied at the next stage.
- 5e (Green Infrastructure):
 - It is unclear why Building Block 3 has been scored lower than 2 and 5. It may be equally capable of delivering green infrastructure at the scale of the other two. It is incorrect to assess Building Block 3 as the same as Building Block 4.
- Green Belt:
 - The inclusion of a single objective within the SA doesn't constitute a robust assessment.

Response/How Comment has been Addressed in this SA Report

- The SA work for the Building Blocks has to some extent been superseded by the work now set out in this report; however these points will be considered as appropriate at the next stage of the SA.

B N P Paribas Real Estate

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that further depth of Green Belt review and development in flood defence areas.

Response/How Comment has been Addressed in this SA Report

- Noted.

Nexus Planning Limited

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- State that they are supportive of Building Block 2 which relates to expanding the main urban areas through urban extensions. With regard to the Block 2 assessment outcomes, we make the following comments:
 - The Biodiversity (5C) outcome for Block 2 (and also Blocks 3, 4 and 5) is a double negative/uncertain. However, not all greenfield land is undisturbed and biodiversity rich. The Lower Shortwood site has been intensively managed and has limited biodiversity value. Not all urban edge locations are within proximity or will have an impact on SSSIs. The Lower Shortwood Site is one such example. The Biodiversity (5c) outcome for Block 2 appears wholly unjustified and should be minor negative/uncertain outcome.
 - The land use outcome (5f/fg) – it is unclear why Building Block 2, 4 and 5 achieve a double negative outcome whereas Building Block 3 achieves a single negative outcome. Building Block 3 should achieve the same Sustainability Appraisal outcome as Building Block 2, 4 and 5.
 - Green Belt (7a) – The rationale for assessing Building Block 3 to only have a minor negative outcome is that part of the land around the three market towns outside of the Green Belt. However, given the uncertainty regarding the location of any development under Building Block 3 would ultimately go we consider the outcome should be at least double negative/uncertain.

Response/How Comment has been Addressed in this SA Report

- The SA work for the Building Blocks has to some extent been superseded by the work now set out in this report; however these points will be considered as appropriate at the next stage of the SA.

Lightwood Strategic

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- SA Objective 4a:
 - It is ill conceived to attribute a significant positive effect on development that provides 1ha of employment land. On this basis a 3,000-unit new settlement would get a significant positive score for only planning for 1ha of employment land. The effect of this will be to automatically externalise many travel to work trips.
 - More thought is needed and standalone employment land needs to be considered differently to employment land in mixed use sites.
 - The evaluation system is probably ok for stand-alone sites, but we suggest that a ratio-based approach is needed for Buckover and Charfield. If the ratio of employment land/jobs to housing is too low then the gross benefits of providing 'some' land will be undone by the net externalities of offsite travel. A two staged approach is needed for these large mixed use sites/locations. The gross effect should be assessed but the net effect should also be assessed on this basis of a jobs per home gradation system. It especially important to apply this think to sites far furthest from key employment areas.
- SA Objective 4b:

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- There is a mismatch between the Accessibility profiling methodology and the SA methodology in respect of bus travel. It's confusing to have two separate standards. The Council needs to pick a consistent scale and threshold to evaluate Spatial Strategy and site options. The SA has to be fed by the Council's access profiling. To combine approaches the following scale should be used, and the assessment should have regard to relative performance versus car travel times during rush hour and costs.
- The combined approach balances to propensity for slightly longer trips (time) to be more acceptable for commuting trips, especially to major employment hubs, that access to more local services. At present the SA framework applies the same performance regime to determine for all land uses.
- In respect of major employment locations, it is not very clever if a location/site is to be assessed in an SA context solely on the basis of its accessibility to at least the nearest existing or planned major employment centre, or whether a braider will be undertaken based on accessibility to the full range of key employment locations. The proposed methodology for assessing the accessibility credentials of sites in the SA does not capture the likely residual tailpipe Carbon emission of locations. Thus, whereas the 'effects criteria' for site appraisal work notes, in respect of SA Objective 1, that NB: Greenhouse Gas emissions associated with travel were covered under another SA objective, the SA framework, by virtue of its methodology does not actually achieve this. All it does is assess accessibility by Public Transport, but that is not the same thing as assessing Greenhouse Gas emissions with a site. This can only be determined by looking at the residual car-based trips. By this method one can assess the Carbon emissions performance of a location on a like for like (per trip basis).
- Focusing, on residual tailpipe Carbon emissions for travel to work trips as an indicator of a site's Carbon sustainability provides the Council with actual data on the actual Carbon credentials of those sites.
- SA Objective 5c:

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- The GIS/distance-based system of 5c regarding ecology is lazy compared to the analytical and discussive method of 5b.
- SA Objective 5g:
 - ‘Significant Negative’ effect is reserved for Grades 1 and 2 only, but 3a is also best and most versatile agricultural land. There is no distinction the national policy approach.
 - 3a and 3b need to be separated with 3b receiving a minor negative effect. The Council needs to ask landowner/developers to survey to prove their grading.
 - We agree with the approach for Grade 4 and 5.
- SA Objective 7a:
 - Green Belt should not be an SA objective. It is another layer of policy consideration, with a Green Belt review to be read alongside the SA. A composite Plan-making assessment will be needed.

Response/How Comment has been Addressed in this SA Report

- Comments are noted. The SA criteria for the site options are considered appropriate to determine the likely effects, allowing for differentiation between options of the nature considered. The approach taken is proportionate in terms of the types of sites considered.

Dodington Parish Council

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The Parish Council were not in a position to comment further. They understand that when the Plan is inspected this area will be scrutinised and the Parish Council are satisfied with that.
- Members recognise that some of the 'key evidence' is under development. Dodington Parish Council have commented extensively and played an active role with the Yate Town Improvement Masterplan consultation. Members are keen to know how the timelines of these developing studies are going to fit into the Local Plan going forward.

Response/How Comment has been Addressed in this SA Report

- Noted, comment is outside the scope of the SA.

Falfield Parish Council; Emma Jarvis

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Table 4.4:
 - Disagree 1a and 2c for BB5 is ++/-- Climate Change and air quality. Disagree with significant positive as remote satellite villages will increase travelling to the main town and city centres.

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- Disagree 2d for BB5 is ++/-- access to healthcare. How can a place which does not exist be given a double positive for an unknown access to healthcare? It should be ?/--. A location on the edge of the County would be severely remote from regional A&E facilities.
- Disagree 5e for BB5 is ++? for green infrastructure. Losing green fields to development cannot be seen as a positive.
- States that:
 - Table 4.6. The market town of Chipping Sodbury should be added to this list.
 - Some of the appendix maps are illegible, poor quality and pixelated.
 - Appendix 4 Table. 5 – There is no uncertainty in the loss of Grade 3 agricultural land. We need to make the most of our good quality land for growing food locally. It is a Significant Negative.
 - Appendix 4 Table 7a – This is not necessarily a significant negative. The green belt could be expanded outwards along the outer edges freeing up strips of developable land on the inside but with no total loss of Green Belt area.

Response/How Comment has been Addressed in this SA Report

- Noted, comment relates specifically to the content of the Phase 1 SA Report and will be addressed as appropriate at the next stage of the SA.

R. Brown and Lesley Brown

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Stage A: Scoping:

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- The inaccuracies that had previously been pointed out during consultations had not been corrected in the SAs.
- Pleased to see that if an equal number of positives and negatives are identified public opinion and conformity will be taken into account.
- Sustainability Appraisal findings for the policy options:
 - Building Block 4 says that development has the potential to impact on SSSIs. However, Winterbourne Railway Cutting and Barnhill Quarry are already close to housing.
- Options for growth at rural communities in the context of the Green Belt:
 - This puts forward sites identified during previous Calls for Sites, up to 200 metres from urban areas. Surely if a site is so close to an urban area this risks potential coalescence.
 - Option 1. Coalpit Heath is in the Green Belt contrary to its listing.
 - Objective 5a/5b fails to mention the Coalpit Heath Scheduled Monument at Ram Hill Colliery.
 - Building both within and outside of the Green Belt conflicts with the aim of asking the public for their views.
- Appendix 2:
 - The Employment type table shows a grand total loss of 9,400 sqm office space. This doesn't have such significance due to the current trend of home working.
- The SAPs which have provided the basis for the current DAPs were inaccurate in many areas. This was pointed out during the 2018 consultation, the Profiles have not been corrected.

Response/How Comment has been Addressed in this SA Report

- Noted, comment relates specifically to the content of the Phase 1 SA Report and will be addressed as appropriate at the next stage of the SA.

Richard Bentham

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Please promote motorcycles as a mode of efficient, low pollution, less congested commuting. Motorcycles are a quick win to reduce emissions and congestion.
- Provide secure parking and promote awareness with roadside poster campaign.
- Cycling is not always a suitable option for commuting to areas too far by walking.
- The Ring Road is very congested with cars and the cycle path has a poor crime record in East Bristol.

Response/How Comment has been Addressed in this SA Report

- The SA assesses options for policies and site allocations against SA objective 1a: Contribution to climate change, which takes into account how well proposals will promote modal shift away from car use and toward cycling, walking and public transport use. The relative emissions of different vehicle types lies outside of the scope of the SA.

Fi Riches

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Whilst a good idea in theory – how many man hours are spent stating, in most cases, the bleeding obvious.

Response/How Comment has been Addressed in this SA Report

- Noted.

Adam Gould

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- In Table 3.1, there is limited acknowledgment or recognition that there are areas of villages which are in the Green Belt and outside the settlement boundary but are exactly the same as the rest of the village (Frampton Cotterell) in terms of development and connectivity.
- Consideration needs to be given to refreshing settlement boundaries and Green Belt in order to protect inappropriate development but to also acknowledge areas which are already developed.

Response/How Comment has been Addressed in this SA Report

- Table 3.1 sets out the current key sustainability issues for South Gloucestershire – this point is outside of the scope of that table.

Julia Bernau

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that a wide number of people as possible need to be involved.

Response/How Comment has been Addressed in this SA Report

- Noted.

Lynette Thoburn-Perrett

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- States that Wickwar has few amenities and very poor infrastructure making it an unsuitable location for development.

Response/How Comment has been Addressed in this SA Report

- Noted.

Ann Fray

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Please stand by proposals you put in place.

Response/How Comment has been Addressed in this SA Report

- Noted.

Rebecca Woodward

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Sustainable development has to be at the core of this strategy. Whilst appreciating housing numbers are required, surely it is also nature and location. Emphasis on affordability in relation to housing is essential. New developments is destroying our countryside and impacting on rural communities. Car dependent developments should be refused. Our rural roads are becoming increasingly congested requiring traffic calming measures to be adopted which further destroy the nature of rural

communities. Not every residential area has to be large, amorphous and devoid of green space.

Response/How Comment has been Addressed in this SA Report

- Noted.

Amy Gould

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Within Table 3.1 there is limited acknowledgment or recognition that changes to settlement boundaries are required to direct development to areas of the village which have been artificially excluded from development due to inappropriate settlement boundaries (e.g. they are not based on methodology held by SGC. and are counter to any methodology adopted by any settlement reviews undertaken by neighbouring Councils).

Response/How Comment has been Addressed in this SA Report

- Table 3.1 sets out the current key sustainability issues for South Gloucestershire – this point is outside of the scope of that table.

Mr. A. D. England

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Option 1 and Option 2 offers varying levels of access to key services/facilities. Locations included in Option 2 would help achieve benefits relating to good access and Climate Change mitigation. These locations have relatively good existing service provision and are located on key bus routes.
- It is clearly evident that a proportion of the 59 settlements listed for review are relatively isolated with limited facilities. Development at these locations could cause detrimental harm and it is critical that the SA process is used to inform and eliminate such settlements from further review due to their lack of sustainable accessibility.

Response/How Comment has been Addressed in this SA Report

- Noted, comment relates specifically to the content of the Phase 1 SA Report and will be addressed as appropriate at the next stage of the SA.

Consultation Responses Received in Relation to the Phase 2 SA Report

(February 2022) and how they have been Addressed in this SA Report

Avison Young

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The comments set out below relate to the SA scoring of Site Option SG414: Land on the North East Side of Old Gloucester Road, Hambrook.
 - In relation to SA Objective 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, it is noted that the site forms part of the allocated East of Harry Stoke New Neighbourhood which benefits from permission for significant development, recreational space and infrastructure. When considering the development of this area over the plan period, the site will have excellent access to public open space (both in terms of quality and quantity). The site should be appraised as ++ against this criteria.
 - In relation to SA Objective 2b: Minimise the impact of noise on sensitive receptors, Avison Young states that initial noise appraisal of the site indicates that, despite its location adjacent to the M4, through an appropriate design layout and acoustic barriers/insulation, the amenity of occupants of residential development within the site could be adequately protected. It is relevant to note that a nearby site adjacent to the M4 to the south, east of Players Close, was granted planning permission P19/7772/F subject to acoustic mitigation demonstrating an acceptable design solution is achievable. Site SG414 should therefore be appraised as 0 against this criteria.
 - Regarding, SA 2d: Achieve reasonable sustainable access to healthcare services and facilities (Doctors and Dentists), the site forms

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part of the allocated East of Harry Stoke New Neighbourhood which benefits from planning permission for significant residential development, health and community facilities, and infrastructure. When considering the development of this area over the plan period, the site will have excellent access to healthcare services and facilities and public transport (including accessibility to bus routes M1, T1 and 19). The site should be appraised as ++ against this criteria.

- In relation to SA 3c: Achieve reasonable sustainable access to community facilities, the site forms part of the allocated East of Harry Stoke New Neighbourhood which benefits from planning permission for significant residential development, health and community facilities, recreational space and infrastructure. When considering the development of this area over the plan period, the site will have excellent access to community facilities and public transport (including accessibility to bus routes M1, T1 and 19). The site should be appraised as ++ against this criteria.
- In relation to SA 3d: Achieve reasonable sustainable access to education facilities, the site forms part of the allocated East of Harry Stoke New Neighbourhood which benefits from planning permission for significant residential development, a primary school and a nursery, and infrastructure. When considering the development of this area over the plan period, the site will have good access to educational facilities and public transport (including accessibility to bus routes M1, T1 and 19).
- Regarding SA 3e: Achieve reasonable sustainable access to retail and food buying services and facilities, the site is forms part of the allocated East of Harry Stoke New Neighbourhood which benefits from planning permission for significant residential development, a mixed use local commercial centre, health and community facilities, recreational space and infrastructure. When considering the development of this area over the plan period, as part of the new neighbourhood the site will also benefit from the delivery of a mixed use local centre comprising commercial uses, together with public transport (including accessibility to bus routes M1, T1 and 19) providing access to further

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facilities/services including at Cribbs Causeway. The site should be appraised as ++ against this criteria.

- In relation to SA 5c: 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, it is stated that initial ecological assessment (Engain, November 2021) notes that the site is of limited ecological value; the site is currently dominated by a species poor, modified grassland which is periodically used for grazing. There is, therefore, an opportunity to improve the contribution the remaining undeveloped land makes to the multi-functional network of spaces and linkages that comprise the Strategic Green Infrastructure network across South Gloucestershire alongside development of the site. The site should be appraised as + against this criteria.
- Regarding SA 5d: Minimise impact on and where appropriate enhance valued landscapes (including the Cotswolds AONB and its setting), given the site's location adjacent to the M4 motorway to the east and when considered in the context of the forthcoming development of the East of Harry Stoke New Neighbourhood, it is anticipated that the development of the site would have a negligible effect on valued landscapes.
- Regarding SA 5e: Deliver a range and quality of, and increased access to new green infrastructure across South Gloucestershire AND protect and enhance existing GI, initial ecological assessment (Engain, November 2021) notes that the site is of limited ecological value; the site is currently dominated by a species poor, modified grassland which is periodically used for grazing. There is, therefore, an opportunity to improve the contribution the remaining undeveloped land makes to the multi-functional network of spaces and linkages that comprise the Strategic Green Infrastructure network across South Gloucestershire alongside development of the site. The site should be appraised as + against this criteria.
- In relation to SA 5f: Promote the conservation and wise use of land, maximising the re-use of previously developed land, while it is

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recognised that the site comprises greenfield land, it is important to note that as part of changes to the settlement boundaries surrounding Bristol brought forward through the South Gloucestershire Council Local Plan Core Strategy, the site was removed from the Green Belt. The site falls within the North of Bristol Urban Area where residential development is appropriate in the context of the Council's overarching spatial strategy. On the basis of this spatial strategy, and the finite extent of previously developed land within the urban areas, it is considered this is an important mitigating factor. As such, the site should be appraised slightly more favourably, as – against this criteria.

- Regarding SA 5g: Minimise the loss of productive land, especially best and most versatile agricultural land, the site is only periodically used for grazing and is not used for arable farming. It is confined in shape and size, separated from other agricultural land by the surrounding highways, particularly the M4 to the north east. Further, as set out above, the land is located within the North of Bristol Urban Area, a key focus for development having regard to the Council's overarching spatial strategy. On the basis of this spatial strategy and the finite extent of previously developed land within the urban areas, it is considered this is an important mitigating factor. As such, the site should be appraised slightly more favourably, as – against this criteria.
- Regarding SA 5i: Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere, development proposals for the site will ensure risks from surface water or groundwater flooding are mitigated. Development proposals will incorporate a sustainable drainage strategy as part of development designs, ensuring the proposals will not increase risk of flooding beyond the site. The site should be appraised as 0 (Negligible effect) against this criteria.

Response/How Comment has been Addressed in this SA Report

- All site options have been appraised in this SA report on a consistent basis using the same criteria and assumptions set out in Appendix D.

National Highways

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- National Highways notes and welcomes the Sustainability Appraisal's reference to:
 - Selecting sites for development based on:
 - Their accessibility to existing and new public transport and active travel connections;
 - Specific highway capacity issues; and
 - Proximity to essential services and facilities to reduce the need to travel;
 - Testing spatial options in terms of their potential contribution to increasing take-up of sustainable travel.
- This will be of heightened relevance when South Gloucestershire Council consider allocating sites for strategic scale growth (assumed to be the basis of a Phase 3 consultation).

Response/How Comment has been Addressed in this SA Report

- Noted.

TRAPP'D (Thornbury Residents Against poorly Planned Development)

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- The first overarching priority is quite rightly “to contribute to zero carbon ambition by 2020...”. The SA documents the component parts of the carbon emissions over time, revealing that the transport component is trending sharply upwards over time.
- Consequently, it is quite correct that table 3.1 highlights that the Local Plan “offers the opportunity 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 reduce the impacts of climate change”. TRAPP'D entirely agree with this conclusion and observe that possibly the single most important decision that an authority can make towards this goal is the location of where people will live relative to where they work and spend their leisure time; to ensure that commuting distance via private car is minimised. Each strategic development location is potentially significantly different from others in that respect. For the most part we would expect that the urban sites evaluated in this SA would score well in this respect; by and large close to significant employment sites and with good access to convenient public transport with a high modal share.
- TRAPP'D therefore find it astonishing that there is no attempt to measure and score the transport CO2 impact of each location assessed. Consequently, the SA ends up in the ludicrous situation whereby with no attempt to evaluate this key indicator, every single location is given the same neutral score. In other words, the single most important overarching priority is not considered at all in shaping the spatial options!
- This cannot be allowed to stand. It would be perfectly straight-forward to assess the transport modal share of any location, together with the

average distance travelled for business and pleasure to derive a score for each spatial option. If the authority fails to do this, particularly when it comes to comparing, say, options within building block five (new settlements) with those within building block two (urban extensions), or even comparing different locations within building block five, then the authority is in danger of promoting spatial decisions that work in counter to the first overarching objective, which objective also happens to be a legal commitment.

Response/How Comment has been Addressed in this SA Report

- The SA site appraisal criteria have been amended in relation to SA objective 1a: Contributing to climate change and 1b: Adaptation to climate change. New development in any location will generate new demands for energy and, consequently, this will lead to increased greenhouse gas emissions and increased contributions toward climate change. However, the extent of this is dependent on the scale of growth and the design of individual developments which is all uncertain at this stage of the plan making process. As such, any scoring in relation to SA objective 1a: Contributing to climate change and 1b: Adaptation to climate change will be considered uncertain at this stage.

Yate Town Council

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Legal validity:
 - Yate Town Council is deeply concerned about the appraisal. It is premature to do a final sustainability appraisal of a plan until there is enough clarity about the plan to be able to evaluate it. Here the plan is

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very vague, and the sustainability appraisal is as a result also very vague.

- By targeting areas and purporting to do the sustainability evaluation before you have all the information risks fettering your discretion and lays the plan open to legal challenge to the one the JSP faced. The identification of areas should follow from the availability of all the evidence including housing numbers, and the Sustainability Appraisal should be part of that fully informed process.
- By putting things in the wrong order, there is a risk that when the evidence does fully become available you will be fitting the evidence to the sites rather than the evidence driving the site selection.
- Without all the evidence being available, it cannot demonstrate it is either transparent or evidence led.
- Accordingly, we are concerned the 'Sustainability Appraisal' may be open to legal challenge.

Response/How Comment has been Addressed in this SA Report

- Sustainability Appraisal is an iterative process and as such an SA report is prepared at each stage of the Local Plan process. The SA Report will not be finalised until it is submitted alongside the Regulation 19 Local Plan for examination.

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Addressing the issues identified in the SA:
 - Yate Town Council want to know what South Gloucestershire is going to do to change its plan in light of those areas where there is a negative

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comment in the SA, an ‘absence of evidence’ issue or where the impact will depend on how the detail is developed.

- The conclusion by the consultant at 7.2 is negative and damning. They conclude “While adverse effects have been identified in relation to some of the SA objectives for some of the site options considered, it is likely that other policies in the Local Plan to be developed further at forthcoming stages of plan making, will help mitigate these”.
- As such they are saying that there are specific proposals which have adverse effects on sustainability. These must be removed, and the concerns addressed AT THIS STAGE, rather than ignoring them in the vague hope something might turn up at a later stage. They have no evidence that it will. They are deeply concerned that at the later stage when the whole story is available, South Gloucestershire will say it is too late and address these issues.

Response/How Comment has been Addressed in this SA Report

- The Local Plan process is an iterative process and therefore monitoring and mitigation factors will be finalised later in the process. However, the SA report includes suggested monitoring indicators for the monitoring of effects of the Local Plan in Chapter 7.

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Uncertainty undermining the ability to deliver an SA:
 - For example, it is impossible to assess the rural areas approach until the villages are allocated to categories, and it is impossible to assess the impact of the Urban Lifestyles approach in the market towns until it can be shown how it relates to the SDS employment and housing allocations. It is unclear how anyone can assess the combined

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sustainability impact of a net loss of employment land in Yate for example, which will force trans greenbelt commuting.

- Yate Town Council feel they cannot make considered responses to it until there is greater clarity about the options in full, but we have some concerns e.g. the document at one point says, 'the site lies outside of the Green Belt so a negligible effect on the green belt is likely'. This fails to understand how the way land either side of the Green Belt is developed has an impact on the continued viability and role of the Green Belt.

Response/How Comment has been Addressed in this SA Report

- As set out above, the Local Plan process is an iterative process, therefore further information and clarity will be provided by the Local Plan in the next stage of the local plan process.

Point Consultancy Limited on behalf of Waddeton Park Limited

Issues Raised in Relation to Sustainability Appraisal (summarised where appropriate)

- Relating to the Sustainability Appraisal, two comments have been made:
 - First, sustainability appraisal is meant to be an independent and challenging process undertaken alongside the preparation of a local plan, and intended to continuously improve the contribution the local plan makes to sustainable development. In this case there is little sign of the sustainability appraisal having challenged emerging ideas in the Local Plan or having had much influence. While the sustainability appraisal will appear to be a comforting read for the plan-makers, there

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is nothing for instance commenting on the absence of the issues we note to be absent from the consultation, when how these come to be dealt with is likely to have significant impact on the Plan's contribution to sustainable development.

- Second, the sustainability appraisal framework includes as a sustainability objective, 'Protect and enhance valuable green belt'. Whilst what 'valuable' means in relation to national policy on green belt is not explained, our point is that sound practice (over several decades now) has established that the objectives in a sustainability appraisal framework must relate to (and only to) the basic elements of sustainable development (soil, water etc). Green belt is a policy, not an essential component of life, and is a wholly political construct, not a basic asset. Generally speaking the operation of green belt policy is directly in conflict with achievement of more sustainable development. Making the protection of green belt in some way supportive of the achievement of sustainable development through the influence that the sustainability appraisal has would have the potential to significantly damage the emerging Local Plan, undermining its ability to be found sound.

Response/How Comment has been Addressed in this SA Report

- The Sustainability Appraisal is an iterative process and feeds into the Local Plan as such. Regarding SA objective 7a, it has been removed from the SA framework as Green Belt is a policy designation and not an environmental or sustainability designation. Therefore, the purposes of the Green Belt are not inherently sustainability issues.

Appendix B

Review of Plans, Policies and Programmes

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

Climate Change Adaption and Mitigation

B.1 Department for Transport, Decarbonising Transport: Setting the Challenge (2020) [See reference 15] – 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.

B.2 Defra, The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate (2018) [See reference 16] – Sets out the strategy for adapting both to the climate change that is already evident, and that which we might see in the future.

B.3 HM Government, The Clean Growth Strategy (2017) [\[See reference 17\]](#) – 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.

B.4 Department for Communities and Local Government, National Planning Policy for Waste (NPPW) (2014) [\[See reference 18\]](#) – 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.

B.5 Defra, Waste Management Plan for England (2013) [\[See reference 19\]](#) – Sets out the measures for England to work towards a zero waste economy.

B.6 Defra and the Environment Agency, Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England (2011) [\[See reference 20\]](#) – 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.

Health and Well-being

B.7 Homes England, Strategic Plan 2023-28 (2023) [See reference 21] – Provides five interconnected strategic objectives to level up communities across England. These strategic objectives together seek the creation of sustainable high-quality homes in well-designed places that reflect community priorities by taking an inclusive and long-term approach.

B.8 Department of Levelling Up, Housing and Communities, Levelling Up and Regeneration Bill (2022) [See reference 22] – Sets out the direction for planning and makes provisions to support the levelling-up agenda. It seeks to streamline the planning process whilst attaching greater weight to development plans. It also aims to improve infrastructure delivery with a new levy system, improve alignment between plans to address cross-boundary issues, and will introduce added protection for heritage assets. The Act also states that existing EU-generated systems of SEA, HRA and EIA will eventually be replaced by a simpler process known as ‘Environmental Outcomes Reports’.

B.9 Department for Levelling Up, Housing and Communities, Levelling Up the United Kingdom White Paper (2022) [See reference 23] – Sets out how the UK Government will spread opportunity more equally across the UK. It comprises 12 UK-wide missions to achieve by 2030. Missions which relate to population, health and wellbeing state that by 2030:

- The gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years.
- Well-being will have improved in every area of the UK, with the gap between top performing and other areas closing.
- Homicide, serious violence, and neighbourhood crime will have fallen, focused on the worst-affected areas.
- Pride in place, such as people’s satisfaction with their town centre and engagement in local culture and community, will have risen in every area

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of the UK, with the gap between the top performing and other areas closing.

- The number of primary school children achieving the expected standard in reading, writing and maths will have significantly increased. In England, this will mean 90% of children will achieve the expected standard, and the percentage of children meeting the expected standard in the worst performing areas will have increased by over a third.
- Renters will have a secure path to ownership with the number of first-time buyers increasing in all areas; and the Government's ambition is for the number of non-decent rented homes to have fallen by 50%, with the biggest improvements in the lowest performing areas.

B.10 Department for Levelling Up, Housing and Communities, A Fairer Private Rented Sector White Paper (2022) [\[See reference 24\]](#) – Aims to build upon the vision of the Levelling Up White Paper and reform the Private Rented Sector and improve housing quality. It outlines that everyone deserves a secure and decent home and outlines measures to improve the experience of renters in the Private Rented Sector.

B.11 Ministry of Housing, Communities and Local Government, National Design Guide (2021) [\[See reference 25\]](#) – Sets out the Government's priorities for well-designed places in the form of ten characteristics: context, identity, built form, movement, nature, public spaces, uses, homes and buildings, resources and lifespan.

B.12 HM Government, Build Back Better: Our plan for health and social care (2021) [\[See reference 26\]](#) – Sets out the government's new plan for health and social care. It provides an overview of how this plan will tackle the elective backlog in the NHS and put the NHS on a sustainable footing. It sets out details of the plan for adult social care in England, including a cap on social care costs and how financial assistance will work for those without substantial assets. It covers wider support that the government will provide for the social care system, and how the government will improve the integration of health and

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social care. It explains the government's plan to introduce a new Health and Social Care Levy.

B.13 HM Government, COVID-19 mental health and wellbeing recovery action plan (2021) [\[See reference 27\]](#) – Sets out the Government's plan to prevent, mitigate and respond to the mental health impacts of the pandemic during 2021 and 2022. Its main objectives are to support the general population to take action and look after their own mental wellbeing; to take action to address factors which play a crucial role in shaping mental health and wellbeing outcomes; and, to support services to meet the need for specialist support.

B.14 Public Health England, Using the planning system to promote healthy weight environments (2020) [\[See reference 28\]](#), Addendum (2021) [\[See reference 29\]](#) – Provides a framework and starting point for local authorities to clearly set out in local planning guidance how best to achieve healthy weight environments based on local evidence and needs, by focusing on environments that enable healthier eating and help promote more physical activity as the default. The Addendum provides updates on the implications for planning for a healthier food environment, specifically on the hot food takeaways retail uses, and sets out recommended actions in light of changes to the Use Class Order (UCO) in England from 1 September 2020.

B.15 Ministry of Housing, Communities and Local Government, The Charter for Social Housing Residents: Social Housing White Paper (2020) [\[See reference 30\]](#) – Sets out the Government's actions to ensure residents in social housing are safe, listened to, live in good quality homes and have access to redress when things go wrong.

B.16 Public Health England, PHE Strategy 2020-25 (2019) [\[See reference 31\]](#) – 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.

B.17 HM Government, 25 Year Environment Plan (2018) [\[See reference 32\]](#) – Sets out goals for improving the environment within the next 25 years. It details how the Government will work with communities and businesses to leave the

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environment in a better state than it is presently. Identifies six key areas around which action will be focused. Those of relevance to the topics of population growth, health and wellbeing are ‘using and managing land sustainably’ and ‘connecting people with the environment to improve health and wellbeing’.

Actions that will be taken as part of these two key areas are as follows:

- Using and managing land sustainably:
 - Embed an ‘environmental net gain’ principle for development, including housing and infrastructure.
- Connecting people with the environment to improve health and wellbeing:
 - Help people improve their health and wellbeing by using green spaces including through mental health services;
 - Encourage children to be close to nature, in and out of school, with particular focus on disadvantaged areas; and
 - ‘Green’ our towns and cities by creating green infrastructure and planting one million urban trees.

B.18 Department for Communities and Local Government, The Housing White Paper: Fixing our broken housing market (2017) [\[See reference 33\]](#) – Sets out ways to address the shortfall in affordable homes and boost housing supply.

The White Paper focuses on the following:

- Planning for the right homes in the right places – Higher densities in appropriate areas, protecting the Green Belt while making more land available for housing by maximising the contribution from brownfield and surplus public land, regenerating estates, releasing more small and medium-sized sites, allowing rural communities to grow and making it easier to build new settlements.
- Building homes faster – Improved speed of planning cases, ensuring infrastructure is provided and supporting developers to build out more quickly.

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- Diversifying the Market – Backing small and medium-sized house builders, custom-build, institutional investors, new contractors, housing associations.
- Helping people now – Supporting home ownership and providing affordable housing for all types of people, including the most vulnerable.

B.19 Department for Communities and Local Government, Planning policy for traveller sites (2015) [\[See reference 34\]](#) – To be read in conjunction with the NPPF, this policy document sets out the Government’s planning policy for traveller sites. The Government’s overarching aim is to ensure fair and equal treatment for travellers, in a way that facilitates the traditional and nomadic way of life of travellers while respecting the interests of the settled community.

B.20 Department for Communities and Local Government, Technical housing standards – nationally described space standard (2015) [\[See reference 35\]](#) – This document sets out the Government’s new nationally described space standard. The standard deals with internal space within new dwellings and sets out requirements for the Gross Internal (floor) Area of new dwellings at a defined level of occupancy, as well as floor areas and dimensions for key parts of the home.

B.21 Select Committee on Public Service and Demographic Change, Ready for Ageing? Report (2013) [\[See reference 36\]](#) – Warns that society is underprepared for the ageing population. The report states “longer lives can be a great benefit, but there has been a collective failure to address the implications and without urgent action this great boon could turn into a series of miserable crises”. The report highlights the under provision of specialist housing for older people and the need to plan for the housing needs of the older population as well as younger people.

B.22 HM Government, Laying the Foundations: A Housing Strategy for England (2011) [\[See reference 37\]](#) – Aims to provide support to the delivery of new homes and to improve social mobility.

B.23 Fair Society, Healthy Lives – The Marmot Review (2010) [See reference 38] – Investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that there is “overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities”. Health Equity in England: The Marmot Review 10 Years On (2020) [See reference 39] – Revisits Fair Society, Healthy Lives. It found that, since 2010, life expectancy in England has stalled, which suggests society has stopped improving. In addition, there are marked regional differences in life expectancy – the more deprived the area, the shorter the life expectancy. Mortality rates are increasing in those aged 45-49, child poverty has increased and there is a housing crisis and rise in homelessness.

B.24 HM Government, Healthy Lives, Healthy People: Our strategy for public health in England (2010) [See reference 40] – Sets out how the Government’s approach to public health challenges will:

- Protect the population from health threats – led by central Government, with a strong system to the frontline;
- Empower local leadership and encourage wide responsibility across society to improve everyone’s health and wellbeing and tackle the wider factors that influence it;
- Focus on key outcomes, doing what works to deliver them, with transparency of outcomes to enable accountability through a proposed new public health outcomes framework;
- Reflect the Government’s core values of freedom, fairness and responsibility by strengthening self-esteem, confidence and personal responsibility; positively promoting healthy behaviours and lifestyles; and adapting the environment to make healthy choices easier; and
- Balance the freedoms of individuals and organisations with the need to avoid harm to others, use a ‘ladder’ of interventions to determine the least intrusive approach necessary to achieve the desired effect and aim to make voluntary approaches work before resorting to regulation.

B.25 HM Government, The Environmental Noise (England) Regulations 2006 [See reference 41] – Apply to environmental noise, mainly from transport. The regulations require regular noise mapping and action planning for road, rail and aviation noise and noise in large urban areas. They also require Noise Action Plans based on the maps for road and rail noise and noise in large urban areas. The Action Plans identify Important Areas (areas exposed to the highest levels of noise) and suggest ways the relevant authorities can reduce these. Major airports and those which affect large urban areas are also required to produce and publish their own Noise Action Plans separately. The Regulations do not apply to noise from domestic activities such as noise created by neighbours; at workplaces; inside means of transport; or military activities in military areas.

Environment (biodiversity/geodiversity, landscape and soils)

B.26 HM Government, Environment Act 2021 [See reference 42] – Sets statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water, and resource efficiency and waste reduction. Biodiversity elements in the Act include:

- Strengthened biodiversity duty. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development.
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity.
- Local Nature Recovery Strategies to support a Nature Recovery Network.
- Duty upon Local Authorities to consult on street tree felling.
- Strengthen woodland protection enforcement measures.
- Conservation Covenants.

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- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature.
- Prohibit larger UK businesses from using commodities associated with wide-scale deforestation.
- Requires regulated businesses to establish a system of due diligence for each regulated commodity used in their supply chain, requires regulated businesses to report on their due diligence, introduces a due diligence enforcement system.
- Sets out the UK's new framework for environmental protection. It includes the creation of Conservation Covenant agreements between a landowner and a responsible body for the purposes of conservation of the natural environment of the land or its natural resources, or to conserve the place or setting of the land for its 'archaeological, architectural, artistic, cultural or historic interest'.

B.27 HM Government, The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 [See reference 43] – Protect biodiversity through the conservation of natural habitats and species of wild fauna and flora, including birds. The Regulations lay down rules for the protection, management and exploitation of such habitats and species, including how adverse effects on such habitats and species should be avoided, minimised and reported.

B.28 HM Government, A Green Future: Our 25 Year Plan to Improve the Environment (2018) [See reference 44] – 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).

B.29 HM Government, A Green Future: Our 25 Year Plan to Improve the Environment (2018) [See reference 45] – Sets out goals for improving the

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environment within 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. Identifies six key areas around which action will be focused. Those of relevance to this chapter are recovering nature and enhancing the beauty of landscapes; securing clean, productive and biologically diverse seas and oceans; and protecting and improving our global environment. Actions that will be taken as part of these three key areas are as follows:

- Recovering nature and enhancing the beauty of landscapes:
 - Develop a Nature Recovery Network to protect and restore wildlife and provide opportunities to re-introduce species that have been lost from the countryside.
- Securing clean, healthy, productive and biologically diverse seas and oceans:
 - Achieve a good environmental status of the UK's seas while allowing marine industries to thrive and complete our economically coherent network of well-managed marine protected areas.
- Protecting and improving our global environment:
 - Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity; and
 - Support and protect international forests and sustainable agriculture.
- Working with AONB authorities to deliver environmental enhancements.
- Identifying opportunities for environmental enhancement of all England's Natural Character Areas, and monitoring indicators of landscape character and quality.

B.30 Defra, Biodiversity offsetting in England – Green paper (2013) [[See reference 46](#)] – Sets out a framework for biodiversity offsetting. Offsets are conservation activities designed to compensate for residual losses.

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B.31 Defra, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011) [See reference 47] – Guides conservation efforts in England up to 2020 by requiring a national halt to biodiversity loss, supporting healthy ecosystems and establishing ecological networks.

B.32 Defra, Safeguarding our Soils – A Strategy for England (2009) [See reference 48] – 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.

B.33 Defra, England Biodiversity Strategy – Climate Change Adaptation Principles: Conserving biodiversity in a changing climate (2008) [See reference 49] – Sets out principles to guide adaptation to climate change. The principles are take: practical action now, maintain and increase ecological resilience, accommodate change, integrate action across all sectors and develop knowledge and plan strategically. The precautionary principle underpin all of these.

B.34 HM Government (2006) Natural Environment and Rural Communities Act 2006 [See reference 50] – Places a duty on public bodies to conserve biodiversity.

B.35 HM Government, Countryside and Rights of Way Act 2000 [See reference 51] – An Act of Parliament to make new provision for public access to the countryside.

B.36 HM Government, National Parks and Access to the Countryside Act 1949 [See reference 52] – An Act of Parliament to make provision for National Parks and the establishment of a National Parks Commission; to confer on the Nature Conservancy and local authorities' powers for the establishment and maintenance of nature reserves; to make further provision for the recording,

creation, maintenance and improvement of public paths and for securing access to open country.

Historic Environment

B.37 HM Government, Environment Act 2021 [\[See reference 53\]](#) – Sets out the UK’s new framework for environmental protection. It includes the creation of Conservation Covenant agreements between a landowner and a responsible body for the purposes of conservation. This can include to preserve land as a place of ‘archaeological, architectural artistic, cultural or historic interest’.

B.38 The Heritage Alliance, Heritage 2020 – Sets out the historic environment sector’s plan for its priorities between 2015 and 2020.

B.39 Historic England, Three Year Corporate Plan 2018-21 (2018) [\[See reference 54\]](#) – 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.

B.40 Department for Digital, Cultra Media and Sport, Heritage Statement 2017 (2017) [\[See reference 55\]](#) – Sets out how the Government will support the heritage sector and help it to protect and care for our heritage and historic environment, in order to maximise the economic and social impact of heritage and to ensure that everyone can enjoy and benefit from it.

B.41 Historic England, Sustainability Appraisal and Strategic Environmental Assessment – Historic England Advice Note 8 (2016) [\[See reference 56\]](#) – 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.

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B.42 Historic England, The Historic Environment in Local Plans – Historic Environment Good Practice Advice in Planning: 1 (2015) [\[See reference 57\]](#) – Sets out information to help local planning authorities make well informed and effective local plans. It offers practical advice to local authorities, planners, and developers on how to integrate the historic environment into planning processes, ensuring its protection and enhancement alongside new developments.

B.43 Department for Culture, Media and Sport, The Government’s Statement on the Historic Environment for England 2010 (2013) [\[See reference 58\]](#) – Sets out the Government’s vision for the historic environment. It calls for those who have the power to shape the historic environment to recognise its value and to manage it in an intelligent manner in light of the contribution that it can make to social, economic and cultural life. Includes reference to promoting the role of the historic environment within the Government’s response to climate change and the wider sustainable development agenda.

B.44 HM Government, Planning (Listed Buildings and Conservation Areas) Act 1990 [\[See reference 59\]](#) – An Act of Parliament that changed the laws for granting of planning permission for building works, with a particular focus on listed buildings and conservation areas.

B.45 HM Government, Ancient Monuments and Archaeological Areas Act 1979 [\[See reference 60\]](#) – A law passed by the UK government to protect the archaeological heritage of England & Wales and Scotland. Under this Act, the Secretary of State has a duty to compile and maintain a schedule of ancient monuments of national importance, in order to help preserve them. It also creates criminal offences for unauthorised works to, or damage of, these monuments.

B.46 HM Government, Historic Buildings and Ancient Monuments Act 1953 [\[See reference 61\]](#) – An Act of Parliament that makes provision for the compilation of a register of gardens and other land (parks and gardens, and battlefields).

Water and Air

B.47 Defra, Establishing the Best Available Techniques for the UK (UK BAT) (2022) [See reference 62] – Sets out a new framework that aims to improve industrial emissions and protect the environment through the introduction of a UK BAT regime. It aims to set up a new structure of governance with a new independent body in the form of Standards Council and the Regulators Group, consisting of government officials and expert regulators from all UK nations. It aims to also establish a new UK Air Quality Governance Group to oversee the work of the Standards Council and the delivery of the requirements under this new framework. It is anticipated that the BAT for the first four industry sectors will be published in the second half of 2023.

B.48 HM Government, Environment Act 2021 [See reference 63] – Sets statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water, and resource efficiency and waste reduction. It also establishes the Office for Environmental Protection which will act as an impartial and objective body for the protection and improvement of the environment. The Act sets out legislation which covers:

- Resource efficiency, producer responsibility, and the management, enforcement and regulation of waste;
- Local air quality management frameworks and the recall of motor vehicles etc; and
- Plans and proposals for water resources, drainage and sewerage management, storm overflows, water quality and land drainage.

B.49 HM Government, The Waste (Circular Economy) (Amendment) Regulations 2020 [See reference 64] – Seek to prevent waste generation and to monitor and assess the implementation of measures included in waste prevention programmes. They set out requirements to justify not separating waste streams close to source for re-use, recycling or other recovery operations, prohibit incineration and landfilling of waste unless such treatment process represent the best environmental outcome in accordance with the

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waste hierarchy. The Regulations set out when waste management plans and in waste prevention programmes are required. The Regulations focus on the circular economy as a means for businesses to maximise the value of waste and waste treatment.

B.50 Defra, Clean Air Strategy 2019 (2019) [See reference 65] – 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.

B.51 HM Government, The Environmental Noise (England) (Amendment) Regulations 2018 [See reference 66] – Apply to environmental noise, mainly from transport. The regulations require regular noise mapping and action planning for road, rail and aviation noise and noise in large urban areas. They also require Noise Action Plans based on the maps for road and rail noise and noise in large urban areas. The Action Plans identify Important Areas (areas exposed to the highest levels of noise) and suggest ways the relevant authorities can reduce these. Major airports and those which affect large urban areas are also required to produce and publish their own Noise Action Plans separately. The Regulations do not apply to noise from domestic activities such as noise created by neighbours; at workplaces; inside means of transport; or military activities in military areas.

B.52 HM Government, The Road to Zero – Next steps towards cleaner road transport and delivering our Industrial Strategy (2018) [See reference 67] – 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.

B.53 HM Government, Our Waste, Our Resources: A Strategy for England (2018) [See reference 68] – Aims to increase resource productivity and eliminate avoidable waste by 2050. The Strategy sets out key targets which include: a 50% recycling rate for household waste by 2020, a 75% recycling rate for packaging by 2030, 65% recycling rate for municipal solid waste by 2035 and municipal waste to landfill 10% or less by 2035.

B.54 HM Government, A Green Future: Our 25 Year Plan to Improve the Environment (2018) [See reference 69] – Sets out goals for improving the environment within 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. Identifies six key areas around which action will be focused. Those of relevance to this chapter are:

- Using and managing land sustainably:
 - Embed a ‘net environmental gain’ principle for development, including natural capital benefits to improved and water quality;
 - Protect best agricultural land; and
 - Improve soil health and restore and protect peatlands.
- Recovering nature and enhancing the beauty of landscapes:
 - Respect nature by using our water more sustainably.
- Increasing resource efficiency and reducing pollution and waste:
 - Reduce pollution by tackling air pollution in our Clean Air Strategy and reduce the impact of chemicals.

B.55 HM Government, The Water Supply (Water Quality) Regulations 2018 [See reference 70] – Focus on the quality of water for drinking, washing, cooking and food preparation, and for food production. Their purpose is to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring it is wholesome and clean.

B.56 HM Government, The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [\[See reference 71\]](#) – Protect inland surface waters, transitional waters, coastal waters and groundwater, and outlines the associated river basin management process. These Regulations establish the need to prevent deterioration of waterbodies and to protect, enhance and restore waterbodies with the aim of achieving good ecological and chemical status.

B.57 Defra and Department for Transport, UK plan for tackling roadside nitrogen dioxide concentrations (2017) [\[See reference 72\]](#) – Sets out the Government’s ambition and actions for delivering a better environment and cleaner air, including £1 billion investment in ultra-low emission vehicles, a £290 million National Productivity Investment Fund, a £11 million Air Quality Grant Fund and £255 million Implementation Fund to help Local Authorities to prepare Air Quality Action Plans and improve air quality, an £89 million Green Bus Fund, £1.2 billion Cycling and Walking Investment Strategy and £100 million to help improve air quality on the National road network.

B.58 Environment Agency, Managing water abstraction (2016) [\[See reference 73\]](#) – Is the overarching document for managing water resources in England and Wales and links together the abstraction licensing strategies.

B.59 HM Government, The Environmental Permitting (England and Wales) Regulations 2016 [\[See reference 74\]](#) – Streamline the legislative system for industrial and waste installations into a single permitting structure for those activities which have the potential to cause harm to human health or the environment. They set out how to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment and human health.

B.60 HM Government, The Nitrate Pollution Prevention Regulations (2015) [\[See reference 75\]](#) – Provides for the designation of land as nitrate vulnerable zones and imposes annual limits on the amount of nitrogen from organic manure that may be applied or spread in a holding in a nitrate vulnerable zone.

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The Regulations also specify the amount of nitrogen to be spread on a crop and how, where and when to spread nitrogen fertiliser, and how it should be stored. It also establishes closed periods during which the spreading of nitrogen fertiliser is prohibited.

B.61 Department for Communities and Local Government, National Planning Policy for Waste (NPPW) (2014) [\[See reference 76\]](#) – Key planning objectives are identified within the NPPW, requiring planning Authorities to:

- Help deliver sustainable development through driving waste management up the waste hierarchy;
- Ensure waste management is considered alongside other spatial planning concerns;
- Provide a framework in which communities take more responsibility for their own waste;
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment; and
- Ensure the design and layout of new development supports sustainable waste management.

B.62 Defra, The Water White Paper (2012) [\[See reference 77\]](#) – 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.

B.63 Defra, National Policy Statement for Waste Water (2012) [\[See reference 78\]](#) – Sets out Government policy for the provision of major waste water infrastructure. The policy set out in this NPS is, for the most part, intended to make existing policy and practice in consenting nationally significant waste water infrastructure clearer and more transparent.

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B.64 HM Government, The Building Regulations 2010 [See reference 79] – Requires that reasonable precautions are taken to avoid risks to health and safety caused by contaminants in ground to be covered by building and associated ground.

B.65 HM Government, The Air Quality Standards Regulations 2010 [See reference 80] – Set out limits on concentrations of outdoor air pollutants that impact public health, most notably particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO₂). It also sets out the procedure and requirements for the designation of Air Quality Management Areas (AQMAs).

B.66 Defra, Safeguarding our Soils – A Strategy for England (2009) [See reference 81] – Sets out how England's soils will be managed sustainably. It highlights those areas which Defra will prioritise and focus attention on 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.

B.67 Defra, Future Water: The Government's water strategy for England (2008) [See reference 82] – Sets out how the Government wants the water sector to look by 2030, providing an outline of steps which need to be taken to get there. These steps include improving the supply of water; agreeing on important new infrastructure such as reservoirs; proposals to time limit abstraction licences; and reducing leakage. The document also states that pollution to rivers will be tackled, whilst discharge from sewers will be reduced.

B.68 Defra, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007) [See reference 83] – Sets out a way forward for work and planning on air quality issues by setting out the air quality standards and objectives to be achieved. It introduces a new policy framework for tackling fine particles and identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives. The objectives of the Strategy are to:

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- Further improve air quality in the UK from today and long term; and
- Provide benefits to health quality of life and the environment.

B.69 HM Government, The Urban Waste Water Treatment (England and Wales) (Amendment) Regulations 2003 [See reference 84] – Protect the environment from the adverse effects of urban waste water discharges and certain industrial sectors, notably domestic and industrial waste water. The regulations require the collection of waste water and specifies how different types of waste water should be treated, disposed and reused.

B.70 HM Government, Environmental Protection Act 1990 [See reference 85] – Makes provision for the improved control of pollution to the air, water and land by regulating the management of waste and the control of emissions. Seeks to ensure that decisions pertaining to the environment are made in an integrated manner, in collaboration with appropriate authorities, non-governmental organisations and other persons.

Economic Growth

B.71 Department for Levelling Up, Housing and Communities, Levelling Up and Regeneration Bill (2022) [See reference 86] – Sets out the direction for planning and makes provisions to support the levelling-up agenda. It seeks to streamline the planning process whilst attaching greater weight to development plans. It also aims to improve infrastructure delivery with a new levy system, improve alignment between plans to address cross-boundary issues, and will introduce added protection for heritage assets. The Act also states that existing EU-generated systems of SEA, HRA and EIA will eventually be replaced by a simpler process known as ‘Environmental Outcomes Reports’.

B.72 Department for Levelling Up, Housing and Communities, Levelling Up the United Kingdom White Paper (2022) [See reference 87] – Sets out how the UK Government will spread opportunity more equally across the UK. It comprises

12 UK-wide missions to achieve by 2030. Missions which relate to economy and employment state that by 2030:

- Pay, employment and productivity will have risen in every area of the UK, with each containing a globally competitive city, with the gap between the top performing and other areas closing.
- The number of people successfully completing high-quality skills training will have significantly increased in every area of the UK. In England, this will lead to 200,000 more people successfully completing high-quality skills training annually, driven by 80,000 more people completing courses in the lowest skilled areas.
- Domestic public investment in Research & Development outside the Greater South East will increase by at least 40% and at least one third over the Spending Review period, with that additional government funding seeking to leverage at least twice as much private sector investment over the long term to stimulate innovation and productivity growth.
- Every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution and a simplified, long-term funding settlement.

B.73 HM Treasury, Build Back Better: our plan for growth (2021) [\[See reference 88\]](#) – Sets out a plan to ‘build back better’ tackling long-term problems to deliver growth that delivers high-quality jobs across the UK while supporting the transition to net zero. This will build on three core pillars of growth: infrastructure, skills and innovation.

B.74 Defra, The Path to Sustainable Farming: An Agricultural Transition Plan 2021 to 2024 (2020) [\[See reference 89\]](#) – Aims to drive competitiveness, increase productivity, reduce carbon emissions, and generate fairer returns across the agricultural industry. The Transition Plan introduces several new schemes to improve the environment, animal health and welfare, and farm resilience and productivity (e.g. grants will be available for sustainable farming practices, creating habitats for nature recovery and making landscape-scale changes such as establishing new woodland and other ecosystem services).

B.75 HM Government, Agriculture Act 2020 [See reference 90] – Sets out how farmers and land managers in England will be rewarded in the future with public money for ‘public goods’ – such as better air and water quality, thriving wildlife, soil health, or measures to reduce flooding and tackle the effects of climate change, under the Environmental Land Management Scheme. These incentives will provide a vehicle for achieving the goals of the government’s 25 Year Environment Plan and commitment to reach zero emissions by 2050. The Act will help farmers to stay competitive, increase productivity, invest in new technology and seek a fairer return from the marketplace.

B.76 HM Government, Industrial Strategy: Building a Britain fit for the future (2017) [See reference 91] – Lays down a vision and foundations for a transformed economy. Areas including artificial intelligence and big data; clean growth; the future of mobility; and meeting the needs of an ageing society are identified as the four ‘Grand Challenges’ of the future.

B.77 HM Government, Industrial Strategy: Building a Britain fit for the future (2017) [See reference 92] – 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).

B.78 LEP Network, LEP Network Response to the Industrial Strategy Green Paper Consultation (2017) [See reference 93] – 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.

B.79 Infrastructure and Projects Authority, National Infrastructure Delivery Plan 2016-2021 (2016) [See reference 94] – Brings together the Government’s plans for economic infrastructure over this five year period with those to support delivery of housing and social infrastructure.

Transport and Accessibility

B.80 Department for Levelling Up, Housing and Communities, Levelling Up the United Kingdom White Paper (2022) [See reference 95] – Sets out how the UK Government will spread opportunity more equally across the UK. It comprises 12 UK-wide missions to achieve by 2030, which includes the following key mission relating to transport and travel:

- By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.

B.81 Department for Transport, Cycling and Walking Investment Strategy Report to Parliament 2022 (2022) [See reference 96] – Sets out the objectives and financial resources for cycling and walking infrastructure. It states the Government’s long-term ambition is to make walking and cycling the natural choices for shorter journeys. It aims to double cycling by 2025, increase walking activity, increase the percentage of children that usually walk to school and reduce the number of cyclists killed or seriously injured on England’s roads.

B.82 HM Government, Environment Act 2021 [See reference 97] – Sets statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water, and resource efficiency and waste reduction. It also establishes the Office for Environmental Protection which will act as an impartial and objective body for the protection and improvement of the environment. The Act sets out legislation which covers local air quality management frameworks and the recall of motor vehicles.

B.83 Department for Transport, Decarbonising Transport: A Better, Greener Britain (2021) [\[See reference 98\]](#) – The Decarbonisation Transport Plan (DTP) sets out the Government's commitments and the actions needed to decarbonise the entire transport system in the UK. It follows on from the Decarbonising Transport: Setting the Challenge report published in 2020. The DTP commits the UK to phasing out the sale of new diesel and petrol heavy goods vehicles by 2040, subject to consultation, in addition to phasing out the sale of polluting cars and vans by 2035. The DTP also sets out how the government will improve public transport and increase support for active travel, as well as creating a net zero rail network by 2050, ensuring net zero domestic aviation emissions by 2040, and a transition to green shipping.

B.84 Department for Transport, Decarbonising Transport: Setting the Challenge (2020) [\[See reference 99\]](#) – Sets out the strategic priorities for the new Transport Decarbonisation Plan (TDP), published in July 2021. It sets 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 takes a coordinated, cross-modal approach to deliver the transport sector's contribution to both carbon budgets and net zero.

B.85 HM Government, The Road to Zero – Next steps towards cleaner road transport and delivering our Industrial Strategy (2018) [\[See reference 100\]](#) – 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.

B.86 Highways England, Highways England Sustainable Development Strategy and Action Plan (2017) [\[See reference 101\]](#) – This strategy is designed to communicate the company's approach and priorities for sustainable

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development to its key stakeholders. Highways England aims to ensure its action in the future will further reduce the impact of its activities seeking a long-term and sustainable benefit to the environment and the communities it serves. The action plan describes how Highways England will progress the aspirations of their Sustainable Development and Environment Strategies. It describes actions that will enable the company to deliver sustainable development and to help protect and improve the environment.

B.87 Department for Transport, Transport Investment Strategy: Moving Britain Ahead (2017) [See reference 102] – Sets out four objectives that the strategy aims to achieve:

- Create a more reliable, less congested, and better connected transport network that works for the users who rely on it;
- Build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities;
- Enhance our global competitiveness by making Britain a more attractive place to trade and invest; and
- Support the creation of new housing.

B.88 Department for Transport, Door to Door: A strategy for improving sustainable transport integration (2013) [See reference 103] – Focuses on four core areas which need to be addressed so that people can be confident in choosing greener modes of transport. There are as follows:

- Accurate, accessible and reliable information about different transport options;
- Convenient and affordable tickets;
- Regular and straightforward connections at all stages of the journey and between different modes of transport; and
- Safe and comfortable transport facilities.

B.89 The strategy also includes details on how the Government is using behavioural change methods to reduce or remove barriers to the use of sustainable transport and working closely with stakeholders to deliver a better-connected transport system.

Regional Plans and Programmes of Most Relevance for the Local Plan

B.90 Cotswolds National Landscape, Cotswolds National Landscape Management Plan 2023-2025 (2023) [See reference 104] – The management plan sets out policies for the management of the National Landscape. The plan sets the overall vision for the area as well as various policies that aim to conserve and enhance the landscape, nature and climate and ensure access, learning and wellbeing opportunities for everyone.

B.91 Gloucestershire County Council, Building Back Better in Gloucestershire 2022-2026 (2022) [See reference 105] – Sets out a vision for the area as well as the current challenges and opportunities. The strategy sets out nine priorities: tackling climate change, improving our roads, sustainable growth, levelling up our communities, securing investment for Gloucestershire, transforming children’s services, transforming adult social care, transforming fire and rescue service and improving customer experience.

B.92 West of England Combined Authority, West of England Local Cycling and Walking Infrastructure Plan 2020-2036 (2021) [See reference 106] – 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.

B.93 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

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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, kickscooters, 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.

B.94 West of England Combined Authority, West of England Joint Green Infrastructure Strategy 2020-2030 (2020) [\[See reference 107\]](#) – 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.

B.95 West of England Combined Authority, Joint Local Transport Plan 4 2020-2036 (2020) [\[See reference 108\]](#) – 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 JLPT 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.

B.96 gfirst LEP, Draft Gloucestershire Local Industrial Strategy 2019 (2019) [\[See reference 109\]](#) – 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.

B.97 Association of Severn Estuary Relevant Authorities (ASERA), Severn Estuary European Marine Site Management Scheme 2018-2023 (2018) [\[See](#)

reference 110] – 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.

B.98 Natural England, Identification of wintering waterfowl roosts in the Severn Estuary SPA/SAC and Ramsar site; Phases 2 and 3 (RP02366) (2017) **[See reference 111]** – 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.

B.99 Association of Severn Estuary Relevant Authorities (ASERA), Recreational Boating in the Severn Estuary (2016) **[See reference 112]** – 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.

B.100 West of England Combined Authority, West of England Sustainable Drainage Developer Guide Section 1 (2015) **[See reference 113]** – 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.

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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.

B.101 West of England Local Enterprise Partnership, West of England Strategic Economic Plan 2015-2030 (2014) [See reference 114] – 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.

B.102 Gloucestershire County Council, Gloucestershire Local Flood Risk Management Strategy (2014) [See reference 115] – Gloucestershire County Council (GCC) has responsibility as a Lead Local Flood Authority handling flood risk across the county from surface water runoff, ordinary watercourses and groundwater. The Strategy sets out how GCC will aim to manage flood risk in partnership across Gloucestershire over the next 10 years. As part of the Strategy, GCC has identified the most vulnerable locations for flood risk and these remain highest priority for seeking viable and cost effective solutions.

B.103 West of England Combined Authority, West of England Strategic Green Infrastructure Framework (2011) [See reference 116] – The purpose of this plan is to maintain a functional and connected strategic Green Infrastructure network and maximise opportunities for enhancing the network.

B.104 West of England Partnership, West of England Joint Waste Core Strategy (2011) [See reference 117] – 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.

B.105 Bristol City Council, South Gloucestershire Council and Lower Severn Drainage Board, Strategic Flood Risk Assessment Avonmouth/Sevenside (2011) [See reference 118] – 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 rhyne network to various development sites.

Local Plans and Programmes of Most Relevance for the Local Plan

Neighbouring Local Plans

B.106 Bath and North East Somerset Council, Local Plan (Core Strategy and Placemaking Plan) Partial Update (2023) [See reference 119] – The Local Plan Partial Update (LPPU) was adopted on 19 January 2023. The LPPU amends or updates parts of the adopted Core Strategy and Placemaking Plan to better address the climate and ecological emergencies.

B.107 HM Government, South West Inshore and South West Offshore Marine Plan (2021) [See reference 120] – The South West Offshore Marine Plan area covers approximately 2,000 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.

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- The marine environment and its resources are used to maximise sustainable activity, prosperity and opportunities for all, now and in the future.
- Marine businesses take long-term strategic decisions and manage risk effectively. They are competitive and operating efficiently.
- 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, as well as contributing to physical and mental wellbeing.
- 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 and recognition that for some island peripheral communities the sea plays a significant role in their community.
- 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, and loss has been halted.
- 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.

B.108 Cotswold District Council, Cotswold District Local Plan 2011-2031 (2018)

[See reference 121] – 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 South Gloucestershire, 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; and
 - 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;

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- Supporting the principle of waste minimisation; and
- Locating development away from high flood risk areas.

B.109 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 South Gloucestershire have been identified as the most sustainable locations to accommodate this growth, with Cirencester being South Gloucestershire's main centre. In June 2020 South Gloucestershire Council agreed to undertake a partial update for the Local Plan. The update will focus only on issues that need modification within the plan period (to 2031).

B.110 Bath and North East Somerset Council, Core Strategy (2014) and Placemaking Plan (2017) [\[See reference 122\]](#) – 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 South Gloucestershire'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.

B.111 The Bath and North East Somerset adopted 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.

B.112 Stroud District Council, Stroud District Local Plan (2015) [\[See reference 123\]](#) – 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 South Gloucestershire;
- 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.

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B.113 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.

B.114 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 50ha 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. The Stroud District Council Local Plan and Evidence Base was submitted for examination on 25th October 2021.

B.115 Wiltshire Council, Wiltshire Core Strategy (2015) [[See reference 124](#)] – 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.

B.116 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 178ha of new employment land over the plan period.

B.117 Wiltshire Council is currently in the process of reviewing the Local Plan to cover the period up to 2036. Consultation was held between January and March 2021 covering the key components to inform a draft Local Plan, including proposals for housing and employment.

B.118 Bristol City Council, Core Strategy (2011) [[See reference 125](#)] – The main objectives here are:

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- 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; and
- Community involvement and engagement.

B.119 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.

B.120 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 Regulation 18 consultation on issues and options for development expected in Spring/Summer 2022. The draft review outlines plans to deliver 33,500 homes by 2036.

Other South Gloucestershire Plans and Strategies

B.121 South Gloucestershire Council, Housing Strategy 2023 (2023) [See reference 126] – Sets out the council’s aspirations for housing in South Gloucestershire in the long term. The three aims include: a home for everyone that meets their needs, sustainable homes and thriving communities and neighbourhoods.

B.122 South Gloucestershire Council, Joint Health and Wellbeing Strategy 2021-25 (2023) [See reference 127] – Sets out a vision which emphasises a focus on reducing inequalities and a local South Gloucestershire ‘place-based’ approach. It also sets out four objectives: improve educational attainment and promote wellbeing, promote and enable positive mental health and wellbeing for all, promote and enable healthy lifestyles, maximise the potential of the built and natural environment to enable healthy lifestyles.

B.123 South Gloucestershire Council, South Gloucestershire All-age Learning Disability Strategy 2022-2027 (2022) [See reference 128] – sets out the vision and priorities for people of any age with a learning disability in South Gloucestershire.

B.124 South Gloucestershire Council, Council Plan 2020-2024 (2022) [See reference 129] – The Council plan has a number of high level priorities that the Council is seeking to address. These are:

- Creating the best start in life for children and young people;
- Identifying and supporting those most in need and helping people to help themselves;
- Promoting sustainable inclusive communities, infrastructure, and growth; and
- Realising the full potential of our people and delivering value for money.

B.125 South Gloucestershire Council, Small and Rural Schools Strategy (2020) **[See reference 130]** – 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.

B.126 South Gloucestershire Council, Commissioning of Places Strategy – Growth and Capital Investments in South Gloucestershire Schools 2019-2023 (2019) **[See reference 131]** – 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.

B.127 South Gloucestershire Council, South Gloucestershire Council's Rural Affordable Housing Statement of Commitment (2018) **[See reference 132]** – The aim of this document is to encourage rural communities to consider their current and future housing needs and long term sustainability.

B.128 South Gloucestershire Council, Climate Change Strategy 2018-23 (2017) **[See reference 133]** – Looks to:

- Increase resilience to climate change – a safe and healthy place to live and do business;

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- 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.

B.129 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.

B.130 South Gloucestershire Council, South Gloucester 2036 “A great place to live and work” – South Gloucestershire’s Sustainable Community Strategy 2016 (2016) [See reference 134] – 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.

B.131 South Gloucestershire Council, South Gloucestershire Biodiversity Action Plan 2016-2026 (2016) [See reference 135] – 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.

B.132 South Gloucestershire Council, South Gloucestershire Local Flood Risk Management Strategy 2015-2020 (2015) – Sets out a list of objectives in order to minimise and mitigate against the impact of flooding, such as prioritising and

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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.

B.133 South Gloucestershire Council, Housing Strategy 2013-2018 (2013) **[See reference 136]** – 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.

B.134 South Gloucestershire Council, South Gloucestershire Economic Development Strategy 2012-16 (2012) **[See reference 137]** – 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 South Gloucestershire share the benefit of economic development; and

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- To meet the land, premises and infrastructure requirements of businesses where it is sustainable and consistent with employment and regeneration objectives.

B.135 South Gloucestershire Council, Strategic Flood Risk Assessment Level 1 (2009) [See reference 138] and Level 2 (2011) [See reference 139] – 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.

Appendix C

Baseline Information

C.1 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.

C.2 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’].”

C.3 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.

C.4 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

C.5 South Gloucestershire is situated within the West of England Combined Authority area, located immediately to the north east of Bristol. South Gloucestershire has close links with Bristol along with some other neighbouring communities, namely Wiltshire, Bath & North East Somerset, Gloucestershire and South Wales.

C.6 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

C.7 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

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neutral by 2030. The South Gloucestershire Climate Change Strategy has been updated to include this revised target.

C.8 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 2019 (the most recently available data), carbon dioxide emissions totalled 1096.8 kt which is 47% lower than in 1990 [\[See reference 140\]](#).

Figure C.1: South Gloucestershire carbon dioxide emissions 2005-2019

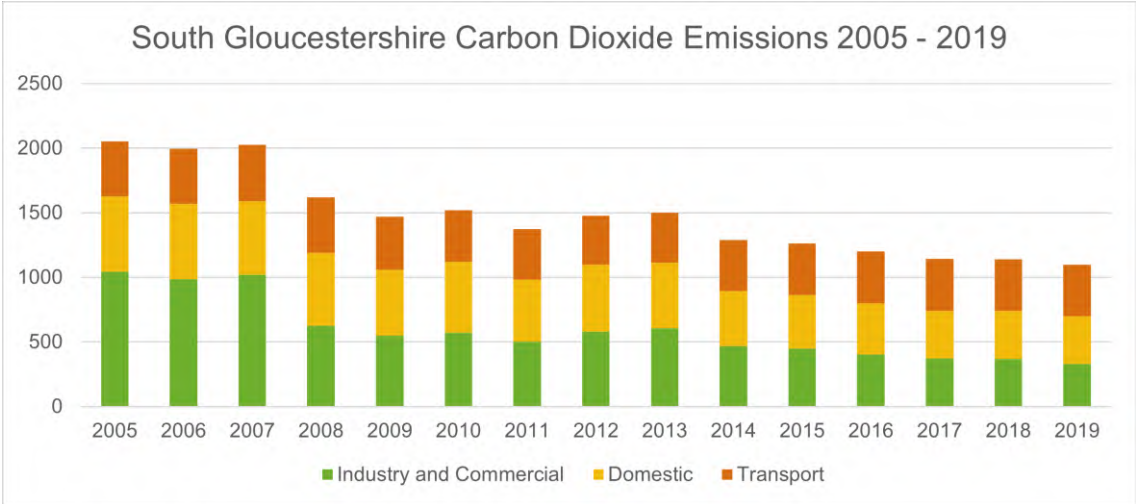


Table C.1: Carbon dioxide emissions for South Gloucestershire between 2005 and 2021 [\[See reference 141\]](#)

Year	Industry and Commercial	Domestic	Transport	Grand Total	Per Capita Emissions (t)
2005	746.8	569.4	949.0	2,740.1	10.8

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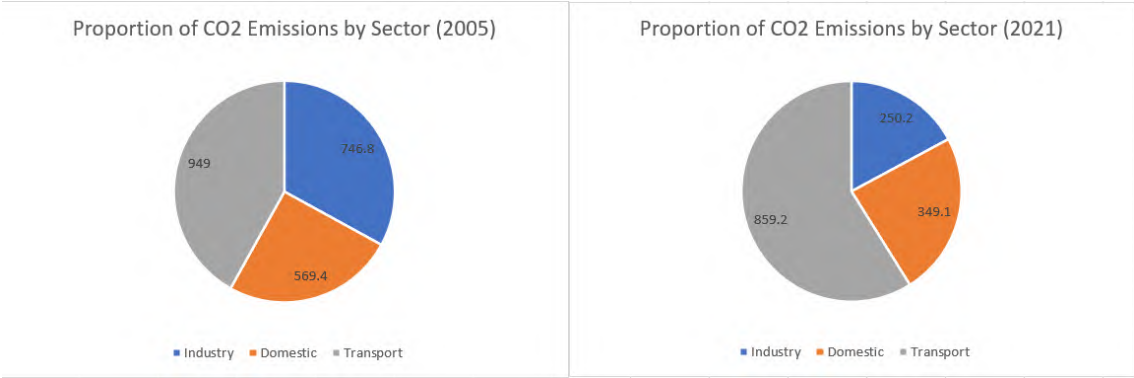
Year	Industry and Commercial	Domestic	Transport	Grand Total	Per Capita Emissions (t)
2006	654.7	574.0	948.9	2,688.0	10.5
2007	703	554.8	963.6	2,715.9	10.6
2008	345.7	552.5	935.6	2,218.6	8.6
2009	292.8	501.8	900.8	2,042.3	7.9
2010	312.1	536.2	891.9	2,103.6	8.0
2011	275.8	469.1	877.1	1,936.7	7.4
2012	294.2	507.7	845.9	2,021.9	7.6
2013	297.0	495.9	851.1	1,989.1	7.5
2014	266.4	418.3	877.0	1,842.9	6.9
2015	257.2	403.9	901.5	1,822.8	6.7
2016	249.3	387.8	919.4	1,769.4	6.4
2017	243.1	363.8	924.7	1,702.7	6.1
2018	256.4	357.3	911.1	1,669.5	5.9
2019	304.2	348.9	908.8	1,691.7	5.9
2020	293.6	339.6	733.2	1,475.5	5.1
2021	250.2	349.1	859.2	1,577.6	5.4

C.9 Data for 2021 shows an increase in total local emissions when compared to the previous year. This indicates that progress has declined and overall stalled. This latest increase is consistent with the increase in overall UK emissions in 2021, which increased by 5% largely due to COVID-19 restrictions easing and colder temperatures increasing the use of heating [See reference 142]. 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.

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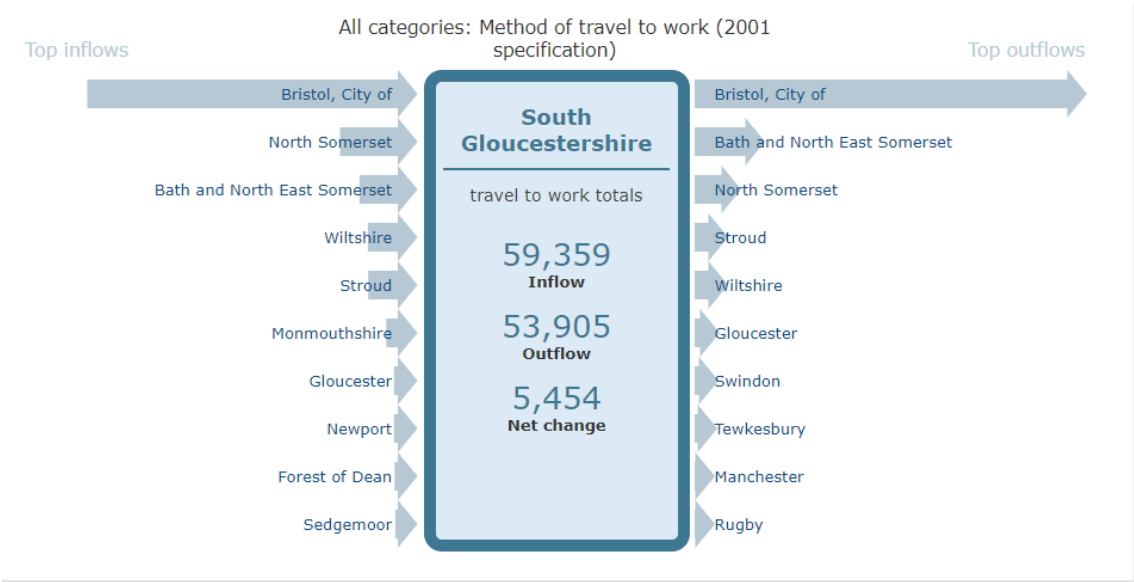
C.10 In South Gloucestershire, since 2005 the proportion of emissions coming from the transport sector has risen to account for 55%, whilst the share coming from the industrial and commercial sector has dropped to 16%. The domestic sector makes up the remaining 22% of emissions. This highlights the need to make progress in reducing emissions from the transport and the domestic sectors in particular.

Figure C.2: Proportion of CO2 emissions by sector in 2005 (left) and 2021 (right)



C.11 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 below [\[See reference 143\]](#).

Figure C.3: Method of travel to work within South Gloucestershire



C.12 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

C.13 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. South Gloucestershire has a population of 290,423, equal to 5.4 persons per hectare [See reference 144]. Like many other places South Gloucestershire has an ageing population, with an increasing number of older residents [See reference 145] who have associated needs in terms of access to appropriate housing and services. 67.5% of South Gloucestershire’s

population lives in urban areas surrounding Bristol while 16.7% of the population lives in market towns.

Housing

C.14 South Gloucestershire currently has a housing supply of 5.35 years. In 2021/2022, 1,657 houses were completed on sites across South Gloucestershire [See reference 146]. The Core Strategy 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.

C.15 In 2021/2022, 562 affordable homes were delivered in South Gloucestershire. Of the 562 completed homes, 282 are social rent, 56 are affordable rent and 224 are shared ownership.

C.16 Current monitoring of dwelling completions indicates that in the year to April 2022, 28% 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

C.17 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.

C.18 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

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the census and other routinely held sources to provide a score for small areas. South Gloucestershire in 2019 is ranked 267th of 317 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 [\[See reference 147\]](#).

C.19 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.

C.20 The following map shows the location of the priority neighbourhoods in South Gloucestershire [\[See reference 148\]](#).

Figure C.4: Map showing location of the priority neighbourhoods in South Gloucestershire



C.21 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.

C.22 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.

C.23 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.

C.24 The proportion of deprived households in South Gloucestershire (47%) is lower than the national average (51%). Additionally, the proportion of children in low-income families is lower in South Gloucestershire at 8.3% than the national average which is 17.6%.

Health

C.25 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 2021 census show that 83.5% of the population (242,484 residents) described themselves as being in ‘good’ or ‘very good’ health, this is above the national average of 81.7%. There are, however, differences in health between different groups with those living in deprived areas experiencing poorer health.

C.26 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

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(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.

C.27 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.

C.28 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

C.29 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.

C.30 To gauge the facilities in South Gloucestershire, 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, the Council updated the SAPs and produced Data Access Profiles (DAPs) that also look at urban areas. This work provides an understanding of the level of sustainable access to key services and facilities from South

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Gloucestershire's urban and rural areas (including villages and settlements), to enable a detailed understanding of the facilities available for communities.

C.31 In addition to this, the Council also undertook a detailed consultation on community centres, venues and sports clubs to ascertain the needs of these key community facilities. It has helped to further understand the facilities available to communities across South Gloucestershire 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).

C.32 The information from the various surveys will assist in guiding the priorities for the Local Plan.

Open Space and Green/Blue Infrastructure

C.33 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 1461ha of the plan area. While 0.14ha of parks and gardens are currently provided per 1,000 residents across the 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.

C.34 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 South Gloucestershire when schools sites and golf courses are taken into consideration.

C.35 The West of England Green Infrastructure Strategy sets out priorities, projects and areas for enhancing and protecting connectivity of ecological, landscape, access and recreational assets. This includes 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. The South Gloucestershire Strategic GI Corridor Mapping Project (2022) gives spatial expression to South Gloucestershire's strategic GI corridors by clearing delineating their boundaries. When 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.

C.36 The latest stretch of the England coast path from Aust to Avonmouth in South Gloucestershire, connecting the national coast paths of England and Wales is now open [[See reference 149](#)].

Education

C.37 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 South Gloucestershire and it is important that every child and young person can access high-quality school provision in South Gloucestershire.

C.38 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:

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- 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; and
- The remaining Local Plan site at Harry Stoke sets out provision for a new 1.5FE primary school.

C.39 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).

C.40 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.
- Plans for a new secondary school through the DfE's Wave 14 Free Schools Programme to provide 900 secondary school places.

Economic Development

C.41 Through the Core Strategy, the authority allocates and protects approximately 1,267ha of employment and through a series of policies:

- CS11 Distribution of economic development land; and

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- CS12 Safeguarded areas for economic development.

C.42 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.

C.43 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.

C.44 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.

C.45 There were an estimated 151,700 jobs in South Gloucestershire in 2020 [See reference 150]. 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.

C.46 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

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North Fringe there are almost twice as many 'jobs' as the number of resident workers (ratio of 1.8).

C.47 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.

C.48 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-19 pandemic has negatively impacted the aviation sector.

C.49 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.

C.50 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 48,000m² developed for employment generating purposes (including B1, B2, B8 as well as a primary school and care home).

C.51 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.

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C.52 Since 2013, there has been an approximate net gain of 85,900sqm of traditional ‘B’ use floorspace across South Gloucestershire. 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 167,500m2 of ‘non B-use’ employment generating floorspace. In total, this equates to 253,400m2 of employment floorspace across South Gloucestershire.

C.53 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 9,400m2 and 73,479m2 respectively. These losses have occurred throughout South Gloucestershire, across all different employment use classes. The following tables highlight the overall churn, through gains and losses.

Table C.2: Gains and losses in floorspaces in South Gloucestershire

Employment Type	Gain	Loss	Grand Total
B1. Office	17,300m ²	-26,700m ²	-9,400m ²
B2. Industrial and Warehousing	120,100m ²	-73,400m ²	46,700m ²
Mixed B-use	30,700m ²	-4,400m ²	26,300m ²
Mixed (B-use and Non-B-use)	22,300m ²	-	22,300m ²
Non B-use (including C1, C2, D1 and D2)	208,400m ²	-40,900m ²	167,500m ²
Grand Total	398,800m²	145,400m²	253,400m²

C.54 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.

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C.55 In the year to March 2020, 83% 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 (78.4% and 80.0% respectively).

C.56 From July 2020 to June 2021, the official unemployment rate in South Gloucestershire was 3.3% of the economically active population, which is considerably lower than the corresponding rates for both Great Britain (5%) and the South West of England (3.8%).

C.57 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.

C.58 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.

C.59 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).

C.60 South Gloucestershire has a gender wage gap of £6,641 which is above the national average by £1,065 which stands at £5,576.

Town Centres and High Streets

C.61 The Core Strategy safeguards 10 town centres and 2 district centres through policy CS14 (and later allocated in policy PSP31). It also includes 48

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centres/parades within table 3, however no allocation is given to these local centres/parades.

C.62 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.

C.63 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.

C.64 Since 2013, there has been a total of 15,215m² 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.

C.65 The number of vacant retail units across South Gloucestershire's allocated town centres has fluctuated over time. The following tables indicate the percentage vacancy rates by each town centre, for each year from 2013.

Table C.3: Percentage of A1 vacancy rates in South Gloucestershire’s town centres [See reference 151]

Town Centre	2013/14	2014/15	2015/16	2016/17	2018/19	2019/20
Chipping Sodbury	1.9%	3.7%	3.7%	5.6%	5.5%	-
Downend	3.3%	6.7%	3.4%	3.4%	3.4%	-
Emersons Green	0.0%	0.0%	0.0%	0.0%	0.0%	-
Filton	12.9%	16.7%	20.0%	14.3%	10.0%	-
Hanham	12.8%	18.4%	11.8%	9.1%	2.9%	-
Kingswood	16.3%	13.1%	14.3%	12.8%	15.4%	-
Patchway	-	-	-	-	28.6%	-
Staple Hill	4.8%	8.0%	4.8%	6.9%	6.3%	-
Stoke Gifford	-	-	-	-	0.0%	-
Thornbury	8.2%	11.0%	6.9%	6.9%	5.8%	-
Willow Brook Centre	0.0%	3.4%	3.4%	3.4%	0.0%	-
Yate	16.5%	15.2%	12.2%	8.4%	9.1%	-

Note: Patchway and Stoke Gifford have only been surveyed since 2019.

C.66 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.

C.67 With regards to the provision of leisure facilities within the town and district centres, no new facilities have been completed in South Gloucestershire since 2013. All new leisure developments that are completed have been outside of the town centre boundaries, and total 37,400m².

New Use Classes and What this Could Mean for Our Retail Centres in the Future

C.68 The amended Use Classes Order [[See reference 152](#)] 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
- Office/business uses (B1).

C.69 The following uses will be combined into a single F.2 Class:

- Shop (A1) (Not more than 280m² 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

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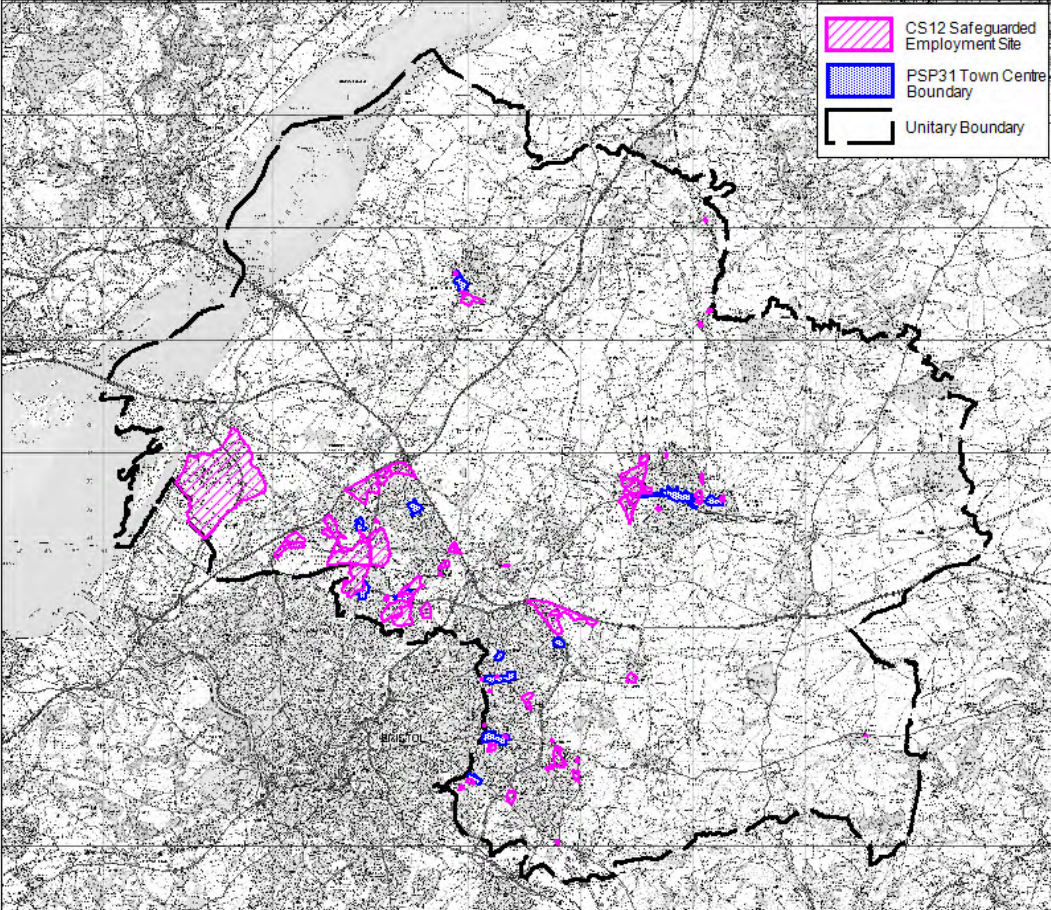
- Indoor or outdoor swimming baths, skating rinks and outdoor sports or recreations not involving motorised vehicles or firearms (D2).

C.70 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).

C.71 These changes came into being on 1 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 C.5: Map showing CS12 Safeguarded Employment Sites and PSP31 Town Centre Boundaries



Transport

C.72 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.

C.73 South Gloucestershire’s location next to a major city, its significant employment opportunities and position on the strategic road and rail network

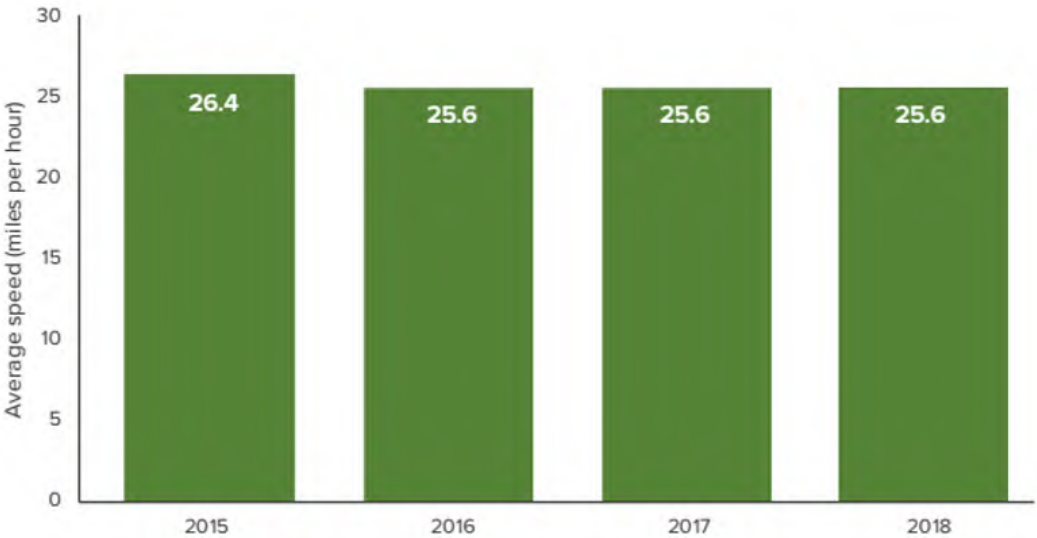
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has historically encouraged high levels of investment and growth in housing and employment. This has led to high rates of traffic growth, increasing congestion, air pollution, unsustainable commuting patterns and longer journey times. A high quality 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.

C.74 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.

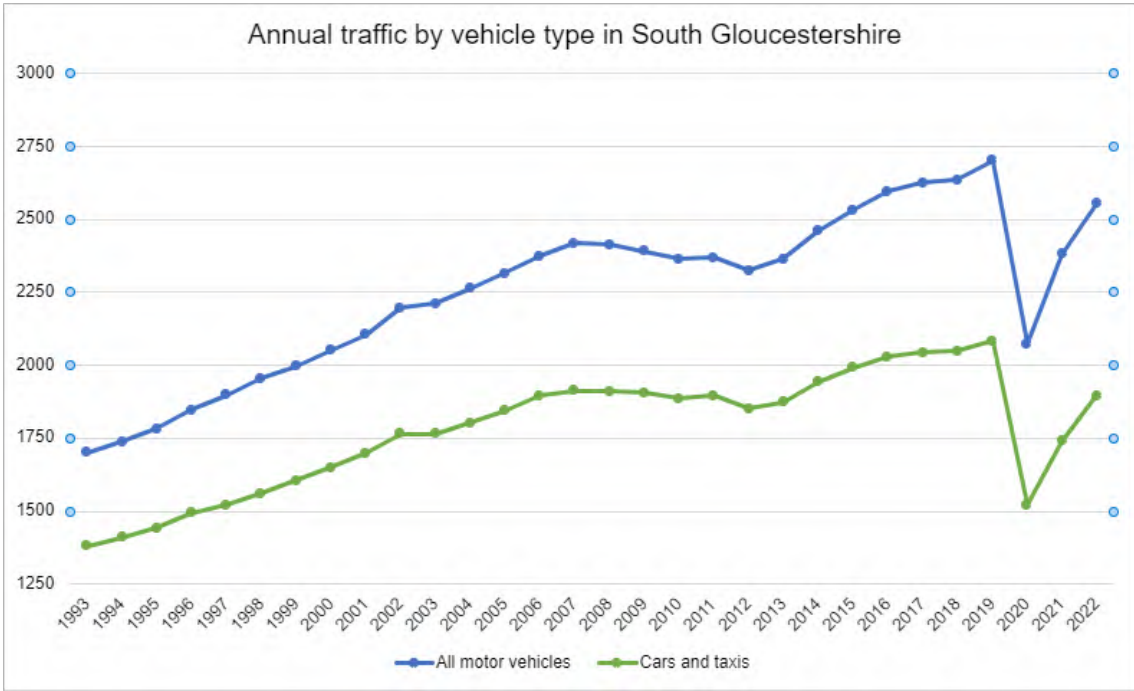
C.75 The Department for Transport’s preferred measure of congestion is to use average speed on South Gloucestershire’s locally managed A roads. This data source has now been available for four years, the past three of which have seen the figure remain the same after a 3% reduction in average speed between 2015 and 2016.

Figure C.6: Average speed when travelling on South Gloucestershire A roads [See reference 153]



C.76 Furthermore, general traffic levels within South Gloucestershire dropped significantly in 2020 due to the COVID-19 pandemic, but have increased since then.

Figure C.7: South Gloucestershire traffic growth (1993 to 2022)



C.77 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.

C.78 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.

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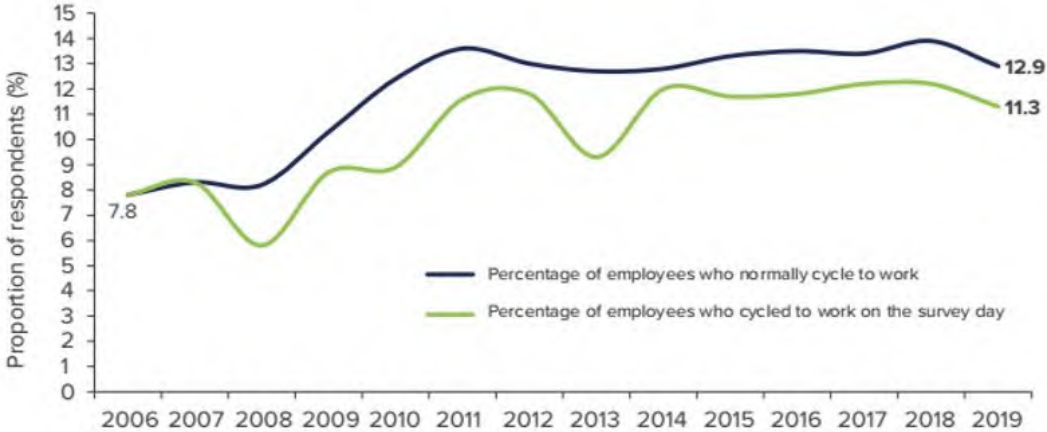
C.79 The importance of delivering travel improvements, and in particular improved transport infrastructure to support the growth are also key themes within the Strategic Economic Plan.

C.80 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.

C.81 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.

C.82 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.

Figure C.8: Proportion of employees who cycle to work [See reference 154]

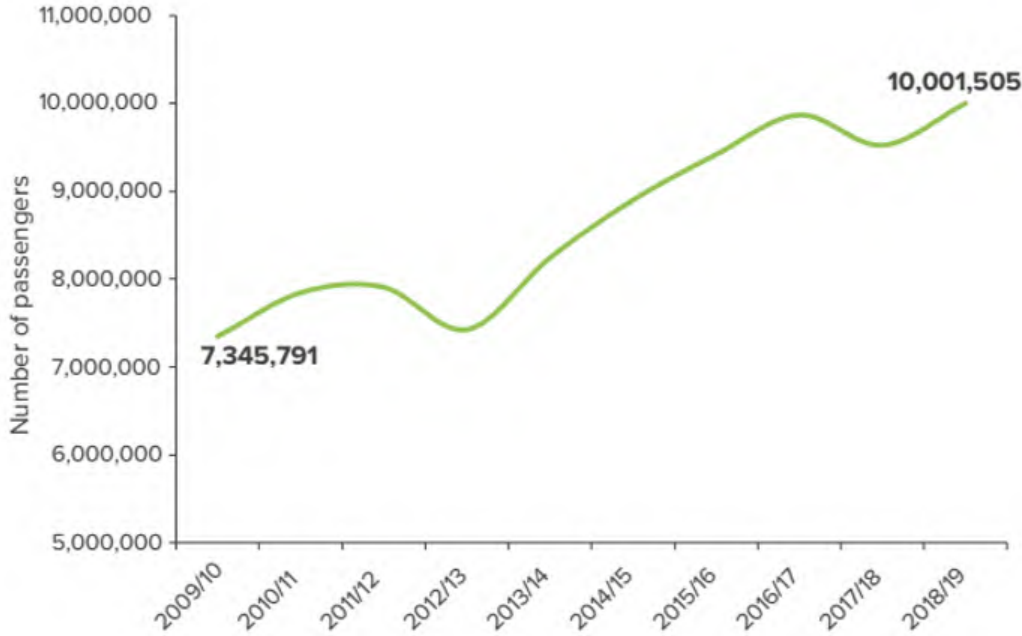


C.83 In 2018/19, just over 10 million journeys were made by bus. This is an approximate 5% increase on the previous year and continues the overall trend in the West of England for increasing bus use in recent years.

C.84 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.

C.85 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.

Figure C.9: Number of bus passengers boarding buses in South Gloucestershire



Access to Services and Facilities

C.86 Due to the varied nature of South Gloucestershire (in that it is part urban and part rural), access to services and facilities varies greatly.

C.87 In 2018, the Council produced Sustainable Access Profiles (SAPs) [See reference 155] 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

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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.

C.88 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 South Gloucestershire or on the main public transport corridors of the Badminton Road and A36.

C.89 As part of the Local Plan, the Council supplemented the 2018 information, with updates and profiles for urban areas, called Data Access Profiles (DAPs). These assist with understanding the current level of sustainable access to key services and facilities as a whole and assist with 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.

Historic Environment and Cultural Assets

C.90 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.

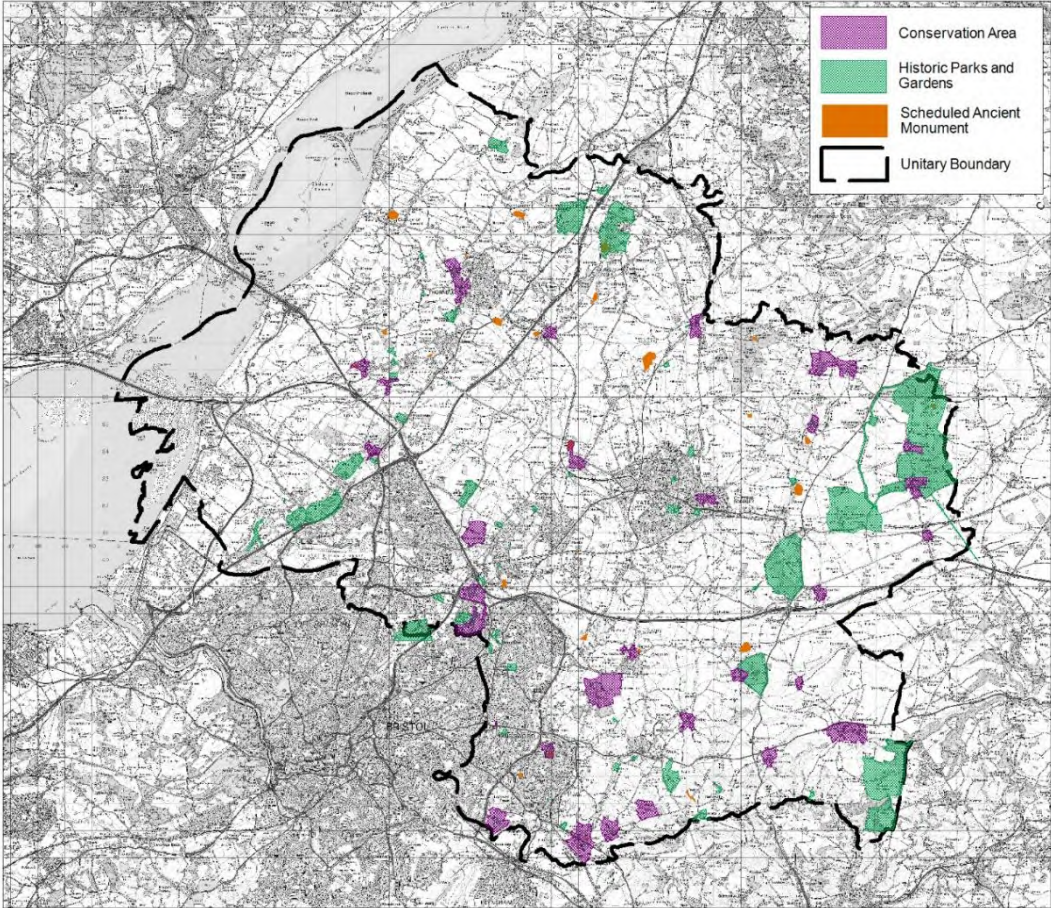
C.91 Historical assets include:

- 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.

C.92 16 of those historical assets are at risk and included on the Heritage at Risk Register 2023 [\[See reference 156\]](#).

C.93 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 42,000m² arena and events space at Filton to serve the wider sub-region.

Figure C.10: Map showing Conservation Areas, historic parks and gardens and scheduled ancient monuments



Landscape

C.94 South Gloucestershire has many contrasting landscapes, ranging from the Cotswolds National Landscape, an 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 Cotswolds 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 South Gloucestershire is predominantly

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rural and agricultural comprising of landscape ridges, hillsides and views that frame the urban area and provide the setting for rural villages and settlements.

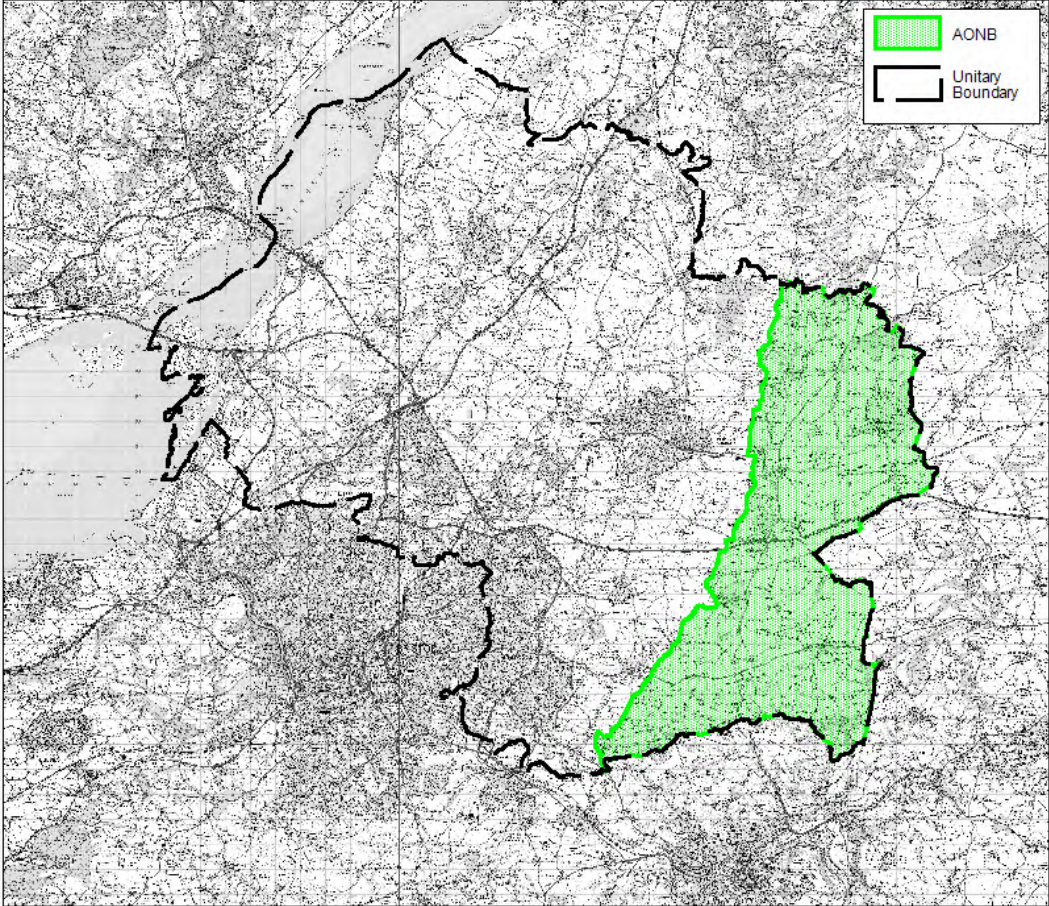
C.95 South Gloucestershire's landscape is greatly influenced by large-scale scarp, ridges, vales, levels and estuary landforms, overlain by a variety of land cover, in places comprising unique natural or historic features. Trees and woodlands currently cover approximately 11% of South Gloucestershire.

C.96 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).

C.97 The Landscape Character Assessment (LCA) SPD (2014) [\[See reference 157\]](#) 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.

C.98 The pressure for growth and change across South Gloucestershire will have an impact on the existing landscapes and their character.

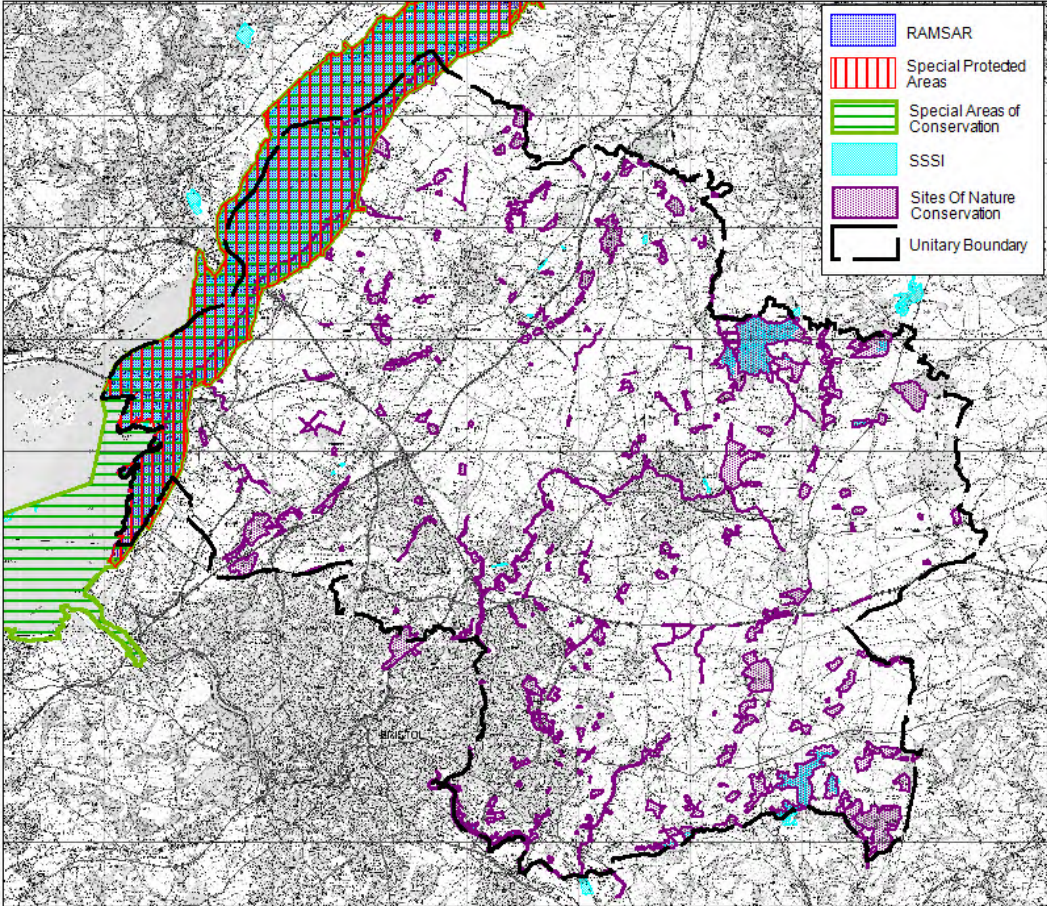
Figure C.11: Map showing the extent of the Cotswolds National Landscape



Biodiversity, Flora and Fauna

C.99 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 Chitting Warth (Avonmouth) and the 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 C.12: Map showing the international, national and local ecology constraints



C.100 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).

C.101 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

C.102 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'.

C.103 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 4 [[See reference 158](#)].

C.104 The Council maintains a list of the previously developed land in South Gloucestershire 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

C.105 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.

C.106 The aggregate mineral resources 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.

C.107 About 3.59 million tonnes of crushed rock aggregate was produced at quarries in the West of England in 2017, a small decrease of 0.13 million tonnes (3.5%) on the 3.72 million tonnes that was produced in 2016. Similarly, the ten year average crushed rock production (sales) figure for 2008-2017 of 3.37 million tonnes represents a small decrease on the levels seen in the previous two years (3.4 million tonnes and 3.41 million tonnes). The three year (2015-2017) average for crushed rock production (sales) is 3.64 million tonnes, so is higher than the 10 year average.

C.108 Total permitted reserves in WoE at the end of 2017 were 127.96 million tonnes giving a landbank of just under 38 years based on the average annual production over the 10 year period 2008-2017 (3.37 million tonnes). 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.

Air Quality

C.109 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 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 South Gloucestershire 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.

C.110 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 [\[See reference 159\]](#) 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.

C.111 The Air Quality Annual Status Report [\[See reference 160\]](#) for the authority notes that the main air pollutant of concern is nitrogen dioxide which mostly arises from road traffic. Until the COVID-19 pandemic the air quality in South Gloucestershire had been gradually improving, however in 2021 an increase in annual mean nitrogen dioxide concentrations was reported.

Noise

C.112 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.

C.113 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

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Gloucestershire the total number of noise complaints has risen steadily over the last 10 years to just under 1000 for 2014/15.

C.114 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%.

C.115 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.

C.116 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

C.117 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'.

C.118 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.

C.119 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.

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C.120 The 2019 assessment therefore showed a different overall picture, with no ‘good’ classifications, 17 ‘moderate’ and 5 ‘poor’.

C.121 The Department for Environment, Food and Rural Affairs [See reference 161] 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 [See reference 162].

C.122 The 2022-2027 Bristol Avon Catchment Plan [See reference 163] (of which South Gloucestershire lies within) notes that only 12% 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:

- Fish populations are low due to a combination of poor water quality, sediments damaging spawning areas and weirs impeding their ability to move to better areas of the catchment;
- Climate change is significantly increasing the pressures on the water environment; and
- 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.

C.123 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.

C.124 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.

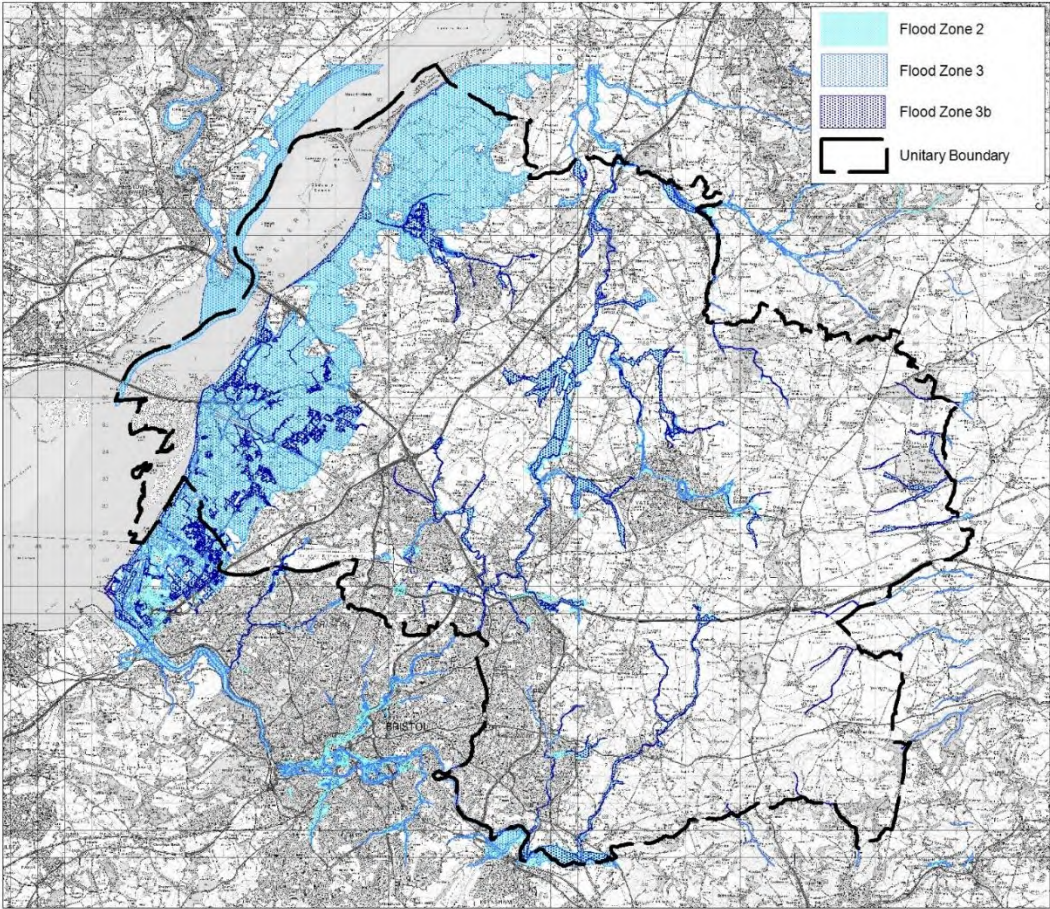
Flood Risk

C.125 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 South Gloucestershire particularly to the west display a high risk of fluvial flooding. The 2021 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.

C.126 The areas of Zone 2 and Zone 3 flooding are indicated on the map overleaf.

Figure C.13: Map showing the various flood zones



C.127 The data shows the most frequent cause of flooding within South Gloucestershire to be fluvial along main rivers, surface water in inland and urban areas; tidal along the coastline; and a combination of tidal and fluvial flooding in the Severn Estuary-draining tidal plain, particularly in the area of the Lower Severn IDB.

C.128 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.

C.129 Surface water flooding is a major concern within South Gloucestershire. Urban areas within north and north east Bristol, and include sections of communities within Filton and Kingswood, as well as Thornbury, Emerson's

Green, Longwell Green, Yate, Pilning, Hanham, Aust and North Common, are at the 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

C.130 An estimated annual total of 259.6 Gigawatt (GWh) hours of energy was generated from renewable sources within South Gloucestershire (as of September 2020) [See reference 164]. The largest contributors to renewable energy generation is currently solar photovoltaic (PV), landfill gas, energy from waste (EFW), large scale biomass, wind and hydropower [See reference 165]. The vast majority of renewable generation comes from renewable electricity. Progress on renewable heat has been far slower.

C.131 There is presently enough installed capacity for electricity generation to meet the equivalent of 28% of local consumption. The amount of renewable heat generated currently is low, covering only the equivalent of 1% of local demand. Between September 2018 and September 2019, there were 102 new renewable energy projects installed in South Gloucestershire but the total capacity increase was only 0.7MW, which is less than 10% of the previous year's increase. This period saw no projects commissioned that are above 50kW. 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 2021, South Gloucestershire had a total of 183.3MW of installed renewable energy capacity, including heat and electricity. Solar PV is the largest technology type, making up 79% of the capacity installed.

C.132 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 and Nature Emergency action plan sets out actions with regard to renewables such as the energy efficiency program development and community renewables development which support the delivery of increased renewable energy generation capacity in the area.

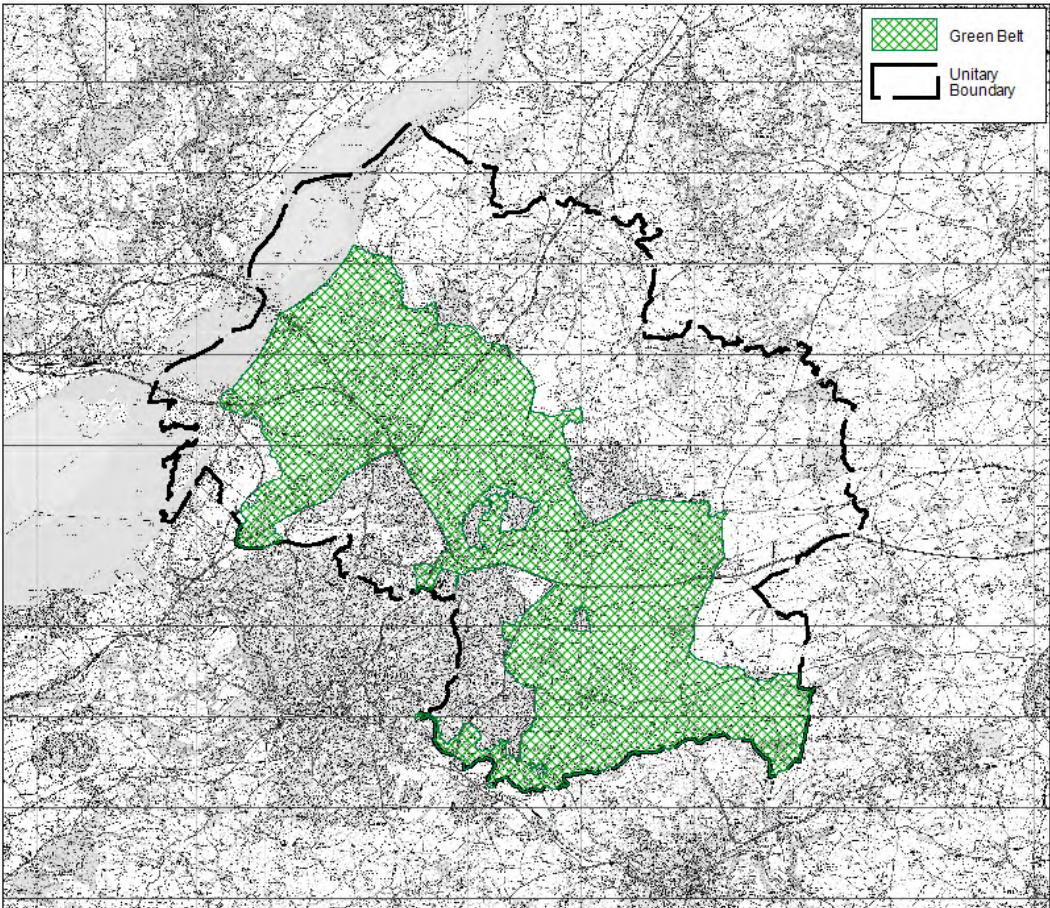
Green Belt

C.133 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.

C.134 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, 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.

C.135 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 205.47ha – 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 C.14: Map showing the extent of the Green Belt



Appendix D

Effects Criteria for Site Appraisal Work

Theme 1. Climate change

Sustainability Objective 1a

- 1a. To minimise South Gloucestershire’s contribution to climate change through a reduction of greenhouse gas emissions from all sources and facilitate the aim of carbon neutrality by 2030.
 - Promote energy efficient and water efficient design.
 - Encourage the provision and use of renewable energy infrastructure.
- NB: Greenhouse gas emissions associated with travel were covered under another SA objective.

Effects Criteria

- Uncertain for all sites – At present the level of information required to determine if the location of new development would provide opportunities to link into an existing energy network or district heating is not available for all sites being considered. The potential for a site to promote the use of more sustainable modes of transport and limit the emission of greenhouse gas has been considered through other SA objectives. Therefore, an ‘uncertain’ effect is recorded for all sites in relation to this SA objective.

Sustainability Objective 1b

- 1b. To support South Gloucestershire’s adaptation to unavoidable climate change.

Appendix D Effects Criteria for Site Appraisal Work

- 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?

Effects Criteria

- Uncertain for all sites – The potential for measures which might support climate change adaptation to be incorporated at sites, will be addressed through specific site design, which is unknown at this stage. Therefore, an ‘uncertain’ effect is recorded for all sites in relation to this SA objective.

Theme 2. Improve the health, safety and wellbeing of all

Sustainability Objective 2a

- 2a. Achieve reasonable access to public open space and Public Rights of Way, taking into account quality and quantity.
 - Reasonable distance – In line with Institute of Highways and Transportation (IHT) categories.

Effects Criteria

- Significant positive effect – Development within 720m of public open space AND Public Rights of Way.
- Minor positive effect – Development within 720m of a public open space or Public Rights of Way (but not both).

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- Uncertain significant negative effect – Development on public open space which could reduce quantity, quality and accessibility for the area.
- Minor negative effect – Development does not include provision of open space AND is not within 720m of either a public open space OR Public Rights of Way.

Sustainability Objective 2b

- 2b. Minimise the impact of noise on sensitive receptors.
 - Sensitive uses = residential, schools.
 - Relevant distance – Within 100m to noise generating uses.

Effects Criteria

- Significant negative effect – Sensitive developments located within 100m of noise generating uses e.g. major roads and infrastructure, industrial sites.

Sustainability Objective 2c

- 2c. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality.
 - Relevant distance – Sites that are directly within, 100m from or on routes that lead directly to an AQMA (both within and outside of South Gloucestershire).

Effects Criteria

- Significant negative effect – Development that lies within or within 100m of an AQMA.

Sustainability Objective 2d

- 2d. Achieve reasonable sustainable access to healthcare services and facilities (Doctors and Dentists).
 - Reasonable walking and cycling distance:
 - GP Surgery – 720m
 - Dentist – 720m

Effects Criteria

- Significant positive effect – Development located within 720m of existing healthcare facilities AND within 1.8km of a railway station or 450m of a bus stop.
- Minor positive effect – Development within 720m of existing healthcare services and facilities OR within 1.8km a railway station or 450m of a bus stop.
- Minor negative effect – Development that is more than 720m from any existing healthcare facilities AND more than 1.8km from a railway station and more than 450m from a bus stop.

Theme 3. Support communities that meet people's needs

Sustainability Objective 3a

- 3a. Deliver a suitable quantum of high quality affordable housing for South Gloucestershire.

Effects Criteria

- Significant positive effect – 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; and sites that would accommodate 100 homes or more in urban areas or 50 or more in rural areas.
- Minor positive effect – 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; and sites that would accommodate fewer than 100 homes in urban areas or less than 50 in rural areas [See reference 166].
- Negligible effect – All employment and mixed use sites are expected to have a negligible effect.

Sustainable Objective 3b

- 3b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within South Gloucestershire.

Effects Criteria

- Significant positive effect – 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; and sites that would accommodate 100 homes or more in urban areas and more than 50 homes in rural areas.
- Minor positive effect – 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; and sites that

Appendix D Effects Criteria for Site Appraisal Work

would accommodate fewer than 100 homes [See reference 167] in urban areas and less than 50 in rural areas.

- Negligible effect – All employment and mixed use sites are expected to have a negligible effect.

Sustainability Objective 3c

- 3c. Achieve reasonable sustainable access to community facilities (Post Office, Dedicated Community Centre, Public House, Library).
 - Reasonable walking or cycling distance:
 - Post Offices – 720m
 - Dedicated Community Centres – 720m
 - Public House – 720m
 - Library – 720m

Effects Criteria

- Significant positive effect – Development within 720m of all facilities (post offices, community centres, pubs and libraries) OR within 1.8km to town centres and railway stations; and provision of community facilities as part of any allocation.
- Minor positive effect – Development within 720m of some, but not all community facilities AND/OR to town centres and railway stations.
- Significant negative effect – Development beyond 1.8km of any railway stations, town centres and community facilities.
- Minor negative effect – Development beyond 720m to any community facility AND railway station or town centre.

Sustainability Objective 3d

- 3d. Achieve reasonable sustainable access to educational facilities (primary schools, secondary schools).
 - Reasonable walking or cycling distance:
 - Primary School – 450m
 - Secondary School – 900m

Effects Criteria

- Significant positive effect – Residential development within 450m of a primary school and 900m of a secondary school; and Development which adds to capacity of educational facilities.
- Minor positive effect – Residential development within 450m of a primary OR 900m of a secondary school but not both.
- Negligible effect – All employment and mixed use sites are expected to have a negligible effect.

Sustainability Objective 3e

- 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).
 - Reasonable walking and cycling distance:
 - Town and District Centre – 720m
 - Supermarkets – 720m
 - Local Convenience and Comparison Stores – 720m

Effects Criteria

- Significant positive effect – Development within 720m of supermarkets, local convenience stores, town, district or local centres.
- Minor positive effect – Development within 720m of two retail and food buying services and facilities.
- Significant negative effect – Development beyond 720m of supermarkets, local convenience stores, town, district or local centre.
- Minor negative effect – Development within 720m of one retail and food buying services and facilities.

Sustainability Objective 3f

- 3f. Reduce the need to travel and encourage sustainable and active alternatives to motorised vehicles to reduce congestion.

Effects Criteria

- Significant positive effect – Development within 450m of other public transport services such as bus stops and active travel routes. And development within 800m of the metro bus network and 1.8km of train station.
- Minor positive effect – Development within 450m of other public transport services such as bus stops and active travel routes.
- Significant negative effect – Development beyond 450m of other public transport routes, 800m of a metro bus network stop and 1.8km of a railway station.
- Minor negative effect – Development beyond 450m of other public transport routes, but within 800m of a metro bus network or 1.8km of a railway station.

Sustainability Objective 3g

- 3g. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage around Kingswood; Staple Hill and Yate.
 - Relevant distance:
 - Significant positive – Within areas identified as most deprived 20%.
 - Minor positive – Adjacent to areas identified as most deprived 20%.

Effects Criteria

- Significant positive effect – Economic development within areas identified as the most deprived 20% of areas in England.
- Minor positive effect – Economic development that is within 50m of areas identified as the most deprived 20% of areas in England.
- Negligible effect – Economic development farther than 50m of areas identified as the most deprived 20% of areas in England.

Theme 4. Development of a diverse and thriving economy that meets people's needs

Sustainability Objective 4a

- 4a. Deliver a reasonable quantum of employment floorspace.

Effects Criteria

- Significant positive effect – Economic development that provides significant (1.0ha) of additional employment land [\[See reference 168\]](#).
- Minor positive effect – Economic development that provides enhanced or a minor amount of additional employment land (i.e. less than 1.0ha).
- Negligible effect – Residential sites that do not provide economic development and do not lead to the loss of employment land are considered negligible.

Sustainability Objective 4b

- 4b. Achieve reasonable sustainable access to major employment areas.
 - Employment Areas within 2km walk or 5.6km cycle:
 - Enterprise Areas/Zones (EAs/EZs)
 - Major Employer (100+ employees)
 - Safeguarded Employment Areas
 - Town Centres

Effects Criteria

- Significant positive effect – Residential development within 450m of an Enterprise Areas/Zones (EAs/EZs), or Major Employers or Town Centres AND 1.8km from a train station.
- Minor positive effect – Residential development within 450m of one or more Safeguarded Employment areas, Major Employers or Town Centres OR within 450m of an Enterprise Areas/Zones and 1.8km from a train station.
- Negligible effect – Any sites proposed for economic development would have no effect.

- Significant negative effect – Residential development beyond 720m of any employment areas AND beyond 1.8km of a train station.
- Minor negative effect – Residential development within 720m of a Safeguarded Employment Area, Major Employer or Town Centre or within 1.8km of a train station.

Theme 5. Maintain and improve environmental quality and assets

Sustainability Objective 5a

- 5a. Designated Assets: Minimise impact on and where appropriate enhance the historic environment, natural heritage assets and their settings.
 - Designated assets:
 - Listing Buildings, Grade I, Grade II*, Grade II
 - Conservation Areas
 - Scheduled Ancient Monuments
 - Registered Historic Parks and Gardens
 - Registered Battlefields
 - Non-designated archaeology which is demonstrably of equivalent significance to scheduled monuments

Effects Criteria

- Negligible effect – Development that has been assessed as having no potential to have adverse impacts relating to designated heritage assets.

- Significant negative effect – 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.

Sustainability Objective 5b

- 5b. Undesignated Assets: Minimise impact on and where appropriate enhance the historic environment, local heritage assets and their settings.
 - Local assets:
 - Unregistered Historic Parks and Gardens
 - Non-designated Heritage Assets
 - Locally Listed Buildings

Effects Criteria

- Negligible effect – Development that has been assessed as having no potential to having adverse impacts relating to undesignated heritage assets.
- Minor negative effect – 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; development in a location that has been assessed as having the potential to lead to loss of character and setting of a local asset; development that has been assessed as having the potential to lead to harm or change of significance to a local asset; and development in a location that has been assessed as having the potential to lead to harm of character and setting of a local asset.

Sustainability Objective 5c

- 5c. 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.
 - International and European designated sites:
 - Special Areas of Conservation (SAC)
 - Special Protection Areas (SPA)
 - RAMSAR
 - Note: 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.
 - National sites and assets:
 - SSSI
 - National Nature Reserves
 - Local Nature Reserves
 - UK Priority Habitat
 - Ancient Woodland
 - Local sites:
 - SSSI
 - Habitat Networks
 - Local Wildlife Sites?

Effects Criteria

- Negligible effect – Development that is more than 1km from any internationally or nationally designated biodiversity or geodiversity sites or that are over 250m from a locally designated site or ancient woodland.

Appendix D Effects Criteria for Site Appraisal Work

- Significant negative effect – Development that is within 250m of one or more internationally or nationally designated biodiversity or geodiversity sites.
- Minor negative effect – 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 or is within 15m of an area of ancient woodland.

Sustainability Objective 5d

- 5d. Minimise impact on and where appropriate enhance valued landscapes (including the Cotswolds AONB and its setting).
 - National designations:
 - AONB
 - Ancient Woodland

Effects Criteria

- Uncertain significant negative effect – Development that is not located near any settlements and is in a rural area would have a significant negative (--?) effect on landscape, although this is uncertain. In addition, sites that are within 500m of the AONB or Ancient Woodland could have a significant negative effect.
- Minor negative effect – Development that is located on the edge of a settlement area would have a minor negative (-?) effect on landscape, although this is uncertain; and development that is located on a visually important hillside.
- Negligible effect – Development that is located within a settlement and that is not on a visually important hillside will have a negligible effect.

Sustainability Objective 5e

- 5e. Deliver a range and quality of, and increased access to new green infrastructure across South Gloucestershire AND protect and enhance existing GI.
 - Green Infrastructure typology:
 - Parks and Gardens
 - Amenity Greenspace – Including informal recreation spaces, domestic gardens, village greens, green roofs
 - Natural and Semi-natural Urban greenspace – Including woodland and scrub, grassland, heath and moor, wetlands, open and running water
 - Green Corridor – Rivers and canals including their banks, road and rail corridors, cycling routes, pedestrian paths, and rights of way
 - Other – Allotments, community gardens, city farms, cemeteries and churchyards

Effects Criteria

- Significant negative effect – Development on land within a strategic GI corridor.
- Minor negative effect – Development within 50m to land within a strategic GI corridor.
- Negligible effect – Development that is not within or adjacent to a strategic GI corridor.

Sustainability Objective 5f

- 5f. Promote the conservation and wise use of land, maximising the re-use of previously developed land.

Effects Criteria

- Significant positive effect – Major Development (sites that would provide 100 or more homes or sites of 1.0ha or more for non-residential uses) which would proceed on land which is previously developed land/brownfield.
- Minor positive effect – Minor development (sites that would provide fewer than 100 homes or sites smaller than 1.0ha for non-residential uses) which would proceed on land which is partly previously developed land/brownfield.
- Significant negative effect – All development which would proceed on land which is previously undeveloped/greenfield.

Sustainability Objective 5g

- 5g. Minimise the loss of productive land, especially best and most versatile agricultural land.

Effects Criteria

- Minor positive effect – Development entirely on brownfield land.
- Negligible effect – Development on brownfield land.
- Significant negative effect – Development on greenfield land that contains a significant proportion ($\geq 25\%$) of Grade 1 and/or 2 agricultural land.
- Uncertain significant negative effect – Development on greenfield land that contains a significant proportion ($\geq 25\%$) of Grade 3 agricultural land. The uncertainty acknowledges that the Grade 3 agricultural land may be either Grade 3a (high quality) or 3b (not classed as high quality).
- Minor negative effect – Mainly or entirely greenfield sites that contains a less than significant proportion ($< 25\%$) of Grade 1, 2, or 3 agricultural land.

Sustainability Objective 5h

- 5h. Minimise vulnerability to tidal/fluvial flooding (taking account of climate change), without increasing flood risk elsewhere.

Effects Criteria

- Negligible effect – Development mostly on land that is outside of flood zones 3a or 3b.
- Significant negative effect – Development entirely or significantly ($\geq 25\%$) within flood zones 3a or 3b.

Sustainability Objective 5f

- 5i. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere.

Effects Criteria

- Negligible effect – Development on brownfield land outside areas at risk from surface water or ground water flooding.
- Significant negative effect – Development proposed mostly ($\geq 25\%$) within identified areas at high risk from surface water or ground water flooding.
- Minor negative effect – Development on greenfield land which has potential to increase surface water flood risk.

Sustainability Objective 5j

- 5j. Minimise harm to, and where possible protect and enhance (surface and groundwater) water quality and quantity/availability.

Effects Criteria

- Negligible effect – Development outside of a Source Protection Zone.
- Minor negative effect – Development partially ($\geq 25\%$) or entirely within a Source Protection Zone.

Theme 6. Use of natural resources

Sustainability Objective 6a

- 6a. Reduce waste.

Effects Criteria

- Uncertain minor positive effect – Development mainly or entirely 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 ($\geq 25\%$) on greenfield land is unlikely to provide opportunities to reuse and recycle buildings and materials onsite as well as demolition waste.

Sustainability Objective 6b

- 6b. Minimise consumption and extraction of minerals.

Effects Criteria

- Negligible effect – Development located outside of a Minerals Safeguarding Area.

Appendix D Effects Criteria for Site Appraisal Work

- Minor negative effect – Development located within a Minerals Safeguarding Area.

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- 2 [LUC \(2022\) South Gloucestershire Local Plan 2020 Phase 2: Urban, Rural and Key Issues Consultation Document: Sustainability Appraisal Report](#)
- 3 [South Gloucestershire Council \(2023\) Key facts and figures about the area](#)
- 4 [Nomis \(2022\) Labour Market Profile – South Gloucestershire](#)
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- 6 At the time, the new Local Plan was referred to as the Local Plan 2020.
- 7 The Planning and Compulsory Purchase Act 2004 was amended under the Environmental Assessments and Miscellaneous Planning (EU Exit) Regulations 2018.
- 8 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) and The Environmental Assessment of Plans and Programmes (Amendment) Regulations 2020 (SI 2020/1531).
- 9 The Institution of Highways and Transportation (2000) Guidelines for Providing for Journeys on Foot
- 10 Presently the only made Neighbourhood Plan in South Gloucestershire is that for Charfield although the Thornbury and Oldbury on Severn Neighbourhood Plans are at a late stage in the Examination process.
- 11 Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework
- 12 Department for Levelling Up, Housing and Communities (2023) Planning Practice Guidance
- 13 The updated PPG clarifies that this requirement of the NPPF is to be applied “where most of the development arising from larger scale developments proposed in the plan will be delivered well beyond the plan

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- period, and where delivery of those developments extends 30 years or longer from the start of the plan period”. Furthermore, where this requirement applies “the authority will need to ensure that their vision reflects the long-term nature of their strategy for the plan or those larger scale developments. It is not anticipated that such visions would require evidence in addition to that already produced to support the plan”.
- 14 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.
 - 15 [Department for Transport \(2020\) Decarbonising Transport: Setting the Challenge](#)
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- 30 [Ministry of Housing, Communities and Local Government \(2020, updated 2021\) The Charter for Social Housing Residents: Social Housing White Paper](#)
- 31 [Public Health England \(2019\) PHE Strategy 2020-25](#)
- 32 [HM Government \(2018\) A Green Future: Our 25 Year Plan to Improve the Environment](#)
- 33 [Department for Communities and Local Government \(2017\) Fixing our broken housing market](#)
- 34 [Department for Communities and Local Government \(2015\) Planning policy for traveller sites](#)
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- 36 [Select Committee on Public Service and Demographic Change \(2013\) Ready for Ageing? Report](#)

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- 37 [HM Government \(2011\) Laying the Foundations: A Housing Strategy for England](#)
- 38 [Fair Society, Healthy Lives – The Marmot Review \(2010\)](#)
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- 164** [South Gloucestershire Council \(2021\) South Gloucestershire Renewable Energy Progress Report 2019-20](#)
- 165** [South Gloucestershire Council \(2021\) Renewable Energy Resource Assessment Study – Chapter 3: Baseline Energy Consumption and Low and Zero Carbon Energy Technologies in South Gloucestershire](#)
- 166** 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 be recorded for sites with capacity for this number of homes or more.
- 167** 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 be recorded for sites with capacity for this number of homes or more.
- 168** 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.

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