
Gloucester, Cheltenham & Tewkesbury



Joint Core Strategy Proposed Main Modifications

Sustainability (Integrated) Appraisal Addendum Report

October 2016

Gloucester, Cheltenham & Tewkesbury Joint Core Strategy: Main Modifications

Integrated Appraisal incorporating Strategic Environmental Assessment, Habitats Regulations Assessment, Health and Equality Impact Assessment

Sustainability (Integrated) Appraisal Addendum Report:

For and on behalf of Enfusion Ltd

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Gloucester, Cheltenham & Tewkesbury Joint Core Strategy (JCS): Proposed Main Modifications Sustainability (Integrated) Appraisal (SA) Addendum Report

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1.0 INTRODUCTION & PURPOSE OF THE SA ADDENDUM REPORT

Submission of the JCS & Examination (2015-2016)

- 1.1 The JCS (SUB 100) was submitted to the Planning Inspectorate in November 2014 and accompanied by the SA Report (October 2014, SASUB100-102), the Equality & Diversity Impact Assessment Report (SADR 113-115) and the HRA Report (October, 2013 SADR 116-121) in accordance with the Town & Country Planning (Local Planning) Regulations 2012, the National Planning Policy Framework, the SEA Regulations and the Habitats Regulations Assessment Regulations. The three stages of examination hearings between May 2015 and July 2016 have attracted considerable public participation and suggested amendments to the plan.
- 1.2 The Inspector's Interim Report¹ (May 2016, EXAM 232) sets out the conclusions of the examination to date, including recommendations with regard to main modifications to the JCS. Some matters and issues for the SA were raised and addressed during the hearings. Any proposed main modifications that might give rise to significant sustainability effects need to be subject to Sustainability Appraisal. The purpose of this SA Addendum Report is to:
- explain matters with regard to the SA that have been raised through the examination stages
 - demonstrate how the proposed main modifications have been screened for significance with regard to SA requirements
 - report the refreshed and new SA
- 1.3 The principle of resolving matters raised through examination by publication of an SA Addendum Report is established in English Case Law (see The Rochford Judgment²). SA is an iterative and ongoing process that aligns with the iterative plan-making process. There is no requirement to repeat previous appraisal studies and this SA Addendum Report addresses matters and issues arising from the examination and proposed modifications of the JCS. With regard to compliance with legislative and policy requirements, this SA Addendum Report comprises a further part of the SA Report as submitted in November 2014 and has been prepared in accordance with relevant guidance and legislative requirements. It seeks to be a proportionate assessment relevant to the stage of plan-making and in line with NPPF requirements (paragraph 167).

Consultation Representations on the Submission SA Report (2014)

- 1.4 Representations were made through Hearing Statements submitted to the examination and included issues raised on the SA Report submitted with the JCS (November 2014). These SA concerns and responses to the issues raised

¹ <http://www.gct-jcs.org/Documents/Examination-Documents/EXAM232---JCS-Inspectors-Interim-Findings---31052016.pdf>

² Cogent Land LLP v Rochford District Council (2012) EWHC 2542

are summarised (as they were at the time) in Appendix A of this report (Matter 6 Spatial Strategy May 2015 & Matter 8 Strategic Allocations July 2015). Concerns about the consideration of reasonable alternatives in the SA related to the strategic allocations proposed. These matters have been discussed through examination and considered through further plan-making such that many of the issues for the sites have been superseded - the main modifications to the JCS propose changes to the strategic allocations. These have been screened for their significance with regard to SA and where necessary, have been subject to refreshed or new appraisal. Thus, developments in plan-making have resolved and superseded the main concerns raised on the SA by changes in the proposed Strategic Allocations in Policy SA1. The implications for the SA are discussed in section 3 and detailed in Appendices B-C of this SA Addendum Report.

Revised Housing Requirement & Proposed Main Modifications

- 1.5 Based on updated economic evidence and the Councils' revised economic strategy for the JCS area, the Inspector asserted in her Interim Report (May 2016 EXAM 232) that the Objectively Assessed Housing Need (OAHN) for the JCS area is 33,500 dwellings for the plan period 2011-2031. A policy uplift of 5% on 33,500 (1,675) making a total housing requirement (rounded) of 35,170 dwellings was recommended in order to provide more certainty and choice for delivery. The proposed Main Modifications are mostly concerned with this uplift in housing requirements and meeting this need through strategic allocations.

Structure of this SA Addendum Report

- 1.6 The following section 2 summarises the approach and methods applied at this stage of the SA process. Section 3 summarises the findings of the further SA work with the details in technical appendices A-C. An overall summary and the next steps are provided in section 4.

2.0 METHODS

Appraising Strategic Options

- 2.1 The Inspector's Interim Report (EXAM 232) included certain recommendations regarding consideration of new strategic options for proposed allocations and reconsideration of submitted strategic allocations to address matters raised and discussed during the examination. New strategic options were subject to detailed SA using the SA framework and methods previously reported (in 2014 (SASUB 100-102), and using any relevant updated baseline evidence, thus providing continuity and consistency of process.

Screening Proposed Main Modifications for SA Significance

- 2.2 Many of the proposed changes to the GCT JCS are minor, concerned with correcting errors, addressing omissions, and providing more clarity. The main changes are associated with the requirement for the uplift in housing and the implications for the Strategic Allocations, together with the consultation concerns discussed at the examination hearings. The proposed changes were screened for their significance with regard to SA using professional judgment – do the changes, deletions and additions significantly affect the findings of the SA Report (2014) accompanying the JCS Submission and/or do they give rise to significant environmental/sustainability effects?

SA of Strategic Allocations & the JCS with Proposed Main Modifications

- 2.3 The refreshed and new appraisals identified as required through the screening were carried out using the same methods and SA Framework of Objectives as the previous work, reported in 2014 (SASUB 100-102), and using any relevant updated baseline evidence, thus providing continuity and consistency of process. The appraisals were undertaken to the same level and by the same independent specialist consultants.

HRA

- 2.4 The new proposed Strategic Allocations (A10 Winnycroft & A11 West Cheltenham), the amended Strategic Allocation (A1 Innsworth), and the other strategic options considered again (Fiddington & Mitton) were subject to HRA screening using the previous method and as described in the HRA Report May 2014 (SAPR 114-119).

3.0 SA FINDINGS

Alternatives Considered for SA

- 3.1 The requirement for, and the consideration of, alternatives in the SA process and the interactions with the plan-making process are explained in detail in section 4 of the SA Report (SASUB 102-102). All strategic options considered to be reasonable (i.e. suitable and deliverable in the plan period) in plan-making have been subject to SA. As the emerging JCS has evolved through stages of consultation and evidence-gathering, development needs and proposed strategic allocations have changed.
- 3.2 It is a requirement of the SA process that the summary reasons for selecting and rejecting reasonable alternatives should be provided in the SA Report. Table 7.2 in the Submission SA Report (SASUB 100-102) presents this information. However, as a result of discussions during the examination hearings, updated evidence, and the proposed main modifications to the JCS, it is now possible to provide further details of the reasoning for the progression, or non-progression, of options for Strategic Site Allocations. This is presented in Table 3.1 on the following pages.
- 3.3 The Inspector in her Interim Report (EXAM 232) suggested reconsideration of certain strategic options for development allocation:
- Twigworth
 - Winnycroft
 - Brookthorpe/Whaddon & Hardwicke
 - Leckhampton
 - West Cheltenham
 - Fiddington
 - Mitton
- 3.4 The Twigworth site had been subject to detailed SA previously, as reported in October 2014 (SASUB100-102) and this has been refreshed to take into account updated baseline information, including from representations made at the examination. The Innsworth site had been subject to detailed SA previously, as reported in October 2014 (SASUB100-102) and this has been refreshed in accordance with the recommendations made in the Inspector's Interim Report (EXAM 232). Details of the SAs are provided in Appendix C to this SA Addendum Report.
- 3.5 Winnycroft is a new strategic site option and this was subject to SA to the same level as other options and the findings are detailed here in Appendix C.
- 3.6 Brookthorpe/Whaddon & Hardwicke sites had been previously subject to detailed SA and reported as non JCS sites in October 2014 (SASUB100-102). They were reconsidered but not taken forward as proposed Main Modifications since this would require agreement with Stroud Council and this

is not possible in the current timescales; they will be reconsidered again in future plan-making.

- 3.7 Significant reductions in housing numbers down to 200 dwellings were recommended for Leckhampton in consideration of high landscape and visual sensitivity. This mitigates the significant negative effects that had been found by the SA previously (SASUB100-102) and addresses concerns raised by representations at the examination. This much reduced potential housing allocation will be considered further now as a non-strategic site and within the Cheltenham Local Plan (CLP), including testing through SA with the SA Framework prepared for the CLP at the local level.
- 3.8 West Cheltenham had been initially subject to SA but not taken forward to submission; the SA was refreshed and is detailed in this report in Appendix C.
- 3.9 The strategic site option at Fiddington was subject to SA to the same level as other options and the findings are detailed here in Appendix C. It has not been taken forward as a strategic allocation due to deliverability concerns for this site, including transport issues around the A46 and M5 Junction 9 and the future infrastructure requirements. Therefore, this site is more appropriate for consideration through future review of the JCS or in the developing Tewkesbury Borough Plan (TBP) when transport issues are clearer. It will be tested through SA with the SA Framework prepared for the TBP at the local level.
- 3.10 Land at Mitton was reconsidered and a joint Planning Statement by the JCS authorities and Wychavon Council has been prepared. The Planning Statement provides a commitment to work together on the delivery of 500 dwellings in an early Phase 1 to be brought forward through the planning application process and contribute towards accommodating development growth for Tewkesbury; this counts towards the overall need identified for the GCT JCS. Any future Phase 2 of the site would be subject a future review of the South Worcestershire Development Plan (SWDP).
- 3.11 The Mitton site is not listed as a Main Modification in the JCS PMMs as it is not in the JCS area and thus cannot actually be allocated as such in the JCS Plan. However, it is clearly set out in Policy SP2 that the site is counting towards the JCS housing needs. The Mitton site had been previously subject to detailed SA and reported as a non JCS site in October 2014 (SASUB100-102). As required in the Inspector's Interim Report (EXAM 232), the SA of the Mitton site has been refreshed to take into account updated baseline information including discussions at the examination. The SA was refreshed and updated, including taking into account comments made at the examination, and the details are provided in Appendix C.

Table 3.1: Options for Strategic Allocations (2013-4 & 2015-6) Reasons for Selection or Rejection in Plan Making

Strategic Sites Options	Reasons for Selection or Rejection in Plan Making		
	Draft JCS 2013	Submission JCS 2014	JCS Proposed Modifications 2016
<p>Innsworth G1 Option 1 Description: H=55.7 ha, 1404 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities</p>	<p>G1 Option 1 combined with G1 Option 2 to provide a comprehensive approach to the development of the area. <i>Draft JCS 2013 Policy A1 – Innsworth and Twigworth Urban Extension, Gloucester.</i></p>	<p>The Twigworth part of the site has been removed from the allocation. The reason for its removal related to the recognition that the flood plain split the development of the site North/South (between Twigworth and Innsworth) and therefore created difficulties in providing a comprehensive Urban Extension.</p>	<p>Reassessment of the Twigworth site as part of a Strategic Allocation with Innsworth.</p> <p>Assessed as making only a limited contribution to the Green Belt; parts of the site outside the most hazardous flood zones so mitigation by avoidance; potential for integrating the two parts via green infrastructure.</p>
<p>Innsworth G1 Option 2 Description: H= 138.4 ha, 3488 dwellings; E= 9.1 ha; new junction from A40; 2 new primary schools and children's centres; 2 new local centres with community facilities</p>	<p>Taken forward (combined with G1 Option 1) because this option has the potential to provide a greater level of development. The flood plain in this location splits the development potential creating difficulties in providing a comprehensive urban extension. The inclusion of a site specific policy to address master-planning and the need to consider the area as a whole mitigates this concern. <i>Draft JCS 2013 Policy A1 – Innsworth and Twigworth Urban Extension, Gloucester.</i></p>	<p>Reduction in approximately 2,318 dwellings to 1,250; no change in employment land.</p> <p>Site specific requirements removed from A1 to avoid duplication in general Policy SA1</p> <p>Submission JCS 2014 Policy A1 – Innsworth</p>	<p>Twigworth capacity assessed at 1,363 dwellings, together with 1,300 at Innsworth; no change in employment land.</p> <p>Reinstatement of site specific requirements provides more certainty of mitigation for effects, especially on flood risk, GI and transport.</p> <p>Modified JCS Policy A1 Innsworth/A1a Twigworth</p>

<p>Gloucestershire Airport G2 Option 1 Description: H=33.5 ha, 844 dwellings; new vehicular access from B4063; adjacent to Gloucestershire Airport</p>	<p>Taken forward because new housing development can be delivered alongside Gloucestershire Airport remaining as an operational facility subject to any constraints including airport safety zones. Draft JCS 2013 Policy A2 – North Churchdown Urban Extension, Gloucester.</p>	<p>Reduction in dwellings to 530. Submission JCS 2014 Policy A2 North Churchdown</p>	<p>Removed due to concerns at examination regarding effects on the Green Belt.</p>
<p>Gloucestershire Airport G2 Option 2 Description: H=33.5 ha, 844 dwellings; E=5.2 ha; new vehicular access from B4063 and Parton Road; adjacent to Gloucestershire Airport with employment land allocated on the airport to the North</p>	<p>Employment element not considered strategic in nature and therefore outside the context of the JCS; small scale employment development could be taken forward through an allocation in the Tewkesbury Local Plan.</p>		
<p>Gloucestershire Airport G2 Option 3 Description: H=33.5 ha, 844 dwellings; E=25.1 ha; new vehicular access from B4063 and Parton Road; new junction from A40 Golden Valley to new strategic employment allocation; retention of main runway function at airport; and employment land allocated on the airport to the North and South</p>	<p>This option is not being taken forward due to the need to retain Gloucestershire Airport as a key regional asset. Operational land is needed to meet the needs of the airport and loss of this land would impact adversely on the function of the Airport.</p>		
<p>Gloucestershire Airport G2 Option 4 Description: H=75 ha, 1889 dwellings; E=75 ha; new vehicular access from B4063, Parton Road and Bamfurlong Lane; new junction from A40 Golden</p>	<p>Not taken forward as Gloucestershire Airport is a key regional asset, and as such, is supported within the JCS. Wholesale redevelopment of the site is not considered an appropriate option.</p>		

<p>Valley to new strategic housing and employment allocation; major mixed use for redevelopment across the whole of the area currently occupied by the airport resulting in the closure of the airport.</p>			
<p>North East Gloucester G3 Option 1 Description: H= 315 dwellings (14.3 ha) with new accesses from distributor roads; Elmbridge Park and Ride Scheme with new junction from A40 Golden Valley; and Safeguarded site for park and Ride Extension</p>	<p>Not being taken forward as it does not deliver sufficient capacity to merit strategic allocation designation.</p>		
<p>North East Gloucester G3 Option 2 Description: H= 315 dwellings (14.3 ha); E= 17.4 ha employment land; new accesses from existing distributor roads; Elmbridge Park and Ride Scheme with new junction from A40 Golden Valley; and Safeguarded site for park and Ride Extension</p>	<p>This option has been combined with G9 to provide a comprehensive approach to development to the south of Churchdown.</p>		
<p>Brockworth G4 Option 1 Description: H=46.5ha, E=13ha; 1172 dwellings; new roundabout from Valiant Way</p>	<p>Through discussion with the Gloucestershire LEP, it was considered that other employment sites more attractive to the market were available. Removing employment allocation offered the opportunity to deliver additional housing numbers in this location.</p>		

<p>Brockworth G4 Option 2 Description: H=61.7ha, 1555 dwellings; new roundabout from Valiant Way</p>	<p>Taken forward due to the need to deliver the objectively assessed housing need in a location that provides positive effects, including biodiversity improvements and good quality highways infrastructure. Draft JCS 2013 Policy A4 – North Brockworth Urban Extension, Gloucester.</p>	<p>A decrease to 1,500 dwellings Submission JCS 2014 Policy A4 North Brockworth</p>	<p>3 ha employment land to be delivered; no change in housing numbers. Reinstatement of site specific requirements provides more certainty of mitigation for effects. Modified JCS Policy A4 North Brockworth</p>
<p>Brookthorpe / Whaddon</p>	<p>Not taken forward because the site is located outside the JCS area.</p>		<p>Reconsidered during examination; unable to bring forward site through the JCS at this stage as it is outside the JCS area and requires agreement with Stroud DC but will be reconsidered again in future plan-making.</p>
<p>Land South of Hunts Grove</p>	<p>Not being taken forward because the site is located outside the JCS area.</p>		<p>Now allocated through the Stroud Local Plan.</p>
<p>Land at Hardwicke</p>	<p>Not taken forward because the site is located outside the JCS area.</p>		<p>As above</p>
<p>Highnam G8 Option 1 Description: 1380 dwellings (54.8 ha); 4.2 ha of employment land; new community centre/ hub with retail and community facilities; new primary school; park and Ride; Improvements to highway infrastructure including to A40 junction serving Highnam.</p>	<p>This option is not being taken forward as it does not fit with the development strategy of the JCS. The strategy is focusing on the urban centres and urban extensions to Gloucester and Cheltenham.</p>		
<p>Highnam G8 Option 2 Description: 265 dwellings (12 ha)</p>	<p>This option is not being taken forward as it does not fit with the development strategy of the JCS. The strategy is focusing on the urban centres and</p>		

	urban extensions to Gloucester and Cheltenham.		
South of Churchdown G9 Option 1 Description: H= 192 dwellings (8.7 ha)	This option is not being pursued as it does not deliver sufficient capacity to merit strategic allocation designation.		
South of Churchdown G9 Option 2 Description: H= 315 dwellings (14.3 ha) with new accesses from distributor roads	This option has been combined with G3 (option 2) to provide a comprehensive approach to development to the south of Churchdown.		
Churchdown G3 & G9 Option 1 Description: H= 434 dwellings (19.7 ha); new accesses from existing distributor roads; Elmbridge Park and Ride Scheme with new junction from A40 Golden Valley; Safeguarded site for park and Ride Extension; and Extra Care Facility if evidence demonstrates need	This option is not being pursued as it does not deliver sufficient capacity to merit strategic allocation designation.		
Churchdown G3 & G9 Option 2 Description: H= 630 dwellings (25 ha) and E=17.4 ha of employment land; Elmbridge Park and Ride Scheme with new junction from A40 Golden Valley; Safeguarded site for park and Ride Extension; Extra Care Facility	These options taken forward because they provide major positive effects, for example highway infrastructure linkages, and provide a good balance of development including residential and employment. Draft JCS 2013 Policy A3 – South Churchdown Urban Extension, Gloucester.	Increase to 868 dwellings; no change in employment land. Submission JCS 2014 Policy A3 South Churchdown	Increase to 1,100 dwellings as increased capacity demonstrated through further studies by developer; no change in employment land. Reinstatement of site specific requirements provides more certainty of mitigation for effects. Modified JCS 2016 Policy A3 South Churchdown

<p>Land to the South of Gloucester G5</p>	<p>Options not progressed due to transport, poor connectivity, and biodiversity issues.</p>	<p>Sites south of Winnycroft Lane/Corncroft Lane included in the district capacity as part of the emerging Gloucester City Plan.</p>	<p>Considered at examination as they conform to the Spatial Strategy & can deliver 620 dwellings on the built-up edge of Gloucester. Therefore, appropriate to include as a strategic allocation in the JCS. Modified JCS 2016 Policy A10 Winnycroft</p>
<p>North Cheltenham C2 Option 1 Description: H=469 dwellings (18.6 ha)</p>	<p>Neither option is being taken forward for North Cheltenham. The inclusion of this site would not be in accordance with the Green Belt assessment methodology. It is also not considered that a new defensible Green Belt boundary can be established.</p>		<p>Reconsidered at examination & suggested potential for small scale development in the area close to urban edge of Cheltenham; however, numbers not consistent with a strategic plan & these smaller sites will be investigated through the emerging Cheltenham Local Plan.</p>
<p>North Cheltenham C2 Option 2 Description: H=759 dwellings (30.1 ha)</p>	<p>Neither option is being taken forward for North Cheltenham. The inclusion of this site would not be in accordance with the Green Belt assessment methodology. It is also not considered that a new defensible Green Belt boundary could be established.</p>		<p>As above</p>
<p>North West Cheltenham C3 Option 1 Description: H = 3074 – 5042 dwellings (139.4 ha); E = 11.6 ha employment land; and MU = 89.25 ha mixed use</p>	<p>Not taken forward due to the difficulty in ensuring that the new development was well integrated into the urban area of Cheltenham. Also the inefficiency of the layout would lead to a less comprehensive use of the site overall.</p>		
<p>North West Cheltenham C3 Option 2</p>	<p>Taken forward because the site performs well in sustainability terms and provides a good balance of development including residential and</p>		<p>Housing requirement reduced to 4,285 dwellings to provide a green buffer for Swindon</p>

<p>Description: H = 4825 dwellings (184.1 ha); E = 23.3 ha employment land; and a safeguarded area.</p>	<p>employment, integrating well with the existing Kingsditch industrial estate. It is a layout which integrates well with the Cheltenham urban area, and allows for future development beyond the plan period provided for by safeguarding. Draft JCS 2013 Policy A5 – North West Cheltenham Urban Extension, Cheltenham.</p>	<p>Submission JCS 2014 Policy A5 North West Cheltenham</p>	<p>village; employment land unchanged.</p> <p>Reinstatement of site specific requirements provides more certainty of mitigation for effects.</p> <p>Modified JCS 2016 Policy A5 North West Cheltenham</p>
<p>West Cheltenham C5 Option 1 Description: E = 36.5 ha of employment land</p>	<p>Not taken forward due to the lack of effective access to the site for significant employment use. Also the need to sufficiently mitigate odour in this location is likely to harm development viability. It is proposed that a new Green Belt boundary is established in this area to safeguard land for future development if future odour mapping and changes to activity at the Hayden Works reduce the development exclusion zone. Draft JCS 2013 as a safeguarded area for future development in Policy S5.</p>		<p>Reconsidered at examination with change from safeguarded land to allocation as an urban extension. Employment-led site with about 45 ha of B-class led employment uses; and 1,100 dwellings.</p> <p>Reinstatement of site specific requirements provides more certainty of mitigation for effects.</p> <p>Modified JCS 2016 Policy A11 West Cheltenham</p>
<p>South Cheltenham C6B Option 1 H = 822 dwellings (37.3 ha)</p>	<p>Option taken forward because it provides a suitable quantum of housing development well related to the existing urban area whilst creating a sound new green belt boundary. Draft JCS 2013 Policy A7 – South Cheltenham – Up Hatherley Urban Extension, Cheltenham.</p>	<p>Deleted as overall numbers of housing reduced & provided an opportunity to reconsider the apportionment between the 3 authorities.</p>	<p>Not identified as a sustainable option through the examination and Interim Report.</p>
<p>South Cheltenham C6B Option 2</p>	<p>Not taken forward as it was considered that other suitable employment locations were available which offered</p>		

H = 422 dwellings (16.75 ha) and employment land (17 ha)	the opportunity to increase housing numbers at this location.		
South Cheltenham C6 Option 1 Description: H = 558 dwellings (25.3 ha) and E = 6.8 ha of employment land	This option is not taken forward owing to the low development quantum of residential development proposed, also this option would not comprehensively use the Leckhampton allocated site within Tewkesbury Borough.		
South Cheltenham C6 Option 2 Description: H = 1101 dwellings (43.7 ha) and E = 6.8 ha of employment land	Not taken forward as it was considered that other suitable employment locations were available which offered the opportunity to increase housing numbers at this location. This option would not comprehensively use the sites available including the existing site allocated within Tewkesbury borough.		
South Cheltenham C6 Option 3 Description: H=1169 dwellings (39.7 ha) and E = 6.8 ha of employment land	Not taken forward because it did not fully take account of the Environment Agency's and the SFRA level 2 view of flood risk in the North Eastern part of the site, and intruded into sensitive Green Belt around Brizen Farm. Considered that other suitable employment locations were available which offered the opportunity to increase housing numbers at this location.		
South Cheltenham C6 Option 4 = Description: H=1075 dwellings (43.62ha)	Option taken forward because it provides a good quantum of housing development without intruding into the Green Belt or AONB. It also preserves important green corridors and reduces flood risk to new development. <i>Draft JCS 2013 Policy A6 – South Cheltenham – Leckhampton Urban Extension, Cheltenham.</i>	<i>Submission JCS 2014 Policy A6 South Cheltenham Leckhampton</i>	Significant reductions in housing numbers arising from concerns at examination with regard to high landscape & visual sensitivity. Removal of 377 dwellings from Tewkesbury side & 547 from Cheltenham side reduces the capacity below that of a JCS strategic site; to be considered

			further within the Cheltenham Local Plan.
Land at Milton	Not taken forward as the site is located outside the JCS area and would rely on agreement from Wychavon District Council. The location does not fit with the JCS spatial strategy. There were also concerns about flood risk.		Reconsidered at examination. Planning Statement prepared with Wychavon District Council for consideration of an early Phase 1 scheme of approximately 500 dwellings at Milton to be brought forward through the planning application process, with Phase 2 to be subject to a future review of the SWDP.
Land at Fiddington T3	Not taken forward as concerns about transport.		Recommended by Inspector as a potential Strategic Allocation for 900 dwellings at examination. However, not taken forward as concern over transport infrastructure issues around the A46 & M5 J9 and future requirements; more appropriate for consideration through future review of the JCS or in the developing Tewkesbury Borough Plan when transport issues are clearer.
MOD T2 Description: Total allocation area = 128.7 ha of which H =2238 dwellings and MU = 80 ha of mixed use land	Option taken forward because it recognises the potential of a brownfield opportunity which will come forward during the plan period and provides a proactive response to what will be a		Reinstatement of site specific requirements provides more certainty of mitigation for effects.

	vacant site plus additional land to the north. <i>Draft JCS 2013 Policy A8 – MOD Site at Ashchurch Strategic Allocation.</i>	<i>Submission JCS 2014 Policy A8 MOD Site at Ashchurch</i>	<i>Modified JCS 2016 Policy A8 MOD Site at Ashchurch</i>
Ashchurch T3 E = 14.3 ha of employment land	Option taken forward because it provides a strategic allocation close to the motorway junction, which aligns with the emerging LEP strategy and offers an opportunity to build and strengthen the existing employment offer in this location. <i>Draft JCS 2013 Policy A9 –Ashchurch Strategic Allocation.</i>	<i>Submission JCS 2014 Policy A9 Ashchurch</i>	Reinstatement of site specific requirements provides more certainty of mitigation for effects. <i>Modified JCS 2016 Policy A9 Ashchurch</i>

Screening Modifications for SA Significance

- 3.12 The proposed Main Modifications were screened for their significance with regard to SA and the reasoning for any refreshed or new appraisal is provided in Appendix B of this SA Addendum Report. The most significant change is the updated economic evidence that results in an adjusted OAHN of 33,500 dwellings. This is further increased by the Inspector's recommendation in her Interim Report (EXAM 232) to include a 5% uplift to assist in delivering much needed affordable homes, give more certainty of delivery, and increase the chances of maintaining the required five-year supply. This makes a total housing requirement of 35,170 dwellings and this represents a significant increase on the submitted housing requirement of about 30,500 new homes over the plan period.
- 3.13 The implications for the SA are with regard to the effects on the implementation of the JCS as a whole with Policies and Strategic Allocations, including cumulative effects. The increased housing allocations have been developed through changes to the Strategic Allocations. Accordingly, the implications for the SA are considered for each Strategic Allocation individually.

Modifications to Strategic Allocations; Additional Strategic Allocations JCS Policy SA1 Strategic Allocations A1-A11

- 3.14 **A1 Innsworth:** The course of the Hatherley Brook with the functional floodplain splits the two elements of the potential strategic site with the Twigworth part to the north and the Innsworth part to the south. This had been considered to be a concern at the JCS Submission stage (Nov 2014) with apparent difficulties for integration and provision of a comprehensive Urban Extension. Overall, the SA had found positive effects with no major negative effects, although some uncertainties were indicated for natural resources and sustainable transport were reported through the SAs of options for A1 & A1a (SASUB 100; SAPR107 & 122); the SA for the Innsworth element was refreshed and the details are provided in Appendix C.
- 3.15 **A1a Twigworth:** This site was reconsidered as a result of the Inspector's Interim Report, through hearing statements and discussions at the examination. Further information and masterplanning was available from the promoters of development for part of this site. The masterplan produced for the 750 dwelling development demonstrates that housing will only be built in Flood Zone 1 thus avoiding risk, and the two site elements will be integrated through green infrastructure proposals for Flood Zones 2 & 3, including footpaths to provide integration as part of a sustainable transport network. The SA for the Twigworth element was refreshed and the details are provided in Appendix C.
- 3.16 The revised Policy **A1 Innsworth/A1a Twigworth** now includes the reinstatement of site-specific development requirements (i-xv) and at least 5 specific infrastructure requirements. These specific requirements remove any uncertainties that had been previously reported by the SA; they demonstrate that mitigation and enhancement measures will be implemented to confirm

positive effects, and avoid significant negative effects, for community facilities & services, green infrastructure & biodiversity; flood risk management; landscape; and sustainable transport. The requirement for traffic access and a new main road junction from the A40 will further mitigate potential negative effects on the transport network. Overall, the findings of the refreshed SA indicate positive effects, mitigation of negative effects, and removal of uncertainty reflecting stronger positive effects for sustainable development.

- 3.17 **A2 North Churchdown:** This strategic allocation has been removed from Policy SA1 and the JCS in consideration of concerns regarding the Green Belt raised during the examination.
- 3.18 **A3 South Churchdown:** Updated evidence has indicated that the housing numbers can be increased from 868 to approximately 1,100 new homes, with employment land unchanged at 17.4 hectares. The revised Policy A3 now includes the reinstatement of 13 site-specific development requirements (i-xiii) and at least 4 specific infrastructure requirements. These specific requirements remove any uncertainties that had been previously reported by the SA; they demonstrate that mitigation and enhancement measures will be implemented to confirm positive effects, and avoid significant negative effects, for community facilities & services, green infrastructure & biodiversity; flood risk management; landscape; and sustainable transport.
- 3.19 The specific requirement for some 50 ha of green infrastructure including enhancement of visual linkages, safeguarding of specific ancient woodland, and habitat creation to complement the Horsebere Flood Management Scheme demonstrates that any negative effects will be mitigated with certainty of implementation; also consideration of the interactions between factors. The specific requirement for respecting landscape character and separation of villages mitigate any concerns and uncertainty of any negative effects.
- 3.20 Key specific requirements for transport that are being investigated include a new access junction from the A40, promotion of travel plans and high quality public transport will help mitigate any negative effects on the transport network from the increased development. Sustainable modes of transport are promoted and require enhancement to national Sustrans route 41. This will further mitigate for potential negative effects from increased development and remove any uncertainties for implementation. Overall, the findings of the refreshed SA indicate positive effects, mitigation of negative effects, and removal of uncertainty reflecting stronger positive effects for sustainable development.
- 3.21 **A4 North Brockworth:** The housing proposed for 1,500 homes has not changed. A 3ha allocation for employment land has been proposed and this will have positive effects for SA objectives on employment/economy. It may contribute to reducing negative effects on SA objectives for transport by facilitating travel to work by sustainable modes but overall, the minor change is not likely to have significant effects on the previous findings of the SA.

- 3.22 **A5 North West Cheltenham:** Concerns were raised at the examination with regard to the number of dwellings proposed and the high landscape/visual impact sensitivity generally to the north west of the strategic allocation. The Inspector recommended that a green buffer should remain around the village of Swindon in consideration of landscape/visual amenity and the settings of heritage features (EXAM 232). This displaces proposed housing and reduces the allocation from 4,785 to 4,285 homes.
- 3.23 The SA had found minor long-term negative effects on SA Objectives for landscape and green space (SASUB 100; SAPR108 & 122). The proposed change to the allocation by reducing the numbers of houses will lessen the negative effects identified and further mitigation is provided through the reinstatement of site-specific development requirements. This includes clear guidance on requirements for layout and form of development that respects landscape character and separation of villages, respects the character and setting of heritage assets, and takes into account indicative Local Green Spaces.
- 3.24 The revised Policy A5 now includes 15 site-specific development requirements (i-xv) and at least 6 specific infrastructure requirements. These specific requirements remove any uncertainties that had been previously reported by the SA; they demonstrate that mitigation and enhancement measures will be implemented to confirm positive effects, and avoid significant negative effects, for community facilities & services, green infrastructure & biodiversity; flood risk management; landscape; heritage, and transport, including guidance on access to the highways network and requirements for sustainable movement. Overall, the findings of the refreshed SA indicate positive effects, mitigation of negative effects, and removal of uncertainty reflecting stronger positive effects for sustainable development.
- 3.25 **A6 South Cheltenham Leckhampton:** Removed from the Plan. Concerns were raised during examination with regard to the very high landscape/visual amenity sensitivity and the likely impacts of traffic generation. The Inspector recommended that this should be removed from the Strategic Allocations but that a modest level of development for about 200 dwellings could be considered towards the north of the area with more accessible public transport and less landscape impacts (EXAM 232). This would be appropriate then for consideration in the emerging Cheltenham Local Plan. The SA had found major negative effects (SASUB 100; SAPR108) with regard to landscape and visual impact. Accordingly, removal of this Strategic Allocation will mitigate negative effects by avoidance.
- 3.26 **A8 MoD Ashchurch:** This Strategic Allocation is now retained to provide housing during the plan period to 2,125 homes; the allocation for employment land remains unchanged at 20 hectares. This is the same as the Submission version of the Plan and is not significant with regard to the SA. However, the reinstatement of site-specific requirements for development will mitigate any potential negative effects arising and help ensure implementation of mitigation measures thus removing uncertainty.

- 3.27 The revised Policy A8 now includes 10 site-specific development requirements (i-x) and at least 4 specific infrastructure requirements. These specific requirements remove any uncertainties that had been previously reported by the SA; they demonstrate that mitigation and enhancement measures will be implemented to confirm positive effects, and avoid significant negative effects, for community facilities & services, green infrastructure & biodiversity (particularly minimising negative effects on Carrant Brook habitats); flood risk management; landscape; heritage, and transport. The modified Policy A8 recognises the specific issues for this allocation with regard to potentially complex remediation. Overall, the findings of the refreshed SA indicate positive effects, mitigation of negative effects, and removal of uncertainty reflecting stronger positive effects for sustainable development.
- 3.28 **A9 Ashchurch:** The Strategic Allocation remains unchanged with 14.3 ha of employment land. The revised Policy A9 now includes 8 site-specific development requirements (i-xiii) with particular consideration of transport needs. These specific requirements remove any uncertainties that had been previously reported by the SA; they demonstrate that mitigation and enhancement measures will be implemented to confirm positive effects, and avoid significant negative effects, particularly for landscape, green infrastructure & biodiversity, flood risk management, and transport. The certainty of implementing requirements to mitigate negative effects on transport and movement will enhance the minor positive effects identified in the previous SA. Overall, the findings of the refreshed SA indicate positive effects, mitigation of negative effects, and removal of uncertainty reflecting stronger positive effects for sustainable development.
- 3.29 **A10 Winnycroft:** Two sites south of Winnycroft Lane/Corncroft Lane were suggested by the Inspector as suitable for strategic allocation when conjoined and likely to deliver around 600 homes. This conforms to the Spatial Strategy and a planning application is already made for up to 420 dwellings on one of the sites. As this is a new proposed strategic site that has not previously been subject to strategic SA, a detailed SA was undertaken and is provided in this SA Addendum Report at Appendix C.
- 3.30 The SA found key positive effects associated with provision of high quality housing, supporting infrastructure, accessibility, and potential for restoration of a priority habitat. Potential negative effects were associated with increased traffic and air quality, loss of greenfield land, and heritage assets and settings. The SA recommended that site-specific development requirements included mitigation for potential negative effects to the historic environment.
- 3.31 Policy A10 includes 12 site-specific development requirements (i-xii) with particular consideration green infrastructure, recreation, flood risk management, form and layout that respects landscape and heritage assets, and transport. These requirements should mitigate negative effects and reduce uncertainties identified in the SA.
- 3.32 **A11 West Cheltenham:** An additional employment-led site was identified by the JCS team and allocation was recommended by the Inspector (EXAM 232). This is a new site with 1,100 dwellings and 45 ha employment, located on

the edge of Cheltenham and conforming to the Spatial Strategy. Earlier considerations of a site to the west of the city had been limited due to the Development Exclusion Zone with odour issues from the Hayden Waste Water Treatment Works (WWTW). However, studies by Severn Trent Water (EXAM 125a, December 2015) have investigated options to resolve the situation and a commitment has been made by the water company to do this at the earliest opportunity to enable development of the land.

- 3.33 The SA found positive effects for most SA objectives, with major positive effects for housing, economy, and restoration/enhancement of biodiversity. Potential negative effects were associated with loss of greenfield/Green Belt, and increased traffic on the transport network. However, these potential effects are mitigated by the 12 site-specific requirements (i-xii) in Policy A11, including transport and sustainable modes, landscape buffer, and a layout that addresses the proximity to the WWTW. The requirements for green infrastructure, including the Hatherley Brook, the Fiddlers Green, and integration of important hedgerows, will provide certainty of implementation of mitigation/enhancement – confirming major positive effects.

Cumulative Effects of Modifications to Strategic Allocations

- 3.34 The proposed changes to the Strategic Allocations have been developed in response to updated evidence and to resolve concerns raised during examination. Although housing numbers over the whole JCS area are increased significantly from 30,500 to 35,170 dwellings with potential cumulative effects, negative effects will be mitigated through the reinstatement and refinement of site-specific development and infrastructure requirements in each of the SA1 Policies (A1-A11). The apportionment of housing for each authority has been adjusted in line with the approach agreed at examination (EXAM 232 paragraphs 52-54) – that strategic allocations should be located where that need arises.
- 3.35 **Gloucester:** A1 has a slight increase in capacity from 1,250 to 1,300 dwellings; A2 is removed from the JCS to resolve concerns about the Green Belt; A3 is increased from 868 to 1,100 dwellings; no changes at A4; new site at A10. Overall, the apportionment to Gloucester has increased from 11,300 to 14,359 dwellings which is significant with regard to SA and particularly cumulative effects from the increased scale of development. However, as explained above (3.5-3.11) for each site, the site-specific development and infrastructure requirements remove uncertainty, providing strong mitigation measures to avoid or ameliorate negative effects – individually and cumulatively. These significant policy modifications and the removal of A2 resolves concerns raised by consultees for Green Belt and mitigates cumulative negative effects on landscape identified through the SA by avoidance. The additional housing and site specific requirements will confirm positive effects on SA objectives, including cumulative effects.
- 3.36 **Cheltenham:** A5 reduced from 4,785 to 4,285; A6 removed; and new site A11. Overall, the apportionment to Cheltenham is increased from 9,100 to 10,917 which is significant with regard to SA and particularly with regard to the likely cumulative effects from the increased scale of development. As with the

increased development at Gloucester, the site-specific requirements in the modified policies remove uncertainty, mitigate negative effects, and confirm positive effects - individually and cumulatively. These significant policy modifications and the removal of A2 resolves concerns raised by consultees and mitigates cumulative negative effects on landscape/visual amenity as identified through the SA by avoidance.

- 3.37 **Tewkesbury:** A8 increased from 2,125 to 2,325 homes & overall estimated at 2,726 homes; A9 no change. Overall, the apportionment to Tewkesbury has decreased slightly from 10,100 to 9,899 and this is not considered significant with regard to cumulative effects and the SA. Nonetheless, the inclusion of site-specific requirements for A8 & 9 will improve the sustainability of the strategic sites in the same way as described above for Gloucester and Cheltenham areas.

SA of Implementing the Main Modifications to the JCS

- 3.38 The SEA Regulations require assessment of the overall implementation of the Plan, taking into account the aims, policies and site allocations. The proposed modifications to SP1, SP2 and SA1 reflect the updated evidence for housing need, concerns raised by consultees and discussed during examination, and the reconsideration of the role of the individual district level plan capacities. The overall increase in development now proposed for the JCS could have cumulative negative effects – particularly with regard to transport and landscape/visual amenity. However, this has been mitigated through the removal and amendment of certain sites, and the inclusion of site-specific development and infrastructure requirements; these will also confirm certain positive effects such as provision of green infrastructure.
- 3.39 Minor amendments of deletions, additions, corrections were made to many of the JCS Policies and these provide clarification and enhance guidance for development. These changes are not significant with regard to the SA. The significant changes to SP1, SP2 & SA1 have been considered and reported above. SD4 Sustainable Design loses the requirement for 10% or more energy from renewable or low carbon sources – in line with changed national policy. This affects the SA with less certainty of mitigation of negative effects on climate change but is unlikely to be significant overall for implementation of the JCS. SD6 removes a small area of Green Belt to better define the Green Belt boundary and allow for a small local plan allocation around Arle Nurseries. This is not considered to be significant with regard to SA and this strategic level JCS plan.
- 3.40 Minor changes to SD7-10 Landscape, Historic & Biodiversity make explicit that new development will not cause unacceptable adverse impacts. This affects the SA and will reinforce and confirm the certainty of mitigation measures for significant negative effects; this strengthens the findings of the SA. INF 1- Transport includes a new specific requirement to consider the implications of cumulative impacts. This will strengthen the SA findings and reduce some uncertainty for mitigation of negative effects with regard to implementation of the JCS as a whole – and for each authority area.

HRA Updated

- 3.41 The HRA was updated to take account of the proposed modifications to the JCS, with particular consideration of the changes to the Strategic Site Allocations. The approach taken was in accordance with available guidance, good practice, and advice from the relevant regulators (Natural England & Natural Resources Wales) and as described in the HRA Report (SAPR114-119) submitted with the JCS. The HRA concluded that the submission JCS would not have adverse effects, alone or in-combination, on the integrity of the identified European sites.
- 3.42 Some concern was expressed by Natural England (NE) regarding potential effects from proposed strategic sites on the Cotswold Beechwoods Special Area of Conservation (SAC). An HRA Addendum Report was produced in May 2015 (SAPR 119a) that concluded that whilst there is a need for further detailed discussions between the Councils and Natural England regarding the management of the SAC and mitigation measures, the policy mechanisms are in place to deliver them. These discussions have continued and culminated in a Statement of Cooperation (SUB108C pages 119-124) between the Councils and Natural England.
- 3.43 The proposed modifications to the JCS that are significant with regard to the HRA process are the two new strategic allocations A10 Winnycroft and A11 West Cheltenham. These were subject to HRA screening and details are provided here in this SA Addendum Report at Appendix C. Strategic Site Allocation A11 is located over 7.5 km from the closest European site (Cotswold Beechwoods SAC) and is unlikely to lead to any significant effects. Strategic Site A10 is located approximately 2.3 km from the Cotswold Beechwoods SAC with the potential for likely significant effects (LSEs) arising from increased traffic on the A46 (air quality) and increased recreational use (disturbance). However, these potential LSEs will be mitigated by the recommendations previously described (SAPR114-119), the development of the Statement of Cooperation with NE, the final wording of JCS Policy SD10 Biodiversity & Geodiversity, and the site specific development requirements including transport mitigation.
- 3.44 The updated HRA concluded that the Proposed Modifications for the JCS will not have adverse effects, alone or in-combination, on the integrity of the identified European sites.

4.0 SUMMARY & NEXT STEPS

- 4.1 Reconsideration of strategic options and Proposed Main Modifications have been made to the GCT JCS as a result of updated evidence, particularly the Objectively Assessed Housing Need, concerns raised from consultation, discussion during the examination, and the Inspector's findings (EXAM 232). Most changes to the JCS are minor, concerned with correcting errors, addressing omissions, and providing more clarity. The main changes are associated with the requirement for the uplift in housing and the implications for the Strategic Allocations.
- 4.2 The SA screened the Proposed Modifications for their significance with regard to the SA process. Full appraisals were undertaken for the new Strategic Allocations A10 & A11. The significant changes proposed for SP1, SP2 and SA1 have been considered with a refreshed SA, including the implications for implementation of the JCS as a whole and for each of the 3 authority areas. The HRA process was also updated with a screening of the 2 new Strategic Allocations A10 & A11; this concluded that the Proposed Modifications for the JCS will not have adverse effects, alone or in-combination, on the integrity of the identified European sites.
- 4.3 Overall, the Proposed Modifications will confirm positive effects previously identified, particularly for housing. The changes will strengthen and confirm implementation of mitigation measures, particularly through the removal of SA1 A2 & A6 and inclusion of site-specific development and infrastructure requirements in SA1 A1-A11. This will improve the overall sustainability of the JCS, including mitigating the negative effects previously identified through the SA, especially with regard to landscape/visual amenity; and transport. It will further confirm mitigation and potential enhancement for effects on biodiversity and green infrastructure.
- 4.4 Thus, this Integrated Appraisal (SA, SEA & HRA) has shown that the JCS Proposed Modifications clearly demonstrate implementation of effective mitigation measures for negative effects and overall, the sustainable development of the JCS has been enhanced through the examination.
- 4.5 The Proposed Modifications to the JCS and this accompanying SA Addendum Report will be placed on public consultation through the JCS website. Representations received will be considered and it is expected that the JCS will then be adopted early in 2017. An SA Adoption Statement will also be published and this will include reporting how the SA has influenced the plan-making process.

Appendix A: Consultation Representations through Hearing Statements & Issues Raised at Examination (Stage 1 May 2015; Stage 2 July 2015)

Note: It should be noted that these responses were as they were made at the time they were written; many of the sites and matters raised have now been superseded.

Matter 6: Spatial Strategy

No. Consultee Matter Number SA Issue Raised	SA Issue Raised	Summary Response with evidence where possible/relevant
8917345 APT Planning for Pye Homes	Q93 Unclear how alternative options were assessed against the results of the SA	Detailed in Appendix VIII (Oct 2013); discussed in paragraphs 7.17-27 (pages 66-68) of SA Report (June 2014).
Boyer on behalf of Bloor Homes & Persimmon Homes	Q84 SA confirms the chronology of developing the strategy for UEs at Gloucester & Cheltenham – summarised at paragraphs 4.10, 7.85-6 of the SA Report.	Noted.

<p>6166561 Gladman Developments Ltd</p>	<p>Q93 At Developing the Preferred Option (Feb 2012) 4 options A-D considered. Suggest an additional scenario incorporating further dispersal in combination with an urban focus (including a number of SUEs) should have been considered as a reasonable alternative. Such a hybrid option would enable a degree of urban concentration but with less requirement for release of Green Belt. SA (May 2014) appraised 3 options A-C (urban focus; rural dispersal; new settlement). It is unclear why no further distribution strategies were not subject to SA.</p>	<p>The SA of the Spatial Strategy options (A urban focus, B rural dispersal, C new settlement) was refreshed in Oct 2013. A further hybrid option with less urban focus & more rural dispersal was not tested through SA at that time since it was not considered to be a reasonable alternative – It would not have met with objectives of the JCS and the development needs at Gloucester, Cheltenham & Tewkesbury Town. However, this was not explicitly explained in the SA Report.</p>
<p>Hunter Page on behalf of Bloor Homes Western</p>	<p>Q90 Too much pressure on existing service villages; could have considered other options such as promoting hubs.</p>	<p>As above</p>
	<p>Q93 SA considered 3 options – urban; rural; new settlement. It should have considered further option that focuses a greater proportion of growth away from urban areas & Green Belt – eg by removing UE at Churchdown & displacing to Tewkesbury or the service villages.</p>	<p>As above. Transferring some 1400 homes to Tewkesbury Town was not considered to be a reasonable alternative at the time since this would not meet the needs of Gloucester nor comply with the strategic objectives. However, this was not explicitly explained in the SA Report.</p>
<p>Hunter Page Planning on behalf of ERLP2 & SMV</p>	<p>Q93 Adopted urban focus shows clear advantages over other 2 options subject to SA & therefore the strategy is sound.</p>	<p>Noted.</p>

Hunter Page Planning on behalf of Brockhampton Lane Consortium	Q93 Adopted urban focus with UEs to Cheltenham & Gloucester is the most sustainable option.	Noted.
Hunter Page Planning on behalf of Redcliff Homes	Q93 Adopted urban focus with UEs to Cheltenham & Gloucester is the most sustainable option.	Noted.
Hunter Page Planning on behalf of MG Property Consultants	Q93 SA considered 3 options – urban; rural; new settlement. It should have considered further option that focuses a greater proportion of growth away from urban areas & Green Belt – eg by removing UE at Churchdown & displacing to Tewkesbury or the service villages.	As above
Hunter Page Planning on behalf of Spitfire Properties LLP	Q93 considered 3 options – urban; rural; new settlement. Appears to be no consideration of a further option that focuses a greater proportion of growth away from urban areas & Green Belt – eg by removing UE at Churchdown & displacing to Tewkesbury or the service villages. Evidence suggested to support increased jobs and realignment of housing numbers to Tewkesbury Borough.	As above
Ken Pollock	Q93 No evidence of careful sustainability reasoning <u>before</u> the UE strategy was focused into Green Belt.	As above and explained in Section 5, 6 & 7 of the SA Report.

9138817 Origin3 on behalf of Taylor Wimpey (Bristol)	Alternative option not on Green Belt & adjacent to SE Gloucester (where there is need) – site at Whaddon (in Stroud District).	Details of SA in Appendix VIII(a) Oct 2013 for potential site allocations and non-JCS sites for Gloucester; reasons for selection/rejection provided in Table 7.2 SA Report (June 2014).
3150814 Pegasus on behalf of Robert Hitchins Ltd	Q93 The strategy proposed is supported.	Noted.
9106017 RPS for Barratt Homes West	Q93 Comfortable that the councils have tested reasonable strategic alternatives for the JCS area – but not with regard to options for Tewkesbury Town. Land at Mitton (broad location T1a) has sustainable credentials.	Details of SA in Appendix VIII(c) Oct 2013 for potential site allocations and non-JCS sites for Tewkesbury; reasons for selection/rejection provided in Table 7.2 SA Report (June 2014).
RPS for Bovis Homes & Miller Homes	Q94 The distribution strategy can support further increases in housing provision without significant adverse impacts. SA tested 4 scenarios & scenario C performed the best in overall sustainability (para 6.20) – this at 36,850 is significantly higher than the 31,040 proposed.	Noted.
Sworders on behalf of HA Day & son	Q84 insufficient justification “infrastructure & sustainability factors” for discounting the greater dispersal of development as a reasonable alternative.	Paragraphs 7.23-24 in SA Report (June 2014) provide clarification and further explanation of effects predicted and reasons for non-progression of the rural dispersal option.

Matter 8: Strategic Allocations

No. Consultee Matter Number SA Issue Raised	Summary Response with evidence where possible/relevant
A3 SOUTH CHUCHDOWN	
<p>3150814 Pegasus on behalf of Robert Hitchins Ltd</p> <p>The SA does not appraise sites equally & if a revised assessment was to be undertaken, the Innsworth option (including Twigworth) would be appraised even more favourably than the South Churchdown site (regardless of the Green Belt issue).</p>	<p>The SAs reported in 2013 & 2014 reflect the iterative & ongoing processes of plan-making & appraisal that progressed from consideration of broad locational searches (to avoid major significant constraints/negative effects; to maximise potential opportunities) to more detailed testing with development quanta. The approach is explained in sections 4-6 and summarised in paragraphs 7.28-29 of the SA Report (June 2014).</p> <p>The SA appraised 8 potential strategic allocations – variously of 1-4 reasonable options each. Two options were considered for Innsworth & four options considered for Churchdown. Details are reported in Appendix VIII (a) of the SA Reports (2013 & 2014). Summary findings of the SA of options for Gloucester are discussed in paragraphs 7.30-7.55; reasons for selection/rejection of potential site allocations are provided in Table 7.2 (pages 81-83 for Gloucester).</p> <p>It is inappropriate to apply any weightings or addition to SA of effects – each sustainability factor is tested against its own standards and the overall SA framework includes both qualitative and quantitative assessments. The findings of the SA need to be considered as a whole.</p> <p>It should also be noted that, whilst the SA informs plan-making, it is not the only factor in decision-making. A direct comparison between the SA findings for 2 options/potential site allocations around Gloucester is not really applicable.</p>

	<p>The proposed site allocations have developed from broad locational searches through options for site allocations – and taking into account the whole JCS area and the development needs in accordance with the Spatial Strategy. Each site option was subject to SA and the findings informed decision-making.</p>
<p>Para 157.5 The Oct 2014 SA assessed sites on the basis of the draft JCS with individual policies for each strategic allocation A1-9.</p> <p>These policies have now been deleted and the infrastructure previously required is no longer specifically referenced – detailed specific matters are to be considered at the next level of plan-making.</p>	<p>Agreed - the SA in 2013 tested strategic site options with draft individual policies A1-A9, including specific site requirements that provided mitigation for certain effects. This is reported in section 7 of the SA Report (June 2014).</p> <p>The changes to plan-making for the Pre-Submission JCS, including the change from A1-9 to SA1 with all the strategic allocations into one policy without site specific requirements, are discussed in section 8 of SA Report (June 2014). These JCS changes were subject to screening for significance with regard to the SA and the findings are presented in table 8.1 (page 126 for SA1).</p> <p>Site specific mitigation was removed as it duplicates the requirements of and mitigation provided by other JCS policies, for example, SD5 Design, SD9 Historic, SD10 Biodiversity, INF3 Flood Risk Management, and INF4 Green Infrastructure. The SA found that these changes from A1-9 to SA1 were not significant (with regard to the SEA Regulations) since mitigation for potential negative effects is provided by other SD and INF Policies. The findings of the Oct 2013 SA remain valid. The updated SA findings are reported in paragraphs 8.8-8.19 of the June 2014 SA Report; paragraph 8.20 summarises the influence of the SA on the preparation of the Pre-Submission JCS from the Draft JCS.</p>
<p>Para 157.6-7 Comparison of SA for Innsworth G1 (option 2) vs Churchdown G3/G9 (option 2)</p>	<p>The development of the potential site allocations has considered all the options for the JCS and not just Innsworth (option 2) vs Churchdown (option 2) – a direct comparison between the SA findings for 2</p>

<p>G1 (2) assessed more positively for 3 SA objectives, less for 2 – therefore, Twigworth/Innsworth more sustainable than South Churchdown.</p>	<p>options/potential site allocations around Gloucester is not really applicable.</p> <p>Not clear which SA Objectives are being referenced. G1 (2) was found to have minor negative effects for SA Objective No 6 Resources Quantity whilst G3/G9 (2) for this SA Objective was partly minor negative with partly major positive effects. This difference is associated with the larger amount of land being set aside for landscape/GI purposes (compared to G3/9 (1)); minor negative effects for both options relate to loss of agricultural land Grade 3.</p> <p>It is inappropriate to apply weighting or addition to SA findings; each factor is assessed according to its own standards & baseline sensitivity – and the SA needs to be considered as a whole to inform decision-making.</p>
<p>Para 157.8 Pages 14 & 150 of SAPR107 Appendix VIIIa – South Churchdown option is assessed as major positive effect on flooding. The Innsworth option (including Twigworth) is assessed as having major positive/uncertain effects. The justification text for these appraisals is identical for both sites but the scoring is different and does not therefore justify different assessments.</p>	<p>The SA text for G1 (2) explains that there is some uncertainty of positive effects when comparing G1 (1 – 1404 dwellings) and G1 (2 – 3075 dwellings) due to the higher quantum of development and relative demands on flood capacities.</p> <p>This uncertainty was removed as development management Policies (especially INF3 flood risk management) were further developed and is reported in Table 7.3 of the SA Report (June 2014) with both A1 and A3 showing potential major positive effects with regard to SA Objective No 4 Flooding.</p>
<p>Para 157.9 The South Churchdown option is assessed as having major positive/minor negative effects on Natural Environment Resources. The Innsworth (including</p>	<p>We assume this refers to SA Objective No 6 Natural Environment & Resources: Use (soils/land – greenfield/pdl; water use). As explained above, the minor negative effects relate to the loss of agricultural land Grade 3 & it is agreed that the major positive effects relate to the</p>

<p>Twigworth) option is assessed as having a minor negative effects. The justification for the South Churchdown appraisal explicitly relies on the policy wording which has been deleted from the Draft JCS, namely the provision of a new strategic buffer to be provided along the northern side of the A40 Golden Valley. Although the green infrastructure is shown on the indicative site layout 3, this is for guidance and not part of the policy. The detailed site specific appraisals therefore appear out of date.</p>	<p>greater area of land set aside for landscape/green infrastructure (compared to G3/G9 (1) and G9 1 & 2).</p> <p>It is agreed that the changes from A1-9 to SA1 in the JCS removed the site specific requirements, including the green infrastructure. The SA screened these changes and found that the mitigation was still provided through other Policies such that the potential major effects indicated for South Churchdown A3 was still valid and as reported in Table 7.3 of the SA Report (June 2014).</p>
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Appendix B: SA Screening of Proposed Main Modifications for SA Significance

Note: Most Policies and Strategic Allocations include changes to provide clarification and correction of any errors; these are not reported here as they are not significant with regard to SA.

Policy Number & Description	Summary of Changes, Deletions and Additions	Screening - do the changes, deletions and additions significantly affect the findings of the GCT JCS SA Report (May 2014) accompanying JCS Submission and/or do they give rise to significant environmental effects?
<p>SP1: Scale of New Development</p>	<p>Housing and employment provision has changed based on updated economic evidence¹ to give an adjusted OAHN of 33,500 dwellings (2014 – 30,500, 2013 – 33,200) for the JCS area for the Plan period (2011-2031) to accommodate the proposed 39,500 jobs target.</p> <p>With a 5 % uplift to 35,175 as recommended by the Inspector, the housing requirement for each authority has changed to numbers at least (2014 & 2013 figures in brackets):</p> <p>Cheltenham 10,917 (9,100, 10,000) Gloucester 14,359 (11,300, 13,100) Tewkesbury 9,899 (10,100, 10,100)</p>	<p>The increase from 30,500 to 35,175 dwellings is significant with regard to the 2013 SA and its updating in 2014 – and therefore requires refreshed SA. Please note that Appendix XII (SA May 2014) details the refreshed SA of 3 housing scenarios (33,200, 30,900, 30,500). Findings included uncertainties and no significant differences between scenarios. Further explanation with regard to strategic options tested is provided by EXAM 66 (June 2015).</p> <p>The effects of this increase in housing numbers is manifested through the amendments to each of the Strategic Allocations (Policy SA1) – so the updating of the Sustainability Appraisal reflects cumulative effects for the whole JCS area and is summarised in section 3 of the SA Addendum Report; details for each Strategic Allocation where necessary is detailed in Appendix C.</p> <p>Changes to employment land will be assessed through the updating of the relevant SAs of Strategic Allocations for SA1.</p>

¹ EXAM 164

	The employment provision was increased from 28,000 to approximately 39,500 new jobs and provision of a minimum of 192 hectares of B-class employment land.	
SP2: Distribution of New Development	Changes to reflect the above overall increases in housing and employment identified through updated evidence and discussion at examination.	Changes are significant with regard to cumulative effects for each authority and the overall cumulative effects of implementing the JCS – but as above, any significant effects arise through the changes to Strategic Allocations. Gloucester and Tewkesbury are likely to have a shortfall, and maybe also Cheltenham. Summarised in section 3 of the SA Addendum Report; details for each Strategic Allocation where necessary are detailed in Appendix C.
SD2: Employment	Minor clarification and updating.	Not significant with regard to SA.
SD3: Retail & City/Town Centres	Clarification & to reflect changes in retail; revised definitions of city/town centres.	Not significant with regard to SA.
SD4: Sustainable Design & Construction	Changes to reflect changed national policy regarding securing 10% or more of energy from renewable or low carbon sources.	This affects the SA with less certainty of mitigation of negative effects on climate change – but unlikely to be significant overall for the implementation of the JCS as a whole.
SD5: Design	No Changes.	N/A
SD6: Green Belt	Minor clarification and updating; removal of small area of Green Belt to better define the Green Belt boundary and allow for a small local plan allocation around Arle Nurseries.	Not significant with regard to strategic SA and the JCS.
SD7-10: Landscape, Historic & Biodiversity	Clarifications & minor changes to make explicit that new development will not cause unacceptable adverse impacts.	Change will reinforce and confirm the certainty of mitigation measures for significant negative effects.
SD13	Clarification & changes to align with changes to national policy.	Not significant with regard to SA.

Affordable Housing																
INF 1 Transport Network	INF 1 & 2 integrated; clarification. Inclusion of requirement to consider "cumulative impacts".	The new specific requirement to consider the implications of cumulative impacts will strengthen the SA findings and reduce some uncertainty for mitigation of negative effects with regard to implementation of the JCS as a whole – and for each authority area.														
INF3 Flood Risk	Minor clarification and updating.	Not significant with regard to SA.														
INF4 Green Infrastructure	Minor addition for specifying the R Severn area as a potential Regional Park.	Not significant with regard to SA.														
INF5 Social & Community Infrastructure	Minor addition to justification text.	Not significant with regard to SA.														
INF6 Energy	Minor updating to reflect Government policy.	Not significant with regard to SA.														
INF6 & 7 Delivery & Contributions	Minor updating and clarification.	Not significant with regard to SA.														
SA1: Strategic Allocations Policy	<p>Changes to the Strategic Allocations, including removal of two – A2 North Churchdown & A6 Leckhampton – and inclusion of two new sites – A10 Winnycroft & A11 West Cheltenham. Housing Changes:</p> <table border="1"> <tr> <td>A1 Innsworth</td> <td>1250 to 1300</td> </tr> <tr> <td>A1a Twigworth</td> <td>1600</td> </tr> <tr> <td>A2 North Churchdown</td> <td>532</td> </tr> <tr> <td>A4 North Brockworth</td> <td>1500</td> </tr> <tr> <td>A5 NW Cheltenham</td> <td>4785 to 4285</td> </tr> <tr> <td>A6 Leckhampton</td> <td>1124</td> </tr> <tr> <td>A8 MoD at Ashchurch</td> <td>5</td> </tr> </table>	A1 Innsworth	1250 to 1300	A1a Twigworth	1600	A2 North Churchdown	532	A4 North Brockworth	1500	A5 NW Cheltenham	4785 to 4285	A6 Leckhampton	1124	A8 MoD at Ashchurch	5	Significant with regard to SA. Changes are significant with regard to cumulative effects for each authority and the overall cumulative effects of implementing the JCS – but as above, effects arise through the changes to the Strategic Allocations.
A1 Innsworth	1250 to 1300															
A1a Twigworth	1600															
A2 North Churchdown	532															
A4 North Brockworth	1500															
A5 NW Cheltenham	4785 to 4285															
A6 Leckhampton	1124															
A8 MoD at Ashchurch	5															

	<table border="1"> <tr> <td>A9 Ashchurch</td> <td>N/A</td> </tr> <tr> <td>A10 Winneycroft</td> <td>620</td> </tr> <tr> <td>A11 West Cheltenham</td> <td>1100</td> </tr> </table>	A9 Ashchurch	N/A	A10 Winneycroft	620	A11 West Cheltenham	1100	<p>Reinstatement of site specific requirements for each Strategic Allocation to provide further detailed guidance on development; also each site policy sets out key principles & infrastructure requirements.</p> <p>New clause 4 in policy that requires sites to provide appropriate scale and mix of uses...that support and complement the role of existing settlements and communities.</p> <p>Removal of clause concerning provision of new Gypsy, Traveller & Travelling Showpeople sites to align with changed Government policy.</p> <p>Changes to individual Strategic Allocations are summarised below:</p> <p>This reinstatement of site specific requirements, & inclusion of principles and infrastructure requirements, is significant with regard to the SA as this makes mitigation possibilities and commitments more certain of implementation, thus removing uncertainty of mitigation for likely negative effects.</p> <p>Explicit requirement for supporting and complementing existing settlements and communities will make more certain the positive effects previously assessed.</p> <p>Policy SD14 sets criteria for proposals.</p>
A9 Ashchurch	N/A							
A10 Winneycroft	620							
A11 West Cheltenham	1100							
Gloucester								
A1 – Innsworth & A1a Twigworth	<p>Increase in housing from 1,250 to 1,300. Reinstatement of the Twigworth part of the site (1350 dwellings) to the allocation, comprising an increase from some 1250 to approximately 2,650 new homes.(i-xv)</p>	<p>Appendix XI (SA May 2014) included a fresh detailed appraisal addressing the removal of the Twigworth part of the site. With updated evidence from the developer(s) and informed by the discussions at the examination (reported in EXAM 232), the SA is refreshed separately for the Twigworth part and the Innsworth part with the detailed findings presented in Appendix C. Implications for</p>						

	No change in 9.1 ha employment land. Site-specific requirements plus infrastructure requirements.	the SA as a whole and each authority area reported in section 3 of the SA Addendum Report.
A2 North Churchdown	Removed.	Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.
A3 South Churchdown	Increase in housing from 868 to 1,100 new homes and new provision for 17.4 ha of employment land. Site-specific requirements (i-xiii) plus at least 4 infrastructure requirements.	Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.
A4 North Brockworth	No change – retained at 1,500 new homes. New provision for 3 ha of employment land. Site-specific requirements (i-xiii) plus at least 5 infrastructure requirements.	Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.
A10 Winnycroft	Two Sites south of Winnycroft Lane & Corncroft Lane with S106s agreements being negotiated for the larger site by Gloucester City Council.	Additional sites as proposed urban extension not progressed in draft & submission JCS – therefore significant with regard to SA and subject to a full SA, details provided in Appendix C of this SA Addendum Report.
Cheltenham		
A5 NW Cheltenham Urban Extension	Housing provision reduced from 4, 785 to 4,285; employment land not changed, remaining at 23.4 ha. Site-specific requirements (i-xv) plus at least 6 infrastructure requirements.	Significant. Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.
A6 – South Cheltenham Leckhampton	Removed. Reduction of 377 dwellings from Tewkesbury side & Cheltenham side	Significant. Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.

	from 747 to 200 dwellings resulted in an overall potential housing allocation that is too small for a strategic site and more appropriately considered within the emerging Cheltenham Local Plan.	
[A7: South Cheltenham-Up Hatherley]	Not taken forward for Submission. No change.	N/A. No change.
A11 West Cheltenham	Employment-led site – approximately 45 ha and approximately 1,100 dwellings. Site-specific requirements (i-xii); No specific infrastructure requirements.	C5 Option 1 subject to SA (Oct 2013). Significant change & subject to full SA with the detailed findings presented in Appendix C. Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.
Tewkesbury		
A8 MoD Site at Ashchurch	Increase in housing from 2,125 to 2,726 new homes; No change in 20 ha employment land. Site-specific requirements (i-x) plus 4 infrastructure requirements.	Significant. The SA is refreshed and Implications for the SA as a whole and each authority area reported in section 3 of the SA Addendum Report.
A9 Ashchurch	14.3 employment. No change to scale/ type of development.	No change.
Land at Mitton	Policy SP2 explains that 500 houses will be committed in an early phase and count towards the identified need for the JCS and to contribute towards accommodating growth in Tewkesbury.	The Mitton site is not listed as a Main Modification in the JCS PMMs as it is not in the JCS area and thus cannot actually be allocated as such in the Plan. However, as this is a significant change to the JCS, the SA has been refreshed & subject to full SA with the detailed findings presented in Appendix C. Implications for the SA as a whole and each authority area considered in section 3 of the SA Addendum Report.

Appendix C: Detailed SA of Modified Strategic Allocations; Other Strategic Options Considered; HRA Screening

Contents:

Fiddington
 Innsworth
 Mitton
 Twigworth
 West of Cheltenham
 Winnycroft Lane/Corncroft Lane

Categories of Significance		
Symbol	Meaning	Sustainability Effect
x	Absolute constraints	Absolute sustainability constraints to development, for example, internationally protected biodiversity
--	Major Negative	Problematical and improbable because of known sustainability issues; mitigation likely to be difficult and/or expensive
-	Minor negative	Potential sustainability issues: mitigation and/or negotiation possible
+	Minor positive	No sustainability constraints and development acceptable
++	Major Positive	Development encouraged as would resolve existing sustainability problem
?	Uncertain	Uncertain or Unknown Effects
0	Neutral	Neutral effect
-	+	The SA Objectives 5, 6, 9, 13 and 14 consider more than one topic and as a result the plan could have different effects upon each topic considered. For example, Objective 6 includes a number of topics including soils, previously developed land, water use and Green Belt. A site/ policy within the plan could have a negative effect on the topic Green Belt but also have a positive effect on previously developed land and therefore this could lead to two symbols being shown.

Potential Strategic Allocation: Fiddington			
Sustainability Objective		Assessment of Effect	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years) / long term (10-20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 900 dwellings (and a school and local centre)	
		Initial SA Summary Report (2011) Ref: Broad Location T3	
1	BIODIVERSITY Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats	There are no international, or national nature conservation designations on or adjacent to the allocation site which could be directly affected ¹ . The site is predominantly arable and characterised by fields surrounded by hedgerows, with opportunities to enhance biodiversity. There are small areas of Deciduous Woodland BAP Priority Habitat in the south of the site. Development has the potential to restore and enhance the BAP priority habitats, and improve community access to this area, in line with Policy SD10, with the potential for major positive effects. Protected species should be safeguarded in line with Policy SD10.	++
2	CLIMATE CHANGE MITIGATION Reduce contribution to climate change and support households and businesses in reducing their carbon footprint	There is the potential to reduce contribution to climate change on the site through compliance with Policy SD4 which requires increased energy efficiencies. This is likely to lead to minor positive effects on climate change mitigation. The positive effects depend upon implementation of other policies including; SD4 on sustainable design, SD5 advising design requirements, and policies which seek to encourage a modal shift, including Policy SD5.	+
3	CLIMATE CHANGE ADAPTATION Adapt to the consequences of climate change	In accordance with Policy SD4 all development will be expected to be adaptable to climate change in respect of the design, layout, siting, orientation and function of buildings and external spaces. Therefore, the effects on climate change adaptation are expected to be minor positive. [It should be noted that flooding is considered separately under SA Objective 4.]	+
4	FLOODING		0

¹ Defra Magic Map Application. Online at <http://magic.defra.gov.uk>

	Manage and reduce flood risk and surface water run-off	The northern boundary of the site is located within an area of flood risk (zones 2 and 3) and this area is also at risk of surface water flooding ² . It is considered that development on site could easily avoid these areas, and the Position Statement for the site identifies that preliminary assessment concludes that there is no significant flooding or drainage issues. Policy INF3 requires new development to incorporate suitable Sustainable Drainage Systems to manage surface water drainage, which should mitigate any potential negative effects. Potential for a residual neutral effect.		
5	NATURAL ENVIRONMENT AND RESOURCES: QUALITY Protect and improve the quality of natural resources including soil, water and landscape	The site option is not located within or adjacent to any landscape designations and the previously the Position Statement identifies that site as of low landscape value. There is the potential for minor positive effects on landscape character through habitat restoration (as identified against the topic of biodiversity) and positive contributions to Green Infrastructure in line with Policy INF4. The site option partially overlies a minor aquifer of intermediate and high vulnerability ³ . Development could have minor negative effects on groundwater quality from contaminated run-off particularly during construction.	+	-
6	NATURAL ENVIRONMENT AND RESOURCES: USE Minimise the use of natural resources including soil, water and Greenfield land through good design	The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. Mitigation for potential negative effects arising is provided through Policy SD4. The site option is not located within the Green Belt, however, it is predominantly greenfield land. Development at the site option could result in the loss of Grade 3b agricultural land with the potential for minor long-term negative effects on the use of natural resources through the loss of agricultural land.		-
7	HISTORIC ENVIRONMENT Protect and enhance the area's distinctive historic environment	There are no designated heritage assets within or immediately adjacent to the site, and development is unlikely to affect any heritage settings. Policy SD9 provides mitigation for the historic environment and seeks to conserve heritage in a manner appropriate to its significance. Development is unlikely to lead to any significant effects, with the potential for a neutral effect.		0

² Environment Agency (2016) Flood Maps - Risk of Flooding from Rivers and Sea, and Risk of Flooding from Surface Water [online] <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

³ Environment Agency (2016) Drinking Water Safeguard Zones and Groundwater Maps [online] <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

8	SUSTAINABLE TRANSPORT Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by private car	<p>Previous SA work identifies that the site is well located in relation to Ashchurch and Tewkesbury, and a new local centre will support access to services and facilities. The Position Statement identifies that there are also opportunities to improve public transport with the potential for minor long term positive effects.</p> <p>Given the size of the allocation it is likely there could be both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. Mitigation may be required (and is available) to reduce potential negative effects. Mitigation is also provided through policies SD5 and INF7 which seek to reduce the potential negative effects of increases in traffic, improve accessibility and reduce the need to travel. Overall it is considered that there is the potential for a residual minor negative effect with an element of uncertainty at this stage.</p>	<table border="1"> <tr> <td style="background-color: #92d050;">+</td> <td style="background-color: #ffff00;">- ?</td> </tr> </table>	+	- ?
+	- ?				
9	WASTE AND POLLUTION Minimise pollution and waste to landfill	<p>There are no historic landfill or pollution / waste related facilities or incidents within close vicinity of the site option. Given the scale of development proposed, there are likely to be negative effects as a result of increased waste production, both in the short-term during construction and residential waste in the longer term. Mitigation provided through Policy SD4 should ensure that development will not lead to any significant negative effects, particularly through the requirement for a waste minimisation statement in large development proposals.</p> <p>The site is not located within an AQMA, however, it is likely that there could be both short-term (during construction) and long-term negative effects on air quality through increased traffic as a result of development. Mitigation for potential increases in traffic is noted above in the topic of sustainable transport.</p> <p>Overall it is considered that there is the potential for residual minor long-term negative effects on waste and pollution as a result of development at the site option.</p>	<table border="1"> <tr> <td style="background-color: #ffff00;">-</td> </tr> </table>	-	
-					
10	THE ECONOMY	The site option is proposed for housing development and as such is unlikely to lead to any significant long term effects on the economy. Potential for a neutral effect.	<table border="1"> <tr> <td style="background-color: #0070c0; color: white; text-align: center;">0</td> </tr> </table>	0	
0					

	Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses		
11	CITY AND TOWN CENTRES Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations	Previous SA work identifies that the site is well located in relation to Ashchurch and Tewkesbury, and is expected to support the vitality and viability of both Ashchurch's and Tewkesbury's town centres with the potential for major long term positive effects.	++
12	SUSTAINABLE COMMUNITIES: EQUALITY Reduce inequalities in wellbeing and opportunity	The allocation could provide a chance to reduce inequalities in wellbeing and opportunity through providing housing and employment opportunities and an improved transport network to create better access to services and facilities for all. At present, the effects are considered to be uncertain and may depend on negotiations at the development management level.	?
13	SUSTAINABLE COMMUNITIES: SAFETY Reduce crime and the fear of crime	The allocation could provide an opportunity to reduce crime as new housing could provide high quality and safe homes. Mitigation provided through Policy SD5 should ensure that there will be no significant negative effects, potential for a residual neutral effect with an element of uncertainty at this stage.	0 ?
14	HEALTH Improve access to health facilities and promote healthy lifestyles	The allocation provides the opportunity for the creation of new high quality homes, which will have minor indirect positive effects on health. Furthermore, Policies INF5 and INF7 seek the appropriate provision or accessibility to open space, which may lead to positive effects on health, with the potential for major long-term effects if implemented successfully. This will depend in part on ensuring that Green Infrastructure provided as a result of development includes provisions for long term management.	+

15	HOUSING Ensure everyone has access to a decent home that they can afford and meets their needs	The site option is likely to lead to major long term positive effects on housing through the provision of 900 new high quality homes.	++
16	GREEN SPACE Create, enhance, protect, connect and improve access to open spaces	The site option is greenfield arable land and development will ultimately remove this green space constituting a long term minor negative effect on green space. However, development at this large site is likely to deliver new green space, or provide significant contributions to enhancing existing green space, which could result in higher quality open spaces with the potential for minor long term positive effects.	+
17	EDUCATION AND SKILLS Improve access to education and life-long learning and enhance skills	The site option does not propose educational / training facilities and as such is unlikely to lead to any significant effects against this SA Objective. The effects remain uncertain at this stage but are likely to be neutral.	0 ?
18	CULTURE AND TOURISM Protect and enhance cultural heritage and promote tourism	Given the nature of the site option, as housing and employment development, effects on this SA Objective are considered to be neutral.	0

Summary of Key Negative and Positive Effects for Sustainable Development:

The site option is located on a parcel of land to the south east of Tewkesbury, in between the existing urban area to the north, the M5 motorway to the west and open land to the south and east. The site option would support the SA Objectives of Biodiversity; Climate Change - Mitigation; Climate Change- Adaptation; Natural Environment and Resources - Quality; Sustainable Transport; City and Town Centres; Health; Housing and Green Space. There is the potential for minor negative effects on the SA Objective of Natural Environment and Resources - Use; Natural Environment and Resources - Quality; Sustainable Transport; and Waste and Pollution as a result of the large scale of development proposed.

Key Negative Effects:

- Development will result in the loss of greenfield and Grade 3b agricultural land

- Development is likely to increase traffic on the highways network, and indirectly negatively affect air quality

Key Positive Effects:

- The provision of new, high quality housing and supporting infrastructure (including new green space) which is resilient to the effects of climate change
- Delivery of development within an accessible location, with the potential to extend existing public transport routes
- Potential for restoration of a BAP Priority Habitat

Strategic Allocation: A1 Innsworth			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha, 1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities	
1	BIODIVERSITY Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats	<p>There are no internationally protected habitats⁴ on or adjacent to the site although there is one nationally protected area Innsworth Meadow – as a SSSI and Priority BAP⁵ Habitat for lowland meadow (condition - recovering favourable). Therefore, no significant negative effects on protected biodiversity. There is some 40-50% overlap by area with this meadowland in the NW corner of the proposed housing with potential negative effects but also potential positive effects if the meadowland could be improved as part of the masterplanning.</p> <p>There are no LNRs in the area (see SA Objective No 16 Green Space). A strong area of GI following the valleys of the Hatherley Brook is indicated on the proposals map. There are possibilities for very positive effects by enhancing the protected lowland meadow with improved connectivity to a wider managed floodplain habitat –both in the short and longer terms. Potential for new GI along the Hatherley Brook to be actively managed for biodiversity purposes in line with Policy INF4 will have major positive effects.</p> <p>The implementation and effectiveness of mitigation measures and potential enhancement is more certain with the reinstatement of site specific requirements in Policy SA 1 (and other Core Policies together with clear planning briefs and masterplanning), including new GI.</p>	++

⁴ Defra (2014) Magic – Statutory Rural Designations - <http://magic.defra.gov.uk>

⁵ Gloucestershire County Council Biodiversity Delivery Plan - <http://www.gloucestershirebap.org.uk>

Strategic Allocation: A1 Innsworth			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
	Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40		
	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha,1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities		
		The presence of protected species is unknown at this stage and there could be potential for the allocation to directly destroy habitat or indirectly cause pollution/ disturbance. Mitigation is provided in the wording of SD10 & site specific requirements in SA1.	
2	CLIMATE CHANGE MITIGATION	There is potential to reduce contribution to climate change on the site through compliance with Policies SD4, SD5 and INF4. This is likely to lead to minor positive effects in the long-term on climate change mitigation.	+
	Reduce contribution to climate change and support households and businesses in reducing their carbon footprint	The effects also depend upon implementation and details of other policies. Overall, the urban extension approach will better promote possibilities for delivery of climate change mitigation.	
3	CLIMATE CHANGE ADAPTATION	The requirements reducing flood risk under Policy INF3 will contribute to positive effects for climate change adaptation (and see SA Objective No. 4 Flooding following).	+
	Adapt to the consequences of climate change	The scale of urban extension developments offers more possibilities for delivery of resilience and SUDS. Climate change adaptation measures are required by Policy SD4 and as a result, the effects on climate change adaptation are expected to be minor positive.	
4	FLOODING		++

Strategic Allocation: A1 Innsworth			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
	Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40		
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Manage and reduce flood risk and surface water run-off	The Hatherley Brook is subject to flooding (Zone 2 and 3) ⁶ . The strategic site allocation proposes development outside the flood zones and GI in the flood zones thus reducing flood risk. The requirement for flood storage betterment across the site as recommended in SFRA2 ⁷ to improve the capacity of the floodplain upstream of Longford will have wider positive effects for flood risk management.		
	Policy INF3 and this will have positive effects in short to long-term.		
5	NATURAL ENVIRONMENT AND RESOURCES: QUALITY	The site lies within a drinking water protected area which is identified as being 'probably at risk' and lies on a minor aquifer which is considered to be of high vulnerability. ⁸ Development could have minor negative effects on groundwater quality from contaminated run-off particularly during construction. Further mitigation to protect water quality at the development management level in line with that provided by Policies INF3, SD15 and SD4 may be required.	O
	Protect and improve the quality of natural resources including soil, water and landscape		

⁶ Environment Agency (2014) Flood Maps. Online at (maps.environment-agency.gov.uk)

⁷ Halcrow Group Ltd (July 2012) Gloucester, Cheltenham & Tewkesbury Joint Core Strategy. Strategic Flood Risk Assessment for Local Development Framework Level 2. Online at <http://www.gct-jcs.org/EvidenceBase/StrategicFloodRiskAssessment.aspx> [Accessed March 2014]

⁸ Environment Agency (2014) Flood Maps – Risk of Flooding from Rivers and Sea. Online at (maps.environment-agency.gov.uk)

Strategic Allocation: A1 Innsworth			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
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		The area is not in or adjacent to any landscape designations and is described as suburban ⁹ and being in an area of medium - low sensitivity landscape ¹⁰ . Therefore, the effects of the development are unlikely to be significant and the landscape could be replaced or substituted – or improved. The implementation and effectiveness of mitigation measures and potential enhancement is more certain with the reinstatement of site specific requirements in Policy SA 1 (and other Core Policies together with clear planning briefs and masterplanning), including requirements for layout that respects landscape character & separation of Longford, integrates important hedgerows, and reduces the impact of electricity pylons & high voltage lines.	
6	NATURAL ENVIRONMENT AND RESOURCES: USE	There will be loss of soils (lime-rich loamy and clayey soils with impeded drainage) but the land is not classified ¹¹ as important agricultural land (grade 2 and 3) and such loss is of minor significance. As mentioned previously, the site lies within a drinking water protected area which is identified as being 'probably at risk.' ¹² Development could have minor negative effects on water use through	O?

⁹ Defra (2014) Magic – Landscape <http://magic.defra.gov.uk> [accessed March 2014]

¹⁰ Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council (2013) Joint Core Strategy Landscape Characterisation Assessment and Sensitivity Analysis

¹¹ Defra (2014) Magic – Agricultural Land Classification <http://magic.defra.gov.uk>

¹² Environment Agency (2014) Flood Maps Online at <http://maps.environment-agency.gov.uk>

Strategic Allocation: A1 Innsworth		
Sustainability Objective	Assessment of Effects	
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	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha, 1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities	
Minimise the use of natural resources including soil, water and Greenfield land through good design	potential for increased demand from new residential and community facilities. However, this is mitigated by Policy SD4.	
	The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. The scale of the urban extension approach will facilitate opportunities for water recycling with minor positive effects for water use – effectiveness depends upon details of planning brief and masterplanning.	
	The strategic site is situated on Greenfield land in the Green Belt but is considered to contribute less than other areas as identified in the Green Belt Review ¹³ . Therefore, the potential major negative effects on setting are less, the proposed GI will act as a landscape buffer; uncertainty as depends upon details of planning brief and masterplanning.	
7 HISTORIC ENVIRONMENT	Gloucester has a rich, important and distinctive historic heritage and environment. There are no conservation areas, listed buildings or scheduled monuments on or adjacent to the allocation site ¹⁴ . In addition, protection for the historic environment is provided in the wording of Policy SD9; thus effects are likely to be neutral.	O ?
Protect and enhance the area's distinctive historic environment	However, the potential for archaeology is unknown at this stage and there currently is no policy to provide protection/ mitigation against direct effects on archaeological assets. In the absence of a protection policy, the effects therefore are considered to be uncertain.	

¹³ Green Belt Review (2011) <http://www.gct-jcs.org/Documents/EvidenceBase/JCSGBReviewFinalSept2011.pdf> (accessed March 2014)

¹⁴ English Heritage (2014) National Heritage List for England. Online at <http://list.english-heritage.org.uk/mapsearch.aspx> [accessed March 2014]

Strategic Allocation: A1 Innsworth			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha,1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities	
8	SUSTAINABLE TRANSPORT Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by the private car	<p>The potential allocation has a network of footpaths which could be enhanced as part of an overall sustainable transport plan for the site. These paths could provide good linkages to, and improvements to, existing public transport facilities on the A38 and A40 for commuting into the city thus reducing the need to travel by high carbon modes of transport. This should be secured through Policies SD5, INF1 and INF2 which require passenger transport links, safe and convenient pedestrian and cycle routes within and adjoining the development.</p> <p>The urban extension here provides good opportunities to link from the rest of the city and to the wider countryside.</p> <p>Given the size of the allocation and although there are no known traffic and transport issues, it is likely that there could both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. However, mitigation is provided in Policy INF2.</p> <p>The implementation and effectiveness of mitigation measures and potential enhancement is more certain with the reinstatement of site specific requirements in Policy SA 1 (and other Core Policies together with clear planning briefs and masterplanning), including requirements for new junction onto A40, mitigation of traffic impact, high quality public transport, and safe, easy pedestrian & cycle links.</p>	++ ?
9	WASTE AND POLLUTION	Given the scale of development proposed there are likely to be negative effects as large amounts of waste will be created in the short-term during construction and in the long-term by additional	-

Strategic Allocation: A1 Innsworth			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
	Minimise pollution and waste to landfill	Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha, 1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities	
		households and businesses generating waste day to day. Mitigation has been put in place in the long-term only through the requirement to submit a waste minimisation statement under Policy SD4.	
		Air, light and noise pollution are likely to increase – particularly during the construction phases in the shorter term. This may affect the residential areas to the South East and East of the proposed strategic site. Mitigation is provided by Policy SD15.	
10	THE ECONOMY	The provision of 9.1 ha of employment land, especially in a location close to good access, transport, housing and close proximity to existing/proposed employment areas, will have major positive effects on objectives for economic sustainability.	++
	Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses		
11	CITY AND TOWN CENTRES	The urban extension approach with a strategic site providing both housing and employment land at the edge of the city (within 3.2 km) with good transport into the centre will support the vitality and viability of the city centre with major positive effects.	++

Strategic Allocation: A1 Innsworth			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
	Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40		
	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2104 SA: H=55.7 ha,1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities		
Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations			
12 SUSTAINABLE COMMUNITIES: EQUALITY Reduce inequalities in wellbeing and opportunity	The allocation could reduce inequalities in wellbeing and opportunity through providing good quality housing, employment opportunities and an improved transport network to create better access to facilities and services for all – effectiveness depends upon details of masterplanning (and see SA Objective numbers 8 Transport 14 Health and 15 Housing). The urban extension approach provides a scale at which high quality design and accessibility for all should be more deliverable and certain.		++
13 SUSTAINABLE COMMUNITIES: SAFETY Reduce crime and the fear of crime	The allocation could provide an opportunity to reduce crime as employment land is to be made available for development which could provide additional jobs and good quality housing. This will provide attractive places to live and work which people will want to look after and where people will feel safe. Policy SD5 requires, where appropriate, that new development should demonstrate how a design principle relating to safety and security has been incorporated which is likely to lead to minor positive effects.		+

Strategic Allocation: A1 Innsworth			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		<p>Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40</p> <p>Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester</p> <p>2104 SA: H=55.7 ha,1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities</p>	
14	<p>HEALTH</p> <p>Improve access to health facilities and promote healthy</p>	<p>The opportunities for improved accessibility to green space as part of wider GI network, including footpaths and the Gloucestershire Way, long distance path, will have positive effects on health.</p> <p>The allocation also includes extra care facilities leading to long-term positive effects on health.</p> <p>The potential site includes local primary school and children's centre; sustainability could be enhanced if such facilities could provide other uses, especially for older children/young adults in the evening, and/or local doctor/nurse attendance.</p> <p>The site is not within walking of health care facilities although in the wording of Policy INF5 there is a requirement for the provision of contributions for local infrastructure including facilities and services. Despite local health facilities not being specified, it is assumed that this is a consideration.</p> <p>In addition, Policy SD15 requires a proposal for development at this site must be accompanied by a Health Impact Assessment.</p>	++
15	<p>HOUSING</p> <p>Ensure everyone has access to a decent home that they can afford and meets their needs</p>	<p>Major positive effects for contributing to the locally identified need for housing, including affordable housing. The scale of the allocation should enable a good range of type and tenure with flexibility for changing needs over time with long term cumulative positive effects – details depend on planning brief and masterplanning.</p> <p>Policies SD11, SD4, SD12, SD13 and SD5 will ensure that that new housing provides the right mix and type, a contribution to affordable housing, and also the development of high quality sustainable homes. This will have major long-term positive effects on housing.</p>	++

Strategic Allocation: A1 Innsworth			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		<p>Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40</p> <p>Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester</p> <p>2104 SA: H=55.7 ha, 1250 dwellings; E= 9.1 ha; new junction from A40; new primary school and children's centre; new local centre with community facilities</p>	
16	<p>GREEN SPACE</p> <p>Create, enhance, protect, connect and improve access to open spaces</p>	There are 5 footpaths crossing the potential site and linking to the Gloucestershire Way, a long distance route between Tewkesbury and Chepstow. Accessibility will be enhanced through the improvement to the GI network – if implemented through Policy INF4. The potential site includes possibilities for enhancing access from the existing housing to the SE.	++
17	<p>EDUCATION AND SKILLS</p> <p>Improve access to education and life-long learning and enhance skills</p>	The urban extension approach with easy accessibility from the edge to the city centre will support existing educational services. Provision of a primary school is a requirement of the proposals so there will be no adverse effects through overloading capacity of existing schools.	++
18	<p>CULTURE AND TOURISM</p> <p>Protect and enhance cultural heritage and promote tourism</p>	There are no cultural heritage or tourism assets on or adjacent to the site that are likely to be affected, so the effects are likely to be neutral.	0

Strategic Allocation: A1 Innsworth	
Sustainability Objective	Assessment of Effects
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making
	Description: 1300 dwellings; E=approx. 9 ha; new local centre, school, GI network in FZ 2&3, new junction to A40
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<p>Summary of Key Negative and Positive Effects for Sustainable Development:</p> <p>The allocation is located on a parcel of Land to the north of the City of Gloucester, adjacent to Innsworth. The allocation supports the SA objectives of Climate change adaptation and Transport, with uncertainty of effects on Historic environment and Sustainable communities – safety. There is potential for minor negative effects on the SA objectives of Resources – use and quality and Waste and pollution, given the location of the option on Greenfield land in the green belt, being located in a groundwater drinking water protected area and the scale of the development proposed.</p> <p>Key Negative Effects:</p> <ul style="list-style-type: none"> ▪ No significant negative environmental effects have been identified. <p>Key Positive Effects:</p> <ul style="list-style-type: none"> ▪ The allocation is likely to lead to significant positive environmental effects on the following SA objectives: Biodiversity; Flooding; The Economy; City and town centres; Sustainable communities - equality and wellbeing; Health; Housing; Green Space; and Education and skills. <p>Mitigation, Recommendations and Residual Effects for Plan-making</p> <ul style="list-style-type: none"> ▪ None. 	

Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
1	BIODIVERSITY Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats	<p>There are no international, national or local nature conservation designations on or adjacent to the allocation site which could be directly affected¹⁵. The site is predominantly arable with a small areas of deciduous woodland priority habitat at the north ¹⁶. The Carrant Brook runs north to south near the eastern edge of the site which could house some riparian habitat and species.</p> <p>Mitigation and enhancements to reduce any negative effects and improve the existing habitats or create new ones are required. This expected to have major positive effects given the current biodiversity value of the site.</p> <p>The presence of protected species is not known at this stage. It is recommended that surveys are carried out at the development management level to establish presence/absence and then, if present, appropriate mitigation should be put in place to reduce any short/ long term negative effects on and provide enhancement for protected species.</p> <p>Mitigation could be provided by site specific requirements in Policy SA1 and this would help ensure implementation and removal of any uncertainty.</p>	++
2	CLIMATE CHANGE MITIGATION		+

¹⁵ Defra (2013) Magic – Statutory Rural Designations. Online at <http://magic.defra.gov.uk> [accessed September 2013].

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Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
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		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
	Reduce contribution to climate change and support households and businesses in reducing their carbon footprint	<p>There is potential to reduce contribution to climate change on the site through compliance with Policies SD4, SD5 and INF4. This is likely to lead to minor positive effects in the long-term on climate change mitigation.</p> <p>The effects also depend upon implementation and details of other policies. Overall, the urban extension approach will better promote possibilities for delivery of climate change mitigation.</p>	
3	CLIMATE CHANGE ADAPTATION Adapt to the consequences of climate change	<p>The requirements reducing flood risk under Policy INF3 will contribute to positive effects for climate change adaptation (and see SA Objective No. 4 Flooding following).</p> <p>The scale of urban extension developments offers more possibilities for delivery of resilience and SUDS.</p> <p>Climate change adaption measures are required by Policy SD4 and as a result, the effects on climate change adaptation are expected to be minor positive Flooding is considered separately under SA Objective No. 4.</p>	+
4	FLOODING	The Carrant Brook runs to north to south along the eastern part of the site and around the Brooks' borders it has been identified as an area of medium to high flood risk ¹⁷ . This accounts for approximately 30% of the site and development on this flood risk area would lead to major	++

¹⁷ Environment Agency (2013) Flood Maps – Risk of Flooding from Rivers and Sea. Online at ([http://: maps.environment-agency.gov.uk](http://maps.environment-agency.gov.uk) [accessed September 2013])

Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
	Manage and reduce flood risk and surface water run-off	<p>negative effects. The major negative effects could be prevented if potential development avoided the areas of flood risk and implemented sustainable drainage, and all according to site specific requirements in Policy SA1. It is understood that developer proposals include such mitigation and enhancement measures such that there are overall major positive effects indicated.</p> <p>In addition, there is potential for long-term negative effects on surface water due to the imposition of impermeable surfaces which could lead to an increase in surface water run-off and therefore surface water flooding. To reduce potential negative effects on surface water run-off mitigation could be provided by site specific requirements in Policy SA1. As a result, it is considered that effects on surface water flooding will be neutral.</p>	
5	<p>NATURAL ENVIRONMENT AND RESOURCES: QUALITY</p> <p>Protect and improve the quality of natural resources including soil, water and landscape</p>	<p>All of the site falls within a surface water nitrate vulnerable zone meaning that it is particularly sensitive to water pollution. In addition, the south of the site is located on a minor aquifer which is considered to be of high vulnerability. As mentioned in SA objective No. 4, the Carrant Brook runs to the south of the site and could be a potential receptor for contaminants from surface water run-off generated by the impermeable surfaces of any development. Development could have minor negative effects on groundwater quality from contaminated run-off particularly during construction. Further mitigation to protect water quality at the development management level in line with that provided by Policies INF3, SD15 and SD4 may be required through site specific requirements. If implemented, neutral effects on water and soil are indicated.</p>	<p>○ +</p>

Potential Strategic Allocation: Land at Mitton							
Sustainability Objective	Assessment of Effects						
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty						
	Description: 500 dwellings (Phase 1)						
	Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing						
		The area is not in or adjacent to any landscape designations and there is industrial development to the south-east. The site is considered to be in an area of medium sensitivity landscape ¹⁸ . Therefore, the effects of the development are unlikely to be significant and the landscape could be replaced or substituted – or improved. Mitigation could be provided by site specific requirements in Policy SA1, including provision of Green Infrastructure which will again help screen the development from the surrounding area and also help it to blend into the surrounding landscape, and use of existing field boundaries where practical to try and maintain existing landscape features. With implementation of such mitigation and enhancement measures, minor positive effects are indicated for landscape.					
6	NATURAL ENVIRONMENT AND RESOURCES: USE Minimise the use of natural resources including soil, water and Greenfield land through good design	<p>The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. The site is located on Greenfield land which is currently used for agricultural purposes and as a result it does not support this SA objective. However, Policy SD4 and other Core Policies provide mitigation; site specific requirements, such as provision of a fragmented development edge and integration of landscape buffers with GI will mitigate and should reduce negative effects to neutral.</p> <p>With regard to soils, the development will lead to the loss of soil as a direct result of development. The south of the site contains grade 3 and 3a agricultural land which is considered to be of good to moderate quality and therefore development of the south would lead to minor negative long-term effects.</p>	<table border="1"> <tr> <td style="background-color: #0070C0; color: white; text-align: center;">O</td> <td style="background-color: #FFD700; text-align: center;">-</td> </tr> <tr> <td style="background-color: #0070C0; color: white; text-align: center;">?</td> <td style="background-color: #FFD700; text-align: center;">-</td> </tr> </table>	O	-	?	-
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¹⁸ Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council (2013) Joint Core Strategy Landscape Characterisation Assessment and Sensitivity Analysis (Draft).

Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
		<p>Development could have minor negative effects on water use through potential for increased demand from new housing. However, this is mitigated by Policy SD4.</p> <p>The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. The scale of the urban extension approach will facilitate opportunities for water recycling with minor positive effects for water use – effectiveness depends upon details of planning brief and masterplanning.</p>	
7	<p>HISTORIC ENVIRONMENT</p> <p>Protect and enhance the area's distinctive historic environment</p>	<p>There are no conservation areas, scheduled monuments on or adjacent to the site¹⁹. There is a listed building (Mitton Lodge – grade II listed) located on the western edge of the site and this could be directly affected by the development. Also, Mitton Farmhouse another Grade II listed building is in close proximity.</p> <p>Protection for the historic environment is provided in the wording of Policy SD9. Further mitigation could be provided by site specific requirements in Policy SA1. Therefore, the effects are expected to be neutral.</p> <p>The site is located in the area of Bredon Hill and the Carrant Valley which is 'probably the wealthiest site in Gloucestershire for archaeology'²⁰ and the scale of the allocation is of a</p>	<p>O ?</p>

¹⁹ English Heritage (2013) National Heritage List for England. Online at <http://list.english-heritage.org.uk/mapsearch.aspx> [accessed September 2013]

²⁰ Worcestershire County Council (2012) Archaeology of Bredon and Carrant Valley Homepage. Online at <http://www.worcestershire.gov.uk/cms/archaeology/education-and-outreach/unlocking-the-past/e-gallery/bredon-hill-carrant-valley.aspx>

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Sustainability Objective	Assessment of Effects	
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
	Description: 500 dwellings (Phase 1)	
	Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
		sufficiently large size which could pose a risk to buried archaeological deposits. In the absence of a protection policy, the effects therefore are considered to be uncertain.
8	SUSTAINABLE TRANSPORT Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by the private car	<p>The site is adjacent to the B4080 and there are limited opportunities for pedestrians to access facilities nearby. There is only one bus stop located approximately 120 m from the northern part of the site which would offer access to Tewkesbury's centre. However, mitigation could be provided through site specific requirements in Policy SA1 such as requiring maximisation of opportunities for sustainable travel and increasing non car use and other transport and infrastructure improvements. This could lead to major long-term positive effects. Also within the policy wording, provision of transport measures including sustainable transport, improved network, pedestrian access and cycle routes are explicit which should lead to long-term positive effects.</p> <p>Given the size of the site, it is likely that there could both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. However, mitigation would be provided through provision of a Transport Assessment which should make clear how cycleways and footpaths can be integrated into the existing network to help avoid conflict of users and promote sustainable travel. It is considered that the effects will be neutral.</p> <p>Overall, some uncertainty until details of masterplanning available.</p>
		++?

Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
9	WASTE AND POLLUTION Minimise pollution and waste to landfill	<p>The majority of the allocation site is located on Greenfield agricultural land and therefore it is considered that there is limited potential for contamination to be present. There is a requirement under D Environment for the developer to investigate and mitigate any contamination within the site through agreed remediation techniques which should reduce any negative effects.</p> <p>In terms of waste, given the scale of development proposed there are likely to be negative effects as large amounts of waste will be created in the short-term during construction and in the long-term by the additional housing generating waste day to day. Mitigation has been put in place through the requirement to submit a waste management plan to include provision of space for storage of recycling facilities per dwelling with the planning application under E General.</p> <p>Furthermore, there could be both short-term (during construction) and long-term negative effects on the air pollution as a result of an increase in traffic and the potential to generate dust during construction. Mitigation is offered to reduce traffic as outlined under SA Objective 8.</p> <p>There is the potential for development at this site to have a negative effect on pollution through increased levels of traffic and therefore atmospheric pollution. Tewkesbury High Street is designated as an AQMA for nitrogen dioxide. Development at this site will increase the level of traffic along the high street and therefore the levels of atmospheric pollution within the AQMA.</p> <p>The effects on waste and pollution at this stage are considered to be minor negative at this stage given the need for further mitigation to be developed to reduce negative effects of noise, air quality and construction waste in the short-term.</p>	-

Potential Strategic Allocation: Land at Mitton			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
10	THE ECONOMY Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses	It is not known at this stage whether development of this site would include employment & therefore the effects are uncertain.	?
11	CITY AND TOWN CENTRES Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations	<p>The southern tip of the site is located approximately 1.3 km from Tewkesbury's centre and the northern tip is near 3 km away. The closest bus stop to provide access to Tewkesbury's centre is approximately 120 m from the northern edge of the site. It is unclear how the site could support the vitality and viability of Tewkesbury's centre and uncertainty in the long-term.</p> <p>However, it is understood that the developer's Supporting Transport Statement reports that the site is within the acceptable standard for cycling distances of 5km. The implementation and effectiveness of mitigation measures and potential enhancement would be more certain with the reinstatement of site specific requirements in Policy SA1 (and other Core Policies together with clear planning briefs and masterplanning), including requirements for sustainable transport, and then minor positive effects are indicated.</p>	+

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Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
12	SUSTAINABLE COMMUNITIES: EQUALITY Reduce inequalities in wellbeing and opportunity	The site could reduce inequalities in wellbeing and opportunity if it provides good quality housing and an improved transport network to create better access to facilities and services for all – effectiveness depends upon details of masterplanning (and see SA Objective Numbers 8 Transport 14 Health and 15 Housing). It is anticipated that development of the site will lead to minor positive effects on this SA Objective.	+
13	SUSTAINABLE COMMUNITIES: SAFETY Reduce crime and the fear of crime	The site could provide an opportunity to reduce crime as good quality housing and employment facilities can create attractive places to live and work which people would like to care for and where people can feel safe. At present, the effects are considered to be uncertain and may depend on design and layout details at the development management level.	?
14	HEALTH Improve access to health facilities and promote healthy	Requirements for provision with improvements for accessibility to open and green space as part of a wider GI network, including footpaths and cycleways (see SA Objective No. 7). This will have positive effects on health with minor positive long term effects if implemented successfully. This will depend in part on ensuring that GI is provided as part of development and includes provision for long term management.	+

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Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: 500 dwellings (Phase 1)	
		Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing	
15	HOUSING Ensure everyone has access to a decent home that they can afford and meets their needs	The site could provide for a large number of new homes including affordable housing. This will have major long-term positive effects on housing for contributing to the locally identified need for housing.	++
16	GREEN SPACE Create, enhance, protect, connect and improve access to open spaces	The site is Greenfield land which is currently used for agricultural purposes. Its development will ultimately remove this green space constituting a long-term minor negative effect on green space. Mitigation could be provided in site specific requirements in Policy SA1 that further enhancement is carried out to existing space, that landscaping and structural planting is carried out throughout the development, and that green infrastructure is implemented through the site. This should reduce negative effects and could lead to minor positive effects on green space.	+?
17	EDUCATION AND SKILLS Improve access to education and life-long learning and enhance skills	Access to education facilities is relatively poor with the majority of the site being located over 2 km from the nearest school. It is uncertain at this stage whether additional educational facilities would be provided on site in the longer term and as a result any development is considered to lead to minor negative effects.	-?
18	CULTURE AND TOURISM	Given the nature of the allocation, effects of this SA Objective are considered to be neutral.	○

Potential Strategic Allocation: Land at Mitton	
Sustainability Objective	Assessment of Effects
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	Description: 500 dwellings (Phase 1)
	Initial SA Summary Report (2011) Ref.: part of original broad location sub area T1 – Land at Mitton 2014 SA: 126.6 ha of housing
Protect and enhance cultural heritage and promote tourism	
<p>Summary of Key Negative and Positive Effects for Sustainable Development: The site is located on a parcel of land to the North of Tewkesbury and is by the M5 to the East. Development of the site would support the SA objectives of: Climate Change Adaptation and Mitigation; Transport; Sustainable Communities – equalities; Health; and Green Space with uncertainty of effects on: Historic Environment; Economy; and Sustainable Communities – safety. There is potential for minor negative effects on the SA objective of: Education and Skills; City and Town Centres; Waste and Pollution; soils (loss of moderate to good quality agricultural land); and on water quality.</p> <p>Key Negative Effects:</p> <ul style="list-style-type: none"> ▪ Development of the site is likely to lead to major negative on flooding given that 30% is located in an area of medium to high risk flooding but this can be mitigated through avoidance. <p>Key Positive Effects:</p> <ul style="list-style-type: none"> ▪ The allocation is likely to lead to significant positive environmental effects on the SA objectives of Biodiversity and Housing. <p>Mitigation, Recommendations and Residual Effects for Plan-making</p> <ul style="list-style-type: none"> ▪ It would be recommended that the area identified as being at risk of flooding should be excluded from any development. This would prevent any major negative effects identified on Flooding. ▪ Given the site has poor access to existing educational facilities; it would be recommended that additional facilities are provided on site if possible. This would result in minor positive residual effects on Education and Skills. 	

Twigworth

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)		
Sustainability Objective	Assessment of Effects	
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
	<p>Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?</p> <p>Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester</p> <p>2014 SA: 2084 dwellings;</p>	
<p>1</p> <p>BIODIVERSITY</p> <p>Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats</p>	<p>There are no internationally protected habitats²¹ on or adjacent to the site although there is one nationally protected area Innsworth Meadow – as a SSSI and Priority BAP²² Habitat for lowland meadow (condition - recovering favourable). Therefore, no significant negative effects on protected biodiversity. There is some 40-50% overlap by area with this meadowland in the NW corner of the proposed housing with potential negative effects but also potential positive effects if the meadowland could be improved as part of the masterplanning.</p> <p>There are no LNRs in the area (see SA Objective No 16 Green Space). There are possibilities for very positive effects by enhancing the protected lowland meadow with improved connectivity to a wider managed floodplain habitat –both in the short and longer terms. Limited potential for new GI along the Hatherley Brook in the SW corner to be actively managed for biodiversity purposes in line with Policy INF4 will have minor positive effects.</p>	+

²¹ Defra (2014) Magic – Statutory Rural Designations - <http://magic.defra.gov.uk>

²² Gloucestershire County Council Biodiversity Delivery Plan - <http://www.gloucestershirebap.org.uk>

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
	Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?		
	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;		
		The implementation and effectiveness of mitigation measures and potential enhancement would be more certain with the reinstatement of site specific requirements in Policy SA 1 (and other Core Policies together with clear planning briefs and masterplanning), including new GI.	
		The presence of protected species is unknown at this stage and there could be potential for the allocation to directly destroy habitat or indirectly cause pollution/ disturbance. Mitigation is provided in the wording of SD10 & site specific requirements in SA1.	
2	CLIMATE CHANGE MITIGATION	There is potential to reduce contribution to climate change on the site through compliance with Policies SD4, SD5 and INF4. This is likely to lead to minor positive effects in the long-term on climate change mitigation.	+
	Reduce contribution to climate change and support households and businesses in reducing their carbon footprint	The effects also depend upon implementation and details of other policies. Overall, the urban extension approach will better promote possibilities for delivery of climate change mitigation.	
3	CLIMATE CHANGE ADAPTATION	The requirements reducing flood risk under Policy INF3 will contribute to positive effects for climate change adaptation (and see SA Objective No. 4 Flooding following).	+
	Adapt to the consequences of climate change	The scale of urban extension developments offers more possibilities for delivery of resilience and SUDS.	

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;	
		Climate change adaption measures are required by Policy SD4 and as a result, the effects on climate change adaptation are expected to be minor positive.	
4	FLOODING Manage and reduce flood risk and surface water run-off	The Hatherley Brook is subject to flooding (Zone 3) ²³ . The strategic site allocation proposes development outside the small part of flood zone 3 to the south west, and GI in the flood zones thus reducing flood risk. The requirement for flood storage betterment across the site as recommended in SFRA2 ²⁴ to improve the capacity of the floodplain upstream of Longford will have wider positive effects for flood risk management. Policy INF3 and this will have positive effects in short to long-term.	++
5	NATURAL ENVIRONMENT AND RESOURCES: QUALITY Protect and improve the quality of natural resources including soil, water and landscape	The site lies within a drinking water protected area which is identified as being 'probably at risk' and lies on a minor aquifer which is considered to be of high vulnerability. ²⁵ Development could have minor negative effects on groundwater quality from contaminated run-off particularly during construction. Further mitigation to protect water quality at the development management level in line with that provided by Policies INF3, SD15 and SD4 may be required.	○

²³ Environment Agency (2014) Flood Maps. Online at (maps.environment-agency.gov.uk)

²⁴ Halcrow Group Ltd (July 2012) Gloucester, Cheltenham & Tewkesbury Joint Core Strategy. Strategic Flood Risk Assessment for Local Development Framework Level 2. Online at <http://www.gct-jcs.org/EvidenceBase/StrategicFloodRiskAssessment.aspx> [Accessed March 2014]

²⁵ Environment Agency (2014) Flood Maps – Risk of Flooding from Rivers and Sea. Online at (maps.environment-agency.gov.uk)

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective	Assessment of Effects		
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making		
	Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?		
	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;		
		The area is not in or adjacent to any landscape designations and is described as suburban ²⁶ and being in an area of medium - low sensitivity landscape ²⁷ . Therefore, the effects of the development are unlikely to be significant and the landscape could be replaced or substituted – or improved. The implementation and effectiveness of mitigation measures and potential enhancement would be more certain with the reinstatement of site specific requirements in Policy SA1 (and other Core Policies together with clear planning briefs and masterplanning), including requirements for layout that respects landscape character & separation of Longford, integrates important hedgerows, and reduces the impact of electricity pylons & high voltage lines in small corner of western part of site.	
6	NATURAL ENVIRONMENT AND RESOURCES: USE	There will be loss of soils (lime-rich loamy and clayey soils with impeded drainage) but the land is not classified ²⁸ as important agricultural land (grade 2 and 3) and such loss is of minor significance. As mentioned previously, the site lies within a drinking water protected area which is identified as being 'probably at risk.' ²⁹ Development could have minor negative effects on water use through	O?

²⁶ Defra (2014) Magic – Landscape <http://magic.defra.gov.uk> [accessed March 2014]

²⁷ Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council (2013) Joint Core Strategy Landscape Characterisation Assessment and Sensitivity Analysis

²⁸ Defra (2014) Magic – Agricultural Land Classification <http://magic.defra.gov.uk>

²⁹ Environment Agency (2014) Flood Maps Online at <http://maps.environment-agency.gov.uk>

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)		
<p>Sustainability Objective</p> <p>Minimise the use of natural resources including soil, water and Greenfield land through good design</p>	<p>Assessment of Effects</p> <p>Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making</p>	
	<p>Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?</p>	
	<p>Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;</p>	
	<p>potential for increased demand from new residential and community facilities. However, this is mitigated by Policy SD4.</p> <p>The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. The scale of the urban extension approach will facilitate opportunities for water recycling with minor positive effects for water use – effectiveness depends upon details of planning brief and masterplanning.</p> <p>The strategic site is situated on Greenfield land in the Green Belt but is considered to contribute less than other areas as identified in the Green Belt Review³⁰. Therefore, the potential major negative effects on setting are less, the proposed GI will act as a landscape buffer; uncertainty as depends upon details of planning brief and masterplanning.</p>	
<p>7</p> <p>HISTORIC ENVIRONMENT</p> <p>Protect and enhance the area's distinctive historic environment</p>	<p>Gloucester has a rich, important and distinctive historic heritage and environment. There are no conservation areas, listed buildings or scheduled monuments on or adjacent to the allocation site³¹. In addition, protection for the historic environment is provided in the wording of Policy SD9; thus effects are likely to be neutral.</p> <p>However, the potential for archaeology is unknown at this stage and there currently is no policy to provide protection/ mitigation against direct effects on archaeological assets. In the absence of a protection policy, the effects therefore are considered to be uncertain.</p>	<p>○ ?</p>

³⁰ Green Belt Review (2011) <http://www.gct-ics.org/Documents/EvidenceBase/JCSGBReviewFinalSept2011.pdf> (accessed March 2014)

³¹ English Heritage (2014) National Heritage List for England. Online at <http://list.english-heritage.org.uk/mapsearch.aspx> [accessed March 2014]

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)		
Sustainability Objective	Assessment of Effects	
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
	<p>Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?</p> <p>Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester</p> <p>2014 SA: 2084 dwellings;</p>	
<p>8 SUSTAINABLE TRANSPORT</p> <p>Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by the private car</p>	<p>The potential allocation has a network of footpaths which could be enhanced as part of an overall sustainable transport plan for the site. These paths could provide good linkages to, and improvements to, existing public transport facilities on the A38 and A40 for commuting into the city thus reducing the need to travel by high carbon modes of transport. This should be secured through Policies SD5, INF1 and INF2 which require passenger transport links, safe and convenient pedestrian and cycle routes within and adjoining the development.</p> <p>The urban extension here provides good opportunities to link from the rest of the city and to the wider countryside.</p> <p>Given the size of the allocation and although there are no known traffic and transport issues, it is likely that there could both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. However, mitigation is provided in Policy INF2.</p> <p>The implementation and effectiveness of mitigation measures and potential enhancement would be more certain with the reinstatement of site specific requirements in Policy SA 1 (and other Core Policies together with clear planning briefs and masterplanning), including requirements for new transport links to A38, mitigation of traffic impact, high quality public transport, and safe, easy pedestrian & cycle links.</p>	<p>++ ?</p>
<p>9 WASTE AND POLLUTION</p>	<p>Given the scale of development proposed there are likely to be negative effects as large amounts of waste will be created in the short-term during construction and in the long-term by additional</p>	<p>-</p>

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester	
		2014 SA: 2084 dwellings;	
	Minimise pollution and waste to landfill	households and businesses generating waste day to day. Mitigation has been put in place in the long-term only through the requirement to submit a waste minimisation statement under Policy SD4. Air, light and noise pollution are likely to increase – particularly during the construction phases in the shorter term. This may affect the residential areas to the South East and East of the proposed strategic site. Mitigation is provided by Policy SD15.	
10	THE ECONOMY Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses	N/A	0
11	CITY AND TOWN CENTRES	The urban extension approach with a strategic site providing both housing and employment land at the edge of the city (within 3.2 km) with good transport into the centre will support the vitality and viability of the city centre with major positive effects.	++

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester	
		2014 SA: 2084 dwellings;	
	Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations		
12	SUSTAINABLE COMMUNITIES: EQUALITY Reduce inequalities in wellbeing and opportunity	The allocation could reduce inequalities in wellbeing and opportunity through providing good quality housing, employment opportunities and an improved transport network to create better access to facilities and services for all – effectiveness depends upon details of masterplanning (and see SA Objective numbers 8 Transport 14 Health and 15 Housing). The urban extension approach provides a scale at which high quality design and accessibility for all should be more deliverable and certain.	++
13	SUSTAINABLE COMMUNITIES: SAFETY Reduce crime and the fear of crime	The allocation could provide an opportunity to reduce crime as it will provide good quality housing. This will provide attractive places to live which people will want to look after and where people will feel safe. Policy SD5 requires, where appropriate, that new development should demonstrate how a design principle relating to safety and security has been incorporated which is likely to lead to minor positive effects.	+
14	HEALTH	The opportunities for improved accessibility to green space as part of wider GI network, including footpaths and the Gloucestershire Way, long distance path, will have positive effects on health.	++

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
	Sustainability Objective	Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
		Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;	
	Improve access to health facilities and promote healthy	<p>The allocation also includes extra care facilities leading to long-term positive effects on health.</p> <p>The potential site includes local primary school and children's centre; sustainability could be enhanced if such facilities could provide other uses, especially for older children/young adults in the evening, and/or local doctor/nurse attendance.</p> <p>The site is not within walking of health care facilities although in the wording of Policy INF5 there is a requirement for the provision of contributions for local infrastructure including facilities and services. Despite local health facilities not being specified, it is assumed that this is a consideration.</p> <p>In addition, Policy SD15 requires a proposal for development at this site must be accompanied by a Health Impact Assessment.</p>	
15	HOUSING	<p>Major positive effects for contributing to the locally identified need for housing, including affordable housing. The scale of the allocation should enable a good range of type and tenure with flexibility for changing needs over time with long term cumulative positive effects – details depend on planning brief and masterplanning.</p> <p>Policies SD11, SD4, SD12, SD13 and SD5 will ensure that that new housing provides the right mix and type, a contribution to affordable housing, and also the development of high quality sustainable homes. This will have major long-term positive effects on housing.</p>	++
	Ensure everyone has access to a decent home that they can afford and meets their needs		
16	GREEN SPACE		++

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)			
Sustainability Objective		Assessment of Effects	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making	
Create, enhance, protect, connect and improve access to open spaces		Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?	
		Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;	
		There are footpaths crossing the potential site and linking to the Gloucestershire Way, a long distance route between Tewkesbury and Chepstow. Accessibility will be enhanced through the improvement to the GI network – if implemented through Policy INF4.	
17	EDUCATION AND SKILLS	The urban extension approach with easy accessibility from the edge to the city centre will support existing educational services. Uncertainty of provision of educational facilities.	+?
	Improve access to education and life-long learning and enhance skills		
18	CULTURE AND TOURISM	There are no cultural heritage or tourism assets on or adjacent to the site that are likely to be affected, so the effects are likely to be neutral.	0
	Protect and enhance cultural heritage and promote tourism		

Potential Strategic Allocation: Twigworth (includes potential safeguarded land)	
Sustainability Objective	Assessment of Effects
	Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); mitigation possibilities, residual effects; Uncertainty; Recommendations for plan-making
	Description: 1600 dwellings; GI network in FZ 3; new school & community facilities?
	Initial SA Summary Report (2011) Ref.: part of original broad location G1-Land North of Gloucester 2014 SA: 2084 dwellings;
<p>Summary of Key Negative and Positive Effects for Sustainable Development:</p> <p>The allocation is located on a parcel of Land to the north of the City of Gloucester, adjacent to Innsworth. The allocation supports the SA objectives of Climate change adaptation and Transport, with uncertainty of effects on Historic environment and Sustainable communities – safety. There is potential for minor negative effects on the SA objectives of Resources – use and quality and Waste and pollution, given the location of the option on Greenfield land in the green belt, being located in a groundwater drinking water protected area and the scale of the development proposed.</p> <p>Key Negative Effects:</p> <ul style="list-style-type: none"> ▪ No significant negative environmental effects have been identified. <p>Key Positive Effects:</p> <ul style="list-style-type: none"> ▪ The allocation is likely to lead to significant positive environmental effects on the following SA objectives: Biodiversity; Flooding; City and town centres; Sustainable communities - equality and wellbeing; Health; Housing; and Green Space. <p>Mitigation, Recommendations and Residual Effects for Plan-making</p> <ul style="list-style-type: none"> ▪ None. 	

Potential Strategic Allocation: West of Cheltenham				
Sustainability Objective		Assessment of Effect		
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years) / long term (10-20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty		
		Description: H = 500 dwellings and 40ha of employment land		
		Initial SA Summary Report (2011) Ref: previously assessed as part of original broad location C5; SA recommended that the southern and eastern parts of this broad location are taken forward as positive effects for transport & accessibility.		
1	BIODIVERSITY	Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats	There are no international, or national nature conservation designations on or adjacent to the allocation site which could be directly affected ³² . The site does however contain Fiddler's Green Lane Key Wildlife Site. It is assumed that this area could be retained in development, however there is the potential for a residual minor negative effect on biodiversity as a result of increased noise and light pollution and disturbance. The site is predominantly arable and characterised by fields surrounded by hedgerows, with opportunities to enhance biodiversity. There is a Lowlands Meadows BAP Priority Habitat in the south east corner of the site, and small areas of Deciduous Woodland Priority Habitats across the site. Development has the potential to restore and enhance the BAP priority habitats, and improve community access to this area, in line with Policy SD10, with the potential for major positive effects. Protected species should be safeguarded in line with Policy SD10.	++
2	CLIMATE CHANGE MITIGATION	Reduce contribution to climate change and support households and businesses in reducing their carbon footprint	There is the potential to reduce contribution to climate change on the site through compliance with Policy SD4 which requires a minimum of 10% of energy demand to come from decentralised and renewable or low carbon sources. This is likely to lead to minor positive effects on climate change mitigation, and these positive effects would be enhanced by a higher percentage than 10%. The effects further depend upon implementation of other policies including; SD4 on sustainable design, SD5 advising design requirements, and policies which seek to encourage a modal shift, including Policy SD5.	+

³² Defra (2013) Magic Map Application. Online at <http://magic.defra.gov.uk> [accessed April 2016]

3	<p>CLIMATE CHANGE ADAPTATION</p> <p>Adapt to the consequences of climate change</p>	<p>In accordance with Policy SD4 all development will be expected to be adaptable to climate change in respect of the design, layout, siting, orientation and function of buildings and external spaces. Therefore, the effects on climate change adaptation are expected to be minor positive. [It should be noted that flooding is considered separately under SA Objective 4.]</p>	+	
4	<p>FLOODING</p> <p>Manage and reduce flood risk and surface water run-off</p>	<p>The site option is not located within Flood Risk Zones 2 or 3; however, areas of the site in the north west corner and along the southern boundary are identified as susceptible to surface water flooding³³. Policy INF3 requires new development to incorporate suitable Sustainable Drainage Systems to manage surface water drainage, which should mitigate any potential negative effects. Potential for a residual neutral effect.</p>	0	
5	<p>NATURAL ENVIRONMENT AND RESOURCES: QUALITY</p> <p>Protect and improve the quality of natural resources including soil, water and landscape</p>	<p>The site option is not located within or adjacent to any landscape designations and the previously assessed strategic allocation C5 was identified as of medium – low landscape sensitivity. The Vision Statement for the site also identifies that views into the site are generally well screened by existing vegetation. There are views towards the Cotswolds escarpment from open, higher points in the site, and development should seek to retain these. There is the potential for minor positive effects on landscape character through habitat restoration (as identified against the topic of biodiversity) and positive contributions to Green Infrastructure in line with Policy INF4.</p> <p>The site option partially overlies a minor aquifer of intermediate vulnerability³⁴. Development could have minor negative effects on groundwater quality from contaminated run-off particularly during construction.</p>	+	-
6	<p>NATURAL ENVIRONMENT AND RESOURCES: USE</p> <p>Minimise the use of natural resources including soil, water and Greenfield land through good design</p>	<p>The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. Mitigation for potential negative effects arising is provided through Policy SD4.</p> <p>The site option is located within the Green Belt, and is predominantly Greenfield land. Development at the site option could result in the loss of Grade 3 agricultural land although at this stage it is not known if this is sub-grade 3a or 3b. Development is considered to have the</p>	-	

³³ Environment Agency (2016) Flood Maps - Risk of Flooding from Rivers and Sea, and Risk of Flooding from Surface Water [online] <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

³⁴ Environment Agency (2016) Drinking Water Safeguard Zones and Groundwater Maps [online] <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

		potential for minor long-term negative effects on the use of natural resources through the loss of agricultural land.	
7	HISTORIC ENVIRONMENT Protect and enhance the area's distinctive historic environment	There are no designated heritage assets within the site, however a small number of Listed Buildings are located adjacent to the site is the north west corner and to the south. Policy SD9 provides mitigation for the historic environment and seeks to conserve heritage in a manner appropriate to its significance. Development is unlikely to lead to any significant effects, with the potential for a residual neutral effect.	0
8	SUSTAINABLE TRANSPORT Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by private car	<p>The Vision Statement identifies that the site is located adjacent to the existing built up area of Springbank which contains a range of local services and facilities. There are also good public transport links locally and connecting with Cheltenham City Centre, as well as pedestrian and cycle connections with the potential for minor long term positive effects.</p> <p>Given the size of the allocation it is likely there could be both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. Mitigation may be required (and is available) to reduce potential negative effects. Mitigation is also provided through policies SD5 and INF7 which seek to reduce the potential negative effects of increases in traffic, improve accessibility and reduce the need to travel. Overall it is considered that there is the potential for a residual minor negative effect with an element of uncertainty at this stage.</p>	+ - ?
9	WASTE AND POLLUTION Minimise pollution and waste to landfill	<p>The site contains Hayden sewage works, which is expected to be relocated prior to the development of Phase 2 on site. Small areas of Phase 1 development however may be subject to odour pollution associated with the works until relocation has taken place with the potential for minor short term negative effects. Given the scale of development proposed, there are likely to be negative effects as a result of increased waste production, both in the short-term during construction and residential waste in the longer term. Mitigation provided through Policy SD4 should ensure that development will not lead to any significant negative effects, particularly through the requirement for a waste minimisation statement in large development proposals.</p> <p>The site is adjacent residential development in the east that may be sensitive to noise during construction. Mitigation is provided through Policies SD15 and INF2 to minimise potential negative effects.</p>	-

		<p>The site is located adjacent to Cheltenham which is a designated AQMA, it is likely that there could be both short-term (during construction) and long-term negative effects on air quality through increased traffic as a result of development. Mitigation for potential increases in traffic is noted above in the topic of sustainable transport.</p> <p>Overall it is considered that there is the potential for residual minor long-term negative effects on waste and pollution as a result of development at the site option.</p>	
10	<p>THE ECONOMY</p> <p>Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses</p>	<p>The site option is likely to lead to major long term positive effects on the economy through the provision of 40ha of new employment land.</p>	<p>++</p>
11	<p>CITY AND TOWN CENTRES</p> <p>Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations</p>	<p>Although the site option is located on the town's edge, it is well located in relation to the main settlement with opportunities to improve public transport (see SA Objective 8). Therefore, the site option is expected to support the vitality and viability of Gloucester City Centre, with the potential for major long term positive effects.</p>	<p>++</p>
12	<p>SUSTAINABLE COMMUNITIES: EQUALITY</p> <p>Reduce inequalities in wellbeing and opportunity</p>	<p>The allocation could provide a chance to reduce inequalities in wellbeing and opportunity through providing housing and employment opportunities and an improved transport network to create better access to services and facilities for all. At present, the effects are considered to be uncertain and may depend on negotiations at the development management level.</p>	<p>?</p>
13	<p>SUSTAINABLE COMMUNITIES: SAFETY</p> <p>Reduce crime and the fear of crime</p>	<p>The allocation could provide an opportunity to reduce crime as new housing could provide high quality and safe homes. Mitigation provided through Policy SD5 should ensure that there will be no significant negative effects, potential for a residual neutral effect with an element of uncertainty at this stage.</p>	<p>0 ?</p>
14	<p>HEALTH</p>	<p>The allocation provides the opportunity for the creation of new high quality homes, which will have minor indirect positive effects on health.</p>	<p>+</p>

	Improve access to health facilities and promote healthy lifestyles	Furthermore, Policies INF5 and INF7 seek the appropriate provision or accessibility to open space, which may lead to positive effects on health, with the potential for major long-term effects if implemented successfully. This will depend in part on ensuring that Green Infrastructure provided as a result of development includes provisions for long term management.	
15	HOUSING Ensure everyone has access to a decent home that they can afford and meets their needs	The site option is likely to lead to major long term positive effects on housing through the provision of 500 new high quality homes.	++
16	GREEN SPACE Create, enhance, protect, connect and improve access to open spaces	The site option is greenfield arable land and development will ultimately remove this green space constituting a long term minor negative effect on green space. However, development at this large site is likely to deliver new green space, or provide significant contributions to enhancing existing green space, which could result in higher quality open spaces with the potential for minor long term positive effects.	+
17	EDUCATION AND SKILLS Improve access to education and life-long learning and enhance skills	The site option does not propose educational / training facilities and as such is unlikely to lead to any significant effects against this SA Objective. The effects remain uncertain at this stage but are likely to be neutral.	0?
18	CULTURE AND TOURISM Protect and enhance cultural heritage and promote tourism	Given the nature of the site option, as housing and employment development, effects on this SA Objective are considered to be neutral.	0

Summary of Key Negative and Positive Effects for Sustainable Development:

The site option is located on a parcel of land to the west of Cheltenham, in between the existing urban area and the M5 motorway. The site option would support the SA Objectives of Biodiversity; Climate Change - Mitigation; Climate Change- Adaptation; Natural Environment and Resources - Quality; Sustainable Transport; City and Town Centres; Health; Housing and Green Space. There is the potential for minor negative effects on the SA Objective of Natural Environment and Resources - Use; Natural Environment and Resources - Quality; Sustainable Transport; and Waste and Pollution as a result of the large scale of development proposed.

Key Negative Effects:

- Development will result in the loss of greenfield and Grade 3 agricultural land located within the designated Green Belt
- Development is likely to increase traffic on the highways network, and indirectly negatively affect air quality
- Phase 1 development could be subject to short term minor negative effects on health and amenity until Hayden sewage works are relocated

Key Positive Effects (when Haydon sewage works are relocated or odour emissions are mitigated):

- The provision of new, high quality housing and supporting infrastructure (including new green space) which is resilient to the effects of climate change
- Delivery of development within an accessible location, with the potential to extend existing public transport routes
- Potential for restoration of a BAP Priority Habitat

Potential Strategic Allocation: 2 Sites at Winneycroft Lane/Corncroft Lane, Gloucester			
Sustainability Objective		Assessment of Effect	
		Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years) / long term (10-20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty	
		Description: H = 620 new dwellings	
		Initial SA Summary Report (2011) Ref: includes a very small part to the north-west of the previously assessed broad location G6.	
1	BIODIVERSITY Safeguard and enhance biodiversity and improve connectivity between green spaces and functional habitats	There are no international, national or local nature conservation designations on or adjacent to the allocation site which could be directly affected ³⁵ . The site is predominantly arable and characterised by fields surrounded by hedgerows, with opportunities to enhance biodiversity. There is a Traditional Orchard BAP Priority Habitat in the north east corner of the site, and surveys have identified the presence of protected species, including bats, badger, breeding birds and slow-worm. Development has the potential to restore and enhance the BAP priority habitat, and improve community access to this area, in line with emerging Policy SD10, with the potential for major positive effects. Protected species should be safeguarded in line with emerging Policy SD10. It should also be noted that the Sud Brook on-site flows into the Saintbridge Balancing Pond LNR, and mitigation measures to reduce potential negative effects have already been in discussion through the planning application 14/01470/OUT, and it is considered that suitable mitigation is available to ensure that there will be no significant negative effects. There is the potential to improve ecological connectivity between the BAP Priority habitat, the watercourse and the LNR.	++
2	CLIMATE CHANGE MITIGATION Reduce contribution to climate change and support households and	There is the potential to reduce contribution to climate change on the site through compliance with Policy SD4. This is likely to lead to minor positive effects on climate change mitigation. The effects further depend upon implementation of other policies including; SD4 on sustainable design, SD5 advising design requirements, and policies which seek to encourage a modal shift, including Policy SD5.	+

³⁵ Defra (2013) Magic Map Application. Online at <http://magic.defra.gov.uk> [accessed April 2016]

	businesses in reducing their carbon footprint		
3	CLIMATE CHANGE ADAPTATION Adapt to the consequences of climate change	In accordance with Policy SD4 all development will be expected to be adaptable to climate change in respect of the design, layout, siting, orientation and function of buildings and external spaces. Therefore, the effects on climate change adaptation are expected to be minor positive. [It should be noted that flooding is considered separately under SA Objective 4.]	+
4	FLOODING Manage and reduce flood risk and surface water run-off	The site option is not located within Flood Risk Zones 2 or 3; however, a small area that surrounds the Sud Brook is identified as susceptible to surface water flooding ³⁶ . Emerging Policy INF3 requires new development to incorporate suitable Sustainable Drainage Systems to manage surface water drainage, which should mitigate any potential negative effects. Potential for a residual neutral effect.	0
5	NATURAL ENVIRONMENT AND RESOURCES: QUALITY Protect and improve the quality of natural resources including soil, water and landscape	The site option is not located within or adjacent to any landscape designations and is separated from the high quality landscape of the AONB by the M5 motorway. The Landscape and Visual Impact Assessment that accompanied planning application 14/01063/OUT identifies a medium landscape sensitivity and an overall anticipated effect of proposed development on landscape character of the locality is assessed as minor beneficial and permanent. Both planning applications 14/01063/OUT and 14/01470/OUT which cover the whole of the site when combined identify that there is no significant negative effect on the landscape character of the area. There are several drainage features on site, as well as part of the Sud Brook. The site option is not located within a surface or groundwater protection, vulnerability or safeguard zone with the potential for a neutral effect. There is the potential for minor positive effects on landscape character through habitat restoration (as identified against the topic of biodiversity) and positive contributions to Green Infrastructure in line with Policy INF4.	+

³⁶ Environment Agency (2016) Flood Maps - Risk of Flooding from Rivers and Sea, and Risk of Flooding from Surface Water [online] <http://apps.environment-agency.gov.uk/wiyby/37837.aspx> [accessed April 2016]

<p>6</p>	<p>NATURAL ENVIRONMENT AND RESOURCES: USE</p> <p>Minimise the use of natural resources including soil, water and Greenfield land through good design</p>	<p>The effects on the use of natural resources will depend upon the design and construction methods to be used at the development management level. Mitigation for potential negative effects arising is provided through Policy SD4.</p> <p>The site option is not located within the Green Belt, however the site is entirely Greenfield land, and development at the site option could result in the loss of Grade 3b agricultural land with the potential for minor long-term negative effects on the use of natural resources.</p>	<p>-</p>
<p>7</p>	<p>HISTORIC ENVIRONMENT</p> <p>Protect and enhance the area's distinctive historic environment</p>	<p>The site option is located adjacent to Listed Buildings at Winneycroft Farm, and a Scheduled Monument (Moated Site at Sneedham's Green SM1019399) is located just south west of the site. The monument consists of a medieval moated site, of which the earthworks of the moat and buried structures survive. Its presence has led to the designation of the surrounding area by Gloucester City Council as an Area of Principal Archaeological Interest (APAI).</p> <p>The Heritage Setting Assessment that accompanies planning application 14/01063/OUT assesses the impact of the proposed development on seven Listed Buildings in close vicinity of the site, as well as the Scheduled Monument, and the Heritage Assessment that accompanies planning application 14/01470/OUT further assesses archaeological potential. The assessment on archaeology identifies that because of the potential for the site to contain buried archaeology of Roman date it is recommended that a geophysical survey be carried out, and potentially trial trenching. Both heritage assessments identify that development at the site options will affect the setting of the Listed Buildings at Winneycroft Farm, with the potential for minor, long-term indirect negative effects. However, given the sites' proximity to existing development and the motorway, and potential mitigation provided at the site level, this effect is identified as of no greater than slight significance. Development is not expected to significantly affect the setting of the Scheduled Monument due to existing dense hedgerows along the south west boundary largely preventing inter-visibility. It is recommended that these hedgerows are strengthened and retained in development – which will provide mitigation for negative effects.</p> <p>Overall it is considered that development at the site option has the potential for a residual minor long-term negative effect on the historic environment, and it is recommended that a detailed site specific policy is created to ensure that the appropriate mitigation for the historic environment is in place for development at this site.</p>	<p>-</p>

<p>8</p>	<p>SUSTAINABLE TRANSPORT</p> <p>Improve accessibility, maximise the use of sustainable modes of transport and reduce the need to travel by private car</p>	<p>The planning application 14/01063/OUT identifies that the site is located within 550m of the services and facilities along Matson Avenue, and has good public transport links locally and connecting with Gloucester City Centre, with the potential for minor long term positive effects.</p> <p>Given the size of the allocation it is likely there could be both short-term (during construction) and long-term negative effects on the existing road network with potential for congestion. The transport assessment accompanying planning application 14/01470/OUT considers the potential effects of both planning applications 14/01470/OUT and 14/01063/OUT coming forward at this site (which cover the whole of this site option), identifying the potential for negative impacts at the Painswick Road / Upton Hill / Corncroft Lane junction. Further mitigation will be required (and is available) to reduce potential negative effects. Mitigation is also provided through emerging policies SD5 and INF7 which seek to reduce the potential negative effects of increases in traffic, improve accessibility and reduce the need to travel. Overall it is considered that there is the potential for a residual minor negative effect with an element of uncertainty at this stage.</p> <p>It should be noted that planning application 14/01063/OUT further identified opportunities to expand and enhance existing bus routes, which could lead to positive effects for both new and existing communities.</p>	<p>+</p>	<p>- ?</p>
<p>9</p>	<p>WASTE AND POLLUTION</p> <p>Minimise pollution and waste to landfill</p>	<p>There are no historic landfill or pollution / waste related facilities or incidents within close vicinity of the site option. Given the scale of development proposed, there are likely to be negative effects as a result of increased waste production, both in the short-term during construction and residential waste in the longer term. Mitigation provided through Policy SD4 should ensure that development will not lead to any significant negative effects, particularly through the requirement for a waste minimisation statement in large development proposals.</p> <p>The northern edge of the site is adjacent residential development that may be sensitive to noise during construction. There is also the potential for negative effects for future residents at the site option as a result of noise from the adjacent M5. This could result in short-term minor negative effects. Mitigation is provided through Policies SD15 and INF2 to minimise potential negative effects.</p> <p>The site is not located within an AQMA, however, it is likely that there could be both short-term (during construction) and long-term negative effects on air quality through increased traffic as a result of development. Mitigation for potential increases in traffic is noted above in the topic of sustainable transport.</p>	<p>-</p>	

		Overall it is considered that there is the potential for residual minor long-term negative effects on waste and pollution as a result of development at the site option.	
10	THE ECONOMY Ensure the availability of employment land and premises to encourage inward investment and support growth of existing businesses	The site option is proposed for housing development and as such is unlikely to lead to any significant long term effects on the economy. Potential for a neutral effect.	0
11	CITY AND TOWN CENTRES Support the vitality and viability of city and town centres as retail, service, leisure and learning destinations	Although the site option is located on the town's edge, it is well located in relation to the main settlement with opportunities to improve public transport (see SA Objective 8). Therefore, the site option is expected to support the vitality and viability of Gloucester City Centre, with the potential for major long term positive effects.	++
12	SUSTAINABLE COMMUNITIES: EQUALITY Reduce inequalities in wellbeing and opportunity	The allocation could provide a chance to reduce inequalities in wellbeing and opportunity through providing housing opportunities and an improved transport network to create better access to services and facilities for all. At present, the effects are considered to be uncertain and may depend on negotiations at the development management level.	?
13	SUSTAINABLE COMMUNITIES: SAFETY Reduce crime and the fear of crime	The allocation could provide an opportunity to reduce crime as new housing could provide high quality and safe homes. Mitigation provided through emerging Policy SD5 should ensure that there will be no significant negative effects, potential for a residual neutral effect with an element of uncertainty at this stage.	0?
14	HEALTH Improve access to health facilities and promote healthy lifestyles	The allocation provides the opportunity for the creation of new high quality homes, which will have minor indirect positive effects on health. Furthermore, Policies INF5 and INF7 seek the appropriate provision or accessibility to open space, which may lead to positive effects on health, with the potential for major long-term effects if implemented successfully. This will depend in part on ensuring that Green	+

		Infrastructure provided as a result of development includes provisions for long term management.	
15	HOUSING Ensure everyone has access to a decent home that they can afford and meets their needs	The site option is likely to lead to major long term positive effects on housing through the provision of 620 new high quality homes.	++
16	GREEN SPACE Create, enhance, protect, connect and improve access to open spaces	The site option is greenfield arable land and development will ultimately remove this green space constituting a long term minor negative effect on green space. However, development at this large site is likely to deliver new green space, or provide significant contributions to enhancing existing green space, which could result in higher quality open spaces with the potential for minor long term positive effects.	+
17	EDUCATION AND SKILLS Improve access to education and life-long learning and enhance skills	The site option does not propose employment development or educational / training facilities and as such is unlikely to lead to any significant effects against this SA Objective. The effects remain uncertain at this stage but likely to be neutral.	O?
18	CULTURE AND TOURISM Protect and enhance cultural heritage and promote tourism	Given the nature of the site option, as housing development, effects on this SA Objective are considered to be neutral.	O

Summary of Key Negative and Positive Effects for Sustainable Development:

The site option is located on a parcel of land to the south of Gloucester, in between the existing urban area and the M5 motorway. The site option would support the SA Objectives of Biodiversity; Climate Change - Mitigation; Climate Change- Adaptation; Natural Environment and Resources - Quality; Sustainable Transport; City and Town Centres; Health; Housing and Green Space. There is the potential for minor negative effects on the SA Objective of Natural Environment and Resources - Use; Historic Environment; Sustainable Transport; and Waste and Pollution as a result of the large scale of development proposed.

Key Negative Effects:

- Potential for development to negatively affect the setting of designated heritage assets, and there is a need for further archaeological investigation
- Development will result in the loss of greenfield and Grade 3b agricultural land
- Development is likely to increase traffic on the highways network, and indirectly negatively affect air quality

Key Positive Effects:

- The provision of new, high quality housing and supporting infrastructure (including new green space) which is resilient to the effects of climate change
- Delivery of development within an accessible location, with the potential to extend existing public transport routes
- Potential for restoration of a BAP Priority Habitat

Mitigation, Recommendations and Residual Effects for Plan-making:

- It is recommended that a detailed site specific policy is created to ensure that appropriate mitigation for the historic environment is in place for development at this site option.

New Strategic Allocations & Other Strategic Options Reconsidered: HRA Screening

Proposed Modification: New Strategic Allocations	Potential Impacts of the Allocation	Potential for Likely Significant Effects (LSEs)?
<p>A10: Land at Winnycroft / Corncroft Lane</p> <ul style="list-style-type: none"> ■ 620 new dwellings 	<p>Site is located around 2.3km from the Cotswold Beechwoods SAC, and the M5 motorway is located between the development site and the SAC. The watercourse on site does not connect directly to SAC, however development should seek to minimize effect on water quality. The A46 runs within 200m of the SAC and development at the site may lead to increased traffic along this road and therefore increased atmospheric pollution affecting the integrity of the SAC. The direct road connections also have the potential to increase recreational disturbance at the site.</p> <p>Potential in-combination effects have been considered and are found not to be significant. Further information detailed in Appendix IV and Section 4 of the HRA (AA) Report (May 2014 SAPR114-119).</p> <p>Further assessment of recreational impacts was considered and reported in the HRA Addendum Report (May 2015 SAPR119a).</p>	<p>Yes but mitigated through previous recommendations & the development of the Statement of Cooperation with Natural England during the examination stages (SEB108C pages 119-124) and Policy SD10.</p>
<p>A11: Land West of Cheltenham</p> <ul style="list-style-type: none"> ■ 500 new dwellings ■ 40ha of employment land 	<p>The site is located over 7.5km from the closest European site (Cotswold Beechwoods SAC) and as such is unlikely to lead to any significant effects alone. There are no direct environmental pathways that are likely to lead to any significant effects.</p> <p>Potential in-combination effects have been considered and are found not to be significant. Further information detailed in Appendix IV and Section 4 of the HRA (AA) Report (May 2014 SAPR114-119).</p>	<p>No</p>
<p>Twigworth</p>	<p>The site is located over 7km from the Cotswolds Beechwoods SAC and as such is unlikely to lead to any significant effects alone. The site has two brooks (Hatherley and Horsbere Brooks) running through it that eventually flow into the River Severn a km away. The River Severn SAC/ SPA/ Ramsar and Walmore</p>	<p>No</p>

Proposed Modification: New Strategic Allocations	Potential Impacts of the Allocation	Potential for Likely Significant Effects (LSEs)?
	<p>Common SPA/Ramsar are downstream so there is the potential for impacts alone on water quality. The Brooks flowing through the site should be protected and retained and any proposal for development should ensure that impacts on water quality and resources are minimised.</p> <p>Potential in-combination effects have been considered and are found not to be significant. Further information detailed in Appendix IV and Section 4 of the HRA (AA) Report (May 2014 SAPR114-119).</p>	
Fiddington	<p>The site is located around 5.5km from the Dixton Wood SAC and as such is unlikely to lead to any significant effects alone. Tirlle Brook flows through the site and eventually joins the River Avon which flows into the River Severn. The River Severn SAC/ SPA/ Ramsar and Walmore Common SPA/Ramsar are downstream so there is the potential for impacts alone on water quality. The Brook flowing through the site should be protected and retained and any proposal for development should ensure that impacts on water quality and resources are minimised.</p>	No
Mitton	<p>The site is located around 5.5km from the Bredon Hill SAC and as such is unlikely to lead to any significant effects alone. Carrant Brook flows through the site and eventually flows into the River Avon, which flows into the River Severn. The River Severn SAC/ SPA/ Ramsar and Walmore Common SPA/Ramsar are downstream so there is the potential for impacts alone on water quality. The Brook flowing through the site should be protected and retained and any proposal for development should ensure that impacts on water quality and resources are minimised.</p>	No