

URS

The Cambridge Local Plan

Interim SA Report

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1 INTRODUCTION

1.1 Background

1.1.1 URS is commissioned to undertake the Sustainability Appraisal (SA) in support of the emerging Cambridge Local Plan. SA is a mechanism for considering the impacts of a draft plan approach, and alternatives to that approach, in terms of key sustainability issues, with a view to avoiding and mitigating adverse impacts and maximising the positives.

1.2 SA explained

‘SA Report focused’

1.2.1 It is a legal requirement that SA is undertaken in-line with the procedures prescribed by the EU Strategic Environmental Assessment (SEA) Directive.* A key requirement of the Directive is that a report (which we will call an ‘SA Report’) is published alongside the draft plan that *‘identifies, describes and evaluates’ the ‘likely significant environmental effects of implementing the plan or programme, and reasonable alternatives’.*

1.2.2 Annex 1 of the Directive prescribes the information that must be contained within the SA Report. Providing this information involves answering a logical sequence of nine ‘appraisal questions’ - see Table 1.1.

Table 1.1: Questions that must be answered (sequentially) within the SA Report

APPRAISAL QUESTION	CORRESPONDING REQUIREMENT OF THE SEA DIRECTIVE (THE REPORT MUST INCLUDE...)
What is the plan seeking to achieve?	“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes” (Annex I(a))
What’s the sustainability ‘context’?	“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes ” (Annex I(a)) “ the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation” (Annex I(e))
What’s the situation <u>now</u> ?	“ the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme” (Annex I(b)) “ the environmental characteristics of areas likely to be significantly affected ” (Annex I(c))
What would the situation be <u>without</u> the plan?	“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme ” (Annex I(b))
What are the key issues that should be a focus of the appraisal?	“ any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance , such as areas designated pursuant to Directives 79/409/EEC [Special Protection Areas under the Birds Directive] and 92/43/EEC” (Annex I(d)) (Note impacts on European sites will be specifically addressed through Habitats Regulations Assessment)

* Directive 2001/42/EC ‘The SEA Directive’

APPRAISAL QUESTION	CORRESPONDING REQUIREMENT OF THE SEA DIRECTIVE (THE REPORT MUST INCLUDE...)
How has the plan developed up to this point (including the influence of SA)?	“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h)) “the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation ” (Annex I(e))
How has the appraisal at this current stage been undertaken?	“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h))
What are the appraisal findings and recommendations at this current stage?	“ the likely significant effects on the environment , including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors” (Annex I(f)) “ the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme” (Annex I(g))
How might we monitor the plan’s impacts?	“a description of the measures envisaged concerning monitoring... ” (Annex I(i))

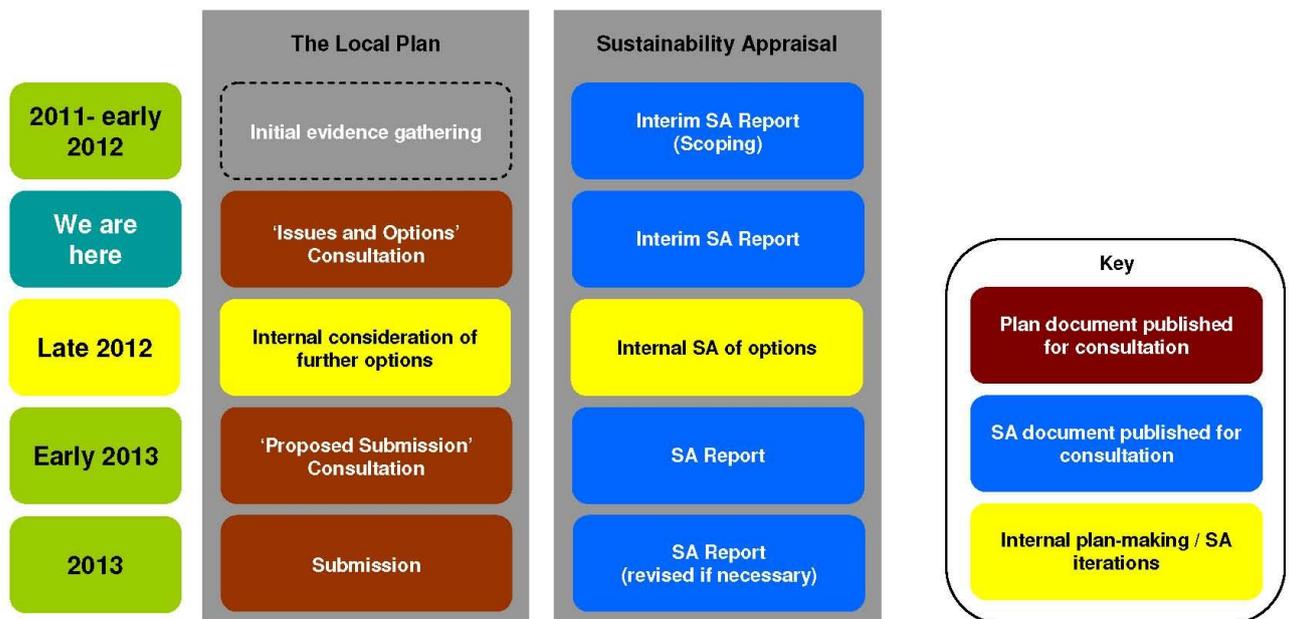
Iterative Approach

- 1.2.3 Given that the SA Report (published for consultation alongside the final draft version of the plan) must answer the question ‘*How has the plan developed up to this point (including the influence of SA)*’, it is understood that the plan must be developed alongside SA in an iterative fashion.
- 1.2.4 An iterative approach to plan-making / SA is being followed as part of preparing the Cambridge Local Plan, as described below:
- At the outset of plan-making, a report was published for consultation (and subsequently finalised) answering the first six appraisal questions (only). Answering these questions equates to establishing the ‘scope’ of the appraisal, and hence the report was known as the **SA Scoping Report**.
 - The Council is now looking to consult on an ‘Issues and Options’ document. For a range of issues the document presents either a) a suggested policy approach or option, where there are no other reasonable alternatives or b) alternative policy approaches (options). This **Interim SA Report** presents an appraisal of all options presented. This Interim SA Report is published for consultation alongside the plan document so that consultees can draw on findings to inform their representations on the plan.
 - Following consultation on the Issues and Options Report, the Council may identify further issues that necessitate a consideration of options. If this is the case, options will be subjected to sustainability appraisal. It is known that there will be a need to appraise options for site allocations and consultation on sites will take place in Autumn 2012. All site options will be appraised using the sites pro-forma which was developed in the SA Scoping Report to take into account sustainability issues. Any

further options SA will be driven by the legislative[†] need to ensure that SA has been applied to a 'reasonable' range of options for a 'reasonable' range of issues.

- Once the council plan-makers have had the opportunity to take on-board 1) implications of the representations made through the 'Issues and Options' consultation and 2) SA findings in relation to the options they will be in a position to prepare the final draft version of the Local Plan, known as the 'Proposed Submission Local Plan'. Once the Proposed Submission Local Plan has been prepared it will be subjected to SA, with findings set out within an **SA Report** (which must answer all nine appraisal questions - see Table 1.2 - in order to meet SEA Directive requirements). The Proposed Submission Local Plan will then be published for consultation, with the SA Report published alongside.
- Subsequent to consultation on the Proposed Submission Local Plan and SA Report, the Council will finalise the document for 'Submission' to Government. The SA Report will also be submitted, unless it is the case that significant changes are made to the Planning Strategy prior to Submission, in which case there **may be a need to revise the SA Report**.

Figure 1.1: The iterative plan-making / SA process



1.3 Structure of this Interim SA Report

1.3.1 Despite the fact that this is an 'Interim' SA Report, and does not *need* to provide the information required of the SA Report (by Annex 1 of the SEA Directive), it is helpful to also structure this report broadly according to the appraisal questions presented in Table 1.2. The structure of the report is summarised below.

[†] Directive 2001/42/EC 'The SEA Directive'

Table 1.2: Questions that must be answered (sequentially) within the SA Report

APPRAISAL QUESTION	CORRESPONDING CHAPTER OF THIS INTERIM SA REPORT
What is the plan seeking to achieve?	Chapter 2
What's the sustainability 'context'?	Chapter 3
What's the situation <u>now</u> ?	
What would the situation be <u>without</u> the plan?	
What are the key issues that should be a focus of the appraisal?	Chapter 4
How has the plan developed up to this point (including the influence of SA)?	Chapter 5
How has the appraisal at this current stage been undertaken?	Chapter 6
What are the appraisal findings and recommendations at this current stage?	Chapter 7

2 WHAT IS THE PLAN SEEKING TO ACHIEVE?

“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes”

(SEA Directive Annex I(a))

2.1 Introduction

2.1.1 The Local Plan will set out policies to guide the future development of Cambridge to 2031. It will also identify land for specific uses such as housing, employment, open space, Green Belt etc. It will be the key document used to determine planning applications for new development in Cambridge. The Local Plan will include strategic policies, site allocations and more specific development management policies to guide development. On adoption, it will replace the current Cambridge Local Plan (2006) which does not address some more current issues affecting the city. Policies need to be updated in order to provide both certainty and flexibility for future development proposals.

2.2 Objectives of the Local Plan

The proposed strategic objectives of the new Local Plan are set out in Chapter 2 of the Issues and Options Report, as follows:

1. To ensure that all new development contributes to the vision of Cambridge as an environmentally sustainable city, where it is easy for people to make the transition to lifestyles that result in lower carbon dioxide emissions.
2. To ensure that all new developments have a neutral impact on water, contribute to an overall flood risk reduction and help improve the quality of the River Cam and other water features in the city.
3. To ensure that all building development is of the highest quality standard, both in terms of its design and any impact upon its surroundings.
4. To ensure that all new development contributes to the positive management of change in the historic environment, protecting, enhancing and maintaining the unique qualities and character of the city for the future.
5. To protect and, where appropriate, enhance the character and quality of the appearance of the Cambridge skyline.
6. To protect and enhance the landscape setting of the city and the green corridors penetrating the urban area.
7. To protect and enhance the network of green spaces in the city.
8. To provide new housing to meet the needs of the city and contribute to meeting the needs of the Cambridge Sub-region.
9. To provide an appropriate mix of housing types, sizes and tenures to meet existing and future needs.
10. To assist the creation and maintenance of environmentally sustainable communities, where everyone feels included.
11. To promote and support economic growth in environmentally sustainable and accessible locations.
12. To recognise innovation and enable Cambridge's role as a world leader in higher education, research, and knowledge-based industries.

13. To ensure that Cambridge is a vibrant and thriving city with a varied range of shopping facilities in accessible locations to meet the needs of people living, working and studying in, or visiting, the city.
14. To maintain a high quality of life by maintaining and enhancing provision for open space, sports and recreation as well as ensuring that the city has a broad range of community facilities and leisure activities, including arts and cultural venues that serve Cambridge and the Sub-region.
15. To minimise the distance people need to travel, and to make walking and cycling the first choices of travel.
16. To make it easy for everyone to move around the city, particularly to be able to access jobs and essential services.
17. To ensure adequate provision of environmentally sustainable forms of infrastructure to support the demands of the city.
18. To promote a safe and healthy environment, minimising the impacts of development.

2.3 What's the plan trying to achieve?

2.3.1 The plan is trying to guide development in Cambridge in a sustainable way, balancing social, economic and environmental issues and trying to maximise benefits where possible and minimise any adverse impacts. The proposed vision of the Local Plan and for Cambridge in 2031 is set out in Chapter 2 of the Issues and Options Report as follows:

- Cambridge as a world class city that is also compact, dynamic and with a thriving historic City Centre;
- A city where new development helps to support the transition to a more sustainable low carbon city with a thriving economy;
- A city that embraces and encourages high quality, innovative design that contributes to the distinctiveness of the city;
- A city that encourages urban greening – protecting, enhancing and expanding the city's green spaces and tree cover not only for the benefit of residents but to protect and enhance biodiversity and help cool the city;
- A water sensitive city with an enhanced River Cam at its heart;
- A city that respects the past, protecting and enhancing the historic environment and reusing historic buildings positively and appropriately;
- New development that looks to build on the city's strengths such as its status as a world leader in the fields of higher education and research and the knowledge based economy, recognising the importance of the University of Cambridge, the Colleges and Anglia Ruskin University;
- A city where there is enough good quality housing of different types and sizes, with balanced and integrated communities of all household types and stages;
- An uncongested, accessible and clean city where travelling primarily by foot, bike or public transport is the norm;
- A city that enjoys an enviable quality of life, where its residents feel integrated into the life of the city and are able to influence the development of the city;

- A city that is successful, combining high levels of prosperity with socially mixed, affordable, healthy, safe and inclusive communities;
- A city served by successful, diverse and easily accessible local centres with appropriate shopping, services and community facilities for all needs and households.

3 SCOPE OF THE SA

“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes”

(SEA Directive Annex I(a))

“the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation”

(SEA Directive Annex I(e))

3.1 What’s the sustainability context?

Introduction

- 3.1.1 An important step when seeking to establish the appropriate ‘scope’ of a Sustainability Appraisal involves reviewing ‘sustainability context’ messages (e.g. objectives or issues) set out within relevant published plans, policies, strategies and initiatives (PPSIs). A review of the sustainability context is presented within the SA Scoping Report. Key messages from this review are summarised below.

Key messages from the context review

- 3.1.2 The Localism Act (2011) proposed a number of reforms to the planning system. In terms of plan making at a local level, no significant changes have been proposed to the Local Development Framework system. Given this, it is considered appropriate for the Council to move forward with reviewing the 2006 Cambridge Local Plan.
- 3.1.3 The National Planning Policy Framework (NPPF) was published on 27 March 2012.‡ The NPPF replaces Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs). Key elements of the NPPF are its ‘*presumption in favour of sustainable development*’, where sustainable development is defined by the five principles as set out in the UK Sustainable Development Strategy: living within the planet’s environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly. It also clearly states the need to recognise the ‘*intrinsic character and beauty of the countryside*’, whether designated or otherwise.

‡ The National Planning Policy Framework was published on 27 March 2012 [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/nppf>

3.2 What's the situation now?

“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”

(SEA Directive Annex I(b))

“the environmental characteristics of areas likely to be significantly affected”

(SEA Directive Annex I(c))

Introduction

3.2.1 An important step when seeking to establish the appropriate ‘scope’ of a Sustainability Appraisal involves reviewing ‘baseline conditions’ for a range of sustainability issues. Doing so helps to enable identification of those key sustainability issues that should be a particular focus of the appraisal, and also helps to provide ‘benchmarks’ for the appraisal of significant effects. A review of the sustainability baseline is presented within the SA Scoping Report. This section presents a summary. Please note that since the finalisation of the Scoping Report new data has come to light. While the majority of new data does not significantly affect the key findings of the appraisal one significant change relates to climate change. The target for reduction of CO₂ emissions in Cambridge which was previously 89% to 2050 is now 80% to 2050.

Key findings of the baseline review

- Looking forward to 2031, Cambridge’s population is expected to grow by 28%. The City’s age structure is also expected to change. The proportion of 25-39 year olds is expected to decrease while the 40-64, 65-74 and 75+ age groups will increase suggesting that overall Cambridge’s population will age.
- Cambridge is a prosperous City but it still has areas of deprivation, mainly to the east and north of the City with some areas identified within the 20% most deprived in the country. § Although many people living and working in Cambridge are amongst the most highly qualified in the country a significant proportion of economically active adults (16%) do not hold any qualifications at all.
- Housing affordability is an important issue for many groups. In particular, for key workers and those on lower incomes. In 2010 the ratio, or multiplier, of wages to average house prices in the City was around 9.2, and the ratio of lower quartile earnings against the cheapest housing available was around 9.5 in 2010, up from 8.2 in 2009. Many people who work in the city cannot afford to live there.** As a result large numbers of the employed population have to travel long distances from home to work, promoting unsustainable travel patterns with a high modal share of private car use, and placing increased pressure on the City’s transport infrastructure.
- In 2009 there were 7,362 applicants on the Council’s Housing Register for Social Housing, an increase of 18% from 2008. With regards to the acute need for more affordable houses in Cambridge, it has been identified that 1,910 more affordable houses are needed per year; an increase of 220 since 2010. 82% of the need for affordable housing is estimated as being for social rented and 18% for intermediate tenures.
- Cambridgeshire County Council proposed a figure of 14,000 dwellings to be built in Cambridge (700 dwellings per year) and 21,000 in South Cambridgeshire (1175

§ Source: <http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html> (accessed January 2012)

** Cambridgeshire County Council (2011) Cambridgeshire Local transport Plan 2011- 2026 [online] available at:

http://www.cambridgeshire.gov.uk/NR/rdoonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=LTP3PoliciesandStrategy.pdf

dwellingings per year) between 2011 and 2031. Previously housing development has been concentrated on sites within the existing areas of the City, however, several housing development sites on the fringes of the City have been released from the Green Belt by the 2006 Local Plan.

- Cambridge has four important sectors that contribute to the local economy - higher and further education and the related research institutes, high-tech business, retail and tourism. These four sectors have proved relatively resilient to the recession and are recognised to have significant growth potential. Given the strong performance of the Cambridge economy, there is a need to ensure sufficient land is available for employment and for housing a growing labour force.
- The levels of cycling within Cambridge are amongst the highest in Europe. A large proportion of those that work and live in Cambridge cycle (36%) or walk (19%). The high proportion of cycling in Cambridge is encouraged by the compact and flat nature of the urban environment as well as the high proportion of 'young and active' and 'financially constrained' individuals within the City, who are more likely to cycle than other groups.††
- Cambridgeshire, along with the majority of the south east and east of England, is categorised as an area of severe water stress. Cambridge has an average per capita water use of 151 litres per day which is significantly above the 80 litres per day recommended in the Water Cycle Strategies.
- The Strategic Flood Risk Assessment (SFRA) (2010) identifies the main areas of fluvial flooding in Cambridge as adjacent to the River Cam, Cherry Hinton/Coldham's Brook and East Cambridge Main Drain. The SFRA evaluates the current (2010) and future flood risk situations over a 105 year timeframe (2115), incorporating the impacts of climate change. The key message of the SFRA is that the majority of the rivers and watercourses in Cambridge currently pose a risk of flooding and that this risk will be exacerbated in the future due to climate change.
- The Council's adopted Climate Change Strategy and Action Plan sets the City a target to reduce carbon dioxide emissions by 89% by 2050. This has now been replaced by the national target of 80% by 2050. The previous target equated to a carbon footprint of 0.7 tonnes per person by 2050. In 2008 Cambridge City's total CO₂ emissions were 782 kilotonnes (kt) equating to per capita emissions of 6.6 tonnes. New data indicates the total carbon emissions for Cambridge including those from homes and businesses reduced by 9% between 2005 and 2009 (from 763,600 tonnes to 706,100 tonnes). Per capita emissions in this period reduced by 16% from 6.9 tonnes per person to 5.8 tonnes per person.
- Cambridge has an installed renewable energy capacity of 0.4 MW. More widely 7% of Cambridgeshire's energy demand is already met by renewable energy installations‡‡ which compares to about 6% nationally. Decarbonising Cambridge§§ (2010), a renewable and low carbon energy study completed for Cambridge City Council assessed the opportunities for low carbon and renewable energy projects. It identified potential opportunities for District Heating, Biomass, Waste to energy and Wind energy.
- The long history of settlement in Cambridge has resulted in a varied and rich townscape which contains a high concentration of historic assets. The varied character of Cambridge is evident in the large number of Conservation Areas (CA) that have been established to protect the distinctive character of different parts of the city.

†† Source: Steer Davies Gleave – Access to and around Greater Cambridge

‡‡ Cambridgeshire Renewables Infrastructure Framework – Baseline Data, Opportunities and Constraints (2012)

§§ Decarbonising Cambridge 2010 www.cambridge.gov.uk [accessed January 2012]

- Cambridge City Centre is the historic and commercial core of the City. This core is surrounded by colleges, university and residential buildings, beyond which lie the River Cam and a number of open spaces.

3.3 What would the situation be without the plan?

“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”

(SEA Directive Annex I(b))

Introduction

3.3.1 Just as it's important for the scope of SA to be informed by an understanding of current baseline conditions, it's also important to ensure that thought is given to how baseline conditions might 'evolve' in the future under the 'no plan' / 'business as usual' scenario. A review of the 'likely future baseline without the plan' is presented within the SA Scoping Report. This Chapter presents a summary.

Key findings of the 'likely future baseline without the plan' review

- Overall, Cambridge is a prosperous City but still experiences pockets of significant deprivation in terms of education, skills and training, health deprivation and disability, as well as crime in the east and north of the City. There is an identified trend of increasing deprivation that may continue if not effectively addressed.
- The trend towards an ageing population means that there may be an increased shortage of housing appropriate for elderly and disabled people.
- Although the Local Plan (2006) aims to protect and enhance existing and new community facilities it is likely they will face greater competition for more profitable uses, such as commerce or housing. The investment in social and community development infrastructure is important to the creation of sustainable communities and it will be important to ensure adequate provision is provided.
- The Local Plan (2006) contains a number of policies to protect and enhance the local economy and there is a built-in assumption within the Local Plan (2006) of the kinds of development which are suitable. However, in light of more recent evidence such as the Cambridge Cluster at 50 report,^{***} it is possible that the Local Plan (2006) would not capitalise fully on the strengths of the local economy.
- Key among the issues affecting Cambridge is the large-scale growth which is planned, with the associated pressure on the transport network and the environment, and the risks of increased congestion, carbon dioxide emissions and poorer air quality. While the Local Plan (2006) should reduce the need to travel, there will still be pressures on the transport network, which is already acknowledged to be 'seriously constrained' in many areas.
- The Water Cycle Strategy suggests that under a business as usual scenario the new housing development across Cambridge could increase the demand for water by 33% on 2006 levels by 2031. It is likely that without the Plan, new development will have an adverse effect on water resources and water quality. Increased demand for water will reduce the volume of water in groundwater aquifers and will have an adverse impact on progress towards achieving good status by 2027 as required by Water Framework Directive.
- The Local Plan (2006) contained a policy on development and flooding but this was not 'saved' as it repeated national guidance in PPS25. The NPPF is less detailed in

^{***} SWQ (2011) Cambridge Cluster at 50, The Cambridge Economy: retrospect and prospect

its regard to flooding than PPS25 and there will be a need for more detailed flooding (both fluvial and pluvial) and SuDS policies in the Plan. In addition, the Local Plan (2006) does not give due consideration to the impacts of climate change, which is predicted to significantly increase flood risk by 2050.

- Without the Plan, it is likely that emissions from the transport sector will continue to increase in Cambridge. Transport is the only source of CO₂ emissions that has continued to rise since 1990 and it is likely to cause a continued challenge in Cambridge due to planned new development.
- The designated Conservation Areas will continue to help protect the character of these areas and ensure development is appropriate and strictly controlled. Although the Local Plan (2006) provides good protection to these areas there may be wider opportunities to better protect the special character and landscape features of Cambridge, particularly in light of planned new development in the urban extensions.
- Without the Plan the protection and enhancement of biodiversity may not be pursued at the strategic level. While sites of local nature conservation importance, open space and features of nature conservation will be protected, the opportunity to contribute to a healthy environment through reconnecting fragmented habitats as recommended in the Lawton Review may not be maximised
- The City Centre benefits from excellent open space provision and excellent civic environment but the number of visitors and a growing population will increase pressures on maintaining the high quality public realm.

3.4 What are the key issues that should be a focus of the appraisal?

“any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC [Special Protection Areas under the Birds Directive] and 92/43/EEC”

(SEA Directive Annex I(d))

Introduction

- 3.4.1 Drawing on the review of the sustainability context and baseline, the SA Scoping Report was able to identify a range of sustainability issues. The issues have been drawn-on and used as a methodological ‘framework’ for structuring this appraisal presented within the subsequent chapter *‘What are the appraisal findings and recommendations at this current stage’*.

Key sustainability issues

- Communities and Well Being
 - arrest the trend in increased deprivation particularly within wards to the north and east of Cambridge
 - improve the health and well-being of Cambridge residents and reduce inequalities in health particularly in the north and east of Cambridge
 - reduce inequalities in the educational achievement level of economically active adults and develop the opportunities for everyone to acquire the skills needed to find and remain in work
 - capitalise on the ethnic diversity of the city and its contribution to vibrant and inclusive communities

- protect and enhance community, leisure and open space provision, particularly in wards anticipated to experience significant population growth including Trumpington, Castle and Abbey
- ensure the timely provision of primary and secondary education in the locations where it is needed
- increase delivery of affordable and intermediate housing, in particular one and two bedroom homes
- ensure that the design and size of new homes meet the needs of the existing and future population, including the elderly, disabled people and those in poor health
- improve air quality in and around the Cambridge City Centre AQMA and along routes to the City including the A14
- Economy
 - maintain and capitalise on Cambridge's position as one of the UK's most competitive cities
 - address pockets of income and employment deprivation particularly in Abbey Ward and Kings Hedges
 - capitalise on the value that language schools/specialist tutorial colleges contribute to the local economy, but balance this against the increased impact this may have on the housing market
 - ensure provision of appropriate office space for small and growing high tech businesses and research sectors
 - consider the need for high-tech headquarters and high-tech manufacturing
 - consider whether and how to address the on-going loss of industrial floorspace
 - encourage more sustainable growth of tourism which recognises the pressure it places on the City's transport infrastructure and accommodation need
 - ensure the continued vitality and viability of the City Centre and safeguard the diversity of independent shops in areas such as along Mill Road
 - protect local shopping provision in District and Local Centres which provide for people's everyday needs
 - ensure adequate provision of convenience shopping in the north west of Cambridge
- Transport
 - build on the high modal share of cycling in the city centre and encourage cycling for journeys over one mile
 - reduce the use of the private car and ensure greater access to frequent public transport
 - capitalise on the opportunity of new development to discourage private car use and promote the use of more sustainable forms of transport
- Water
 - ensure developments implement the highest standards of water efficiency and place no additional pressure on water scarcity in the region
 - improve the water quality of Cambridge's water courses in line with the Water Framework Directive requirements
 - ensure new development takes sewerage infrastructure into account

- Flood risk including climate change adaptation
 - account for the potential environmental, economic and social cost of flooding for all development proposals
 - protect and enhance existing natural flood risk management infrastructure and ensure all development incorporates sustainable drainage systems to minimise surface water flood risk
 - ensure that new and existing communities are capable of adapting to climate change with consideration given to the role of green and blue infrastructure as well as the layout and massing of new developments
- Climate change mitigation and renewable energy
 - reduce transport emissions by encouraging cycling and promoting infrastructure for zero emissions vehicles
 - reduce carbon emissions from all aspects of new developments and ensure development meets the highest standards in low carbon design
 - account for the whole life carbon cost of new development and transport infrastructure
 - ensure greater deployment of energy efficiency and renewable energy technologies
- Landscape, townscape and cultural heritage
 - ensure the protection and enhancement of the historic environment through appropriate design and scale of new development
 - actively promote the character and distinctiveness of the Conservation Areas
 - ensure the scale of new development is sensitive to the existing key landmark buildings and low lying topography of the City
- Biodiversity and green Infrastructure
 - maintain and build on the success of positive conservation management on local wildlife sites and SSSIs
 - maintain and improve connectivity between existing green infrastructure in order to provide improved habitats for biodiversity and ensure no further fragmentation of key habitats as a result of new or infill development
 - capitalise on the opportunity for green infrastructure to help Cambridge adapt to the threats posed by climate change (particularly flooding), and to improve water quality
 - ensure new development does not impact on biodiversity including no further loss of biodiversity rich farmland to development
- City Centre
 - ensure the centre capitalises on the opportunities from growing business sectors
 - maintain and improve the quality of the Centre as a place to live, work and spend leisure time, while ensuring a safe and welcoming environment
 - ensure opportunities to reduce energy demand through renewable and low carbon technologies are maximised
- North Cambridge
 - address deprivation across quite expansive areas of the City's northern and north-eastern extents
 - address flood risk issues

- capitalise on opportunities to encourage use of public transport and walking/cycling (including to access the Cambridge Science Park)
- increase access to high quality open space, particularly within Arbury
- support the achievement of identified priorities within the Chesterton / Ferry Lane and De Freville Conservation Areas
- encourage high quality design and improve the quality of the public realm within some areas
- develop a co-ordinated policy with South Cambridgeshire District Council for the development of Northern Fringe East
- South Cambridge
 - Address flood risk issues
 - Consider the potential to address deprivation associated with areas to the East
 - Work with developers to facilitate the achievement of successful new communities within the urban extensions
 - Maintain and enhance open spaces and green space within the urban area, and the Green Belt setting
 - Support the achievement of identified priorities within Conservation Areas
 - Capitalise on opportunities to encourage use of public transport and walking/cycling
- East Cambridge
 - Maintain and enhance open spaces and green space within the urban area, and the Green Belt setting
 - Address deprivation issues across quite expansive areas
 - Maintain the character of particular neighbourhoods
 - Capitalise on opportunities to encourage use of public transport and walking/cycling
- West Cambridge
 - Maintain and enhance open spaces and green space within the urban area, and the Green Belt setting
 - Maintain the exceptional character of the built environment and address priorities identified within the designated Conservation Areas
 - Capitalise on opportunities to encourage use of public transport and walking/cycling

4 HOW HAS THE PLAN DEVELOPED UP TO THIS POINT?

“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information”

(SEA Directive Annex I(h))

*“the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and **the way those objectives and any environmental considerations have been taken into account during its preparation**”*

(SEA Directive Annex I(e))

4.1 Introduction

4.1.1 As described within Chapter 1, an iterative approach to plan-making / SA is being followed as part of preparing the Cambridge Local Plan. This Chapter once again presents the iterative steps that are being taken, and also provides detail on the steps undertaken to date.

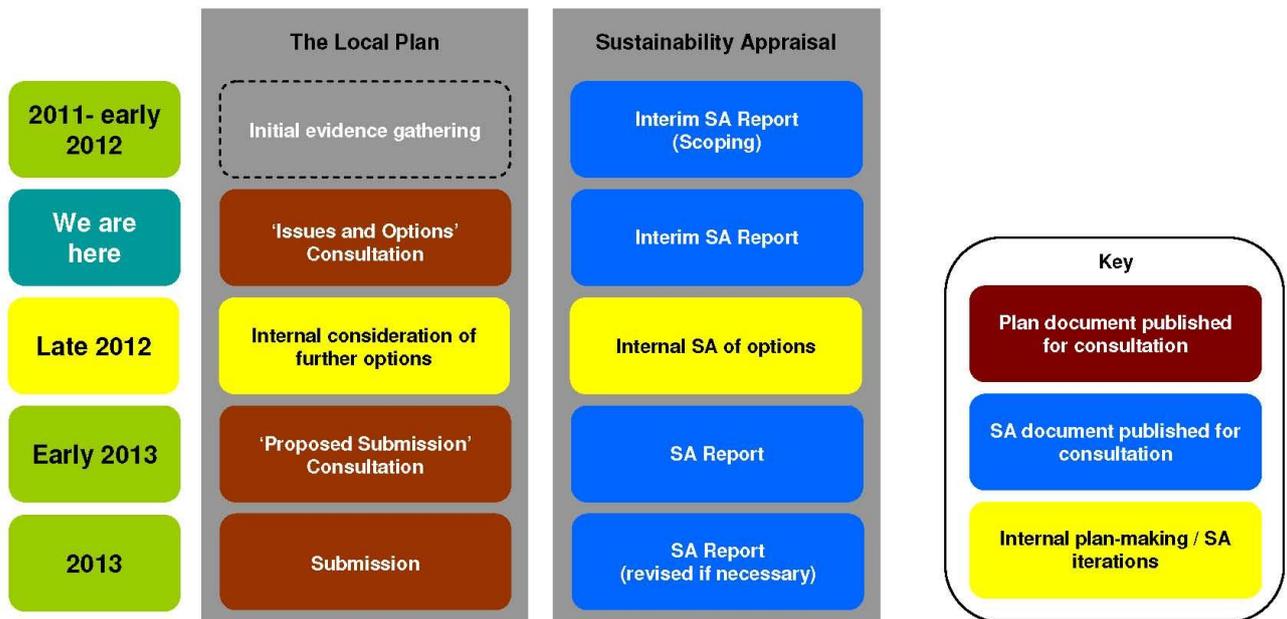
4.2 The iterative plan-making / SA process

4.2.1 The iterative plan-making SA process is summarised below:

- At the outset of plan-making, a report was published for consultation (and subsequently finalised) answering the first six appraisal questions (only). Answering these questions equates to establishing the ‘scope’ of the appraisal, and hence the report was known as the **SA Scoping Report**.
- The Council is now looking to consult on an ‘Issues and Options’ document. For a range of issues the document presents either a) a suggested policy approach or option, where there are no other reasonable alternatives or b) alternative policy approaches (options). This **Interim SA Report** presents an appraisal of all options presented. This Interim SA Report is published for consultation alongside the plan document so that consultees can draw on findings to inform their representations on the plan.
- Following consultation on the Issues and Options Report, the Council may identify further issues that necessitate a consideration of options. If this is the case, options will be subjected to sustainability appraisal. It is known that there will be a need to appraise options for site allocations and consultation on sites will take place in Autumn 2012. All site options will be appraised using the sites pro-forma which was developed in the SA Scoping Report to take into account sustainability issues. Any further options SA will be driven by the legislative^{†††} need to ensure that SA has been applied to a ‘reasonable’ range of options for a ‘reasonable’ range of issues.
- Once the council plan-makers have had the opportunity to take on-board 1) implications of the representations made through the ‘Issues and Options’ consultation and 2) SA findings in relation to the options they will be in a position to prepare the final draft version of the Local Plan, known as the ‘Proposed Submission Local Plan’. Once the Proposed Submission Local Plan has been prepared it will be subjected to SA, with findings set out within an **SA Report** (which must answer all nine appraisal questions - see Table 1.2 - in order to meet SEA Directive requirements). The Proposed Submission Local Plan will then be published for consultation, with the SA Report published alongside.
- Subsequent to consultation on the Proposed Submission Local Plan and SA Report, the Council will finalise the document for ‘Submission’ to Government. The SA Report will also be submitted, unless it is the case that significant changes are made to the Planning Strategy prior to Submission, in which case there **may be a need to revise the SA Report**.

^{†††} Directive 2001/42/EC ‘The SEA Directive’

Figure 4.1: The iterative plan-making / SA process



4.3 How were options identified?

- 4.3.1 The 'Issues and Options' consultation document presents, for a range of issues, either a) a suggested option (or policy approach) or b) alternative options (policy approaches). The issues and options are separated into a series of chapters based upon topic areas as follows:
- Chapter 2 sets out a possible vision for Cambridge to 2031 and a number of strategic objectives.
 - Chapter 3 is concerned with the spatial strategy and focuses on the approach to housing and employment provision.
 - Chapter 4 sets out a number of other strategic spatial options, dealing with matters such as the Green Belt and the City Centre.
 - Chapter 5 deals with potential opportunity areas, which are areas in the city which have been identified as having the potential to be considered for future improvement or development over the plan period.
 - Chapter 6 is concerned with sustainable development, climate change, water resources and flooding.
 - Chapter 7 deals with Delivering High Quality Places in Cambridge and is concerned with design, landscape, and public realm.
 - Chapter 8 sets out options to protect and enhance both the historic built environment and the natural environment.
 - Chapter 9 is concerned with delivering high quality housing.
 - Chapter 10 deals with building a strong and competitive economy, including sections on employment, retail, higher and further education and tourism.
 - Chapter 11 is concerned with creating successful communities, including the provision of open space, leisure facilities and community facilities.

- Chapter 12 deals with promoting and delivering sustainable transport and other kinds of infrastructure, and the mechanisms for doing so.

4.3.2 Within these chapters the issues and options presented were identified by consideration of:

- the requirements of the National Planning Policy Framework (NPPF) and other relevant legislation
- the significant evidence base which has been compiled. Appendix A of the Issues and Options Report sets out the documents in this evidence base comments collected from a series of workshops which were held with Councillors, stakeholders, developers, and residents associations. Also, one to one meetings were offered and a number were held with various organisations in order to help understand future needs and concerns.

4.3.3 In some cases only one option is presented, as it was considered by the City Council that there were no other reasonable options. For example, the NPPF is clear that the Green Belt should be protected and so to not include an option on this issue would not have been reasonable. In other cases more than one option is presented for consideration during the consultation period. An explanation has been provided in the Issues and Options Report if it has been considered that there is only one reasonable option, and where there is more than one option the advantages and disadvantages of each has been drawn out.

4.3.4 With regards to the spatial strategy, different options are presented for the potential level of housing and employment growth. The Council is responsible for looking forward and setting the level of housing and employment provision needed in Cambridge over the next 20 years. This task is a hugely important one and has the potential to affect the lives of all who live and work in the city now and in future. The 'issues and options' report identifies the key questions and issues that lie ahead, and the possible ways to address those challenges. The Council wants to facilitate the fullest engagement of communities from the outset of this process.

4.3.5 One of the key considerations is how many new homes and jobs should be provided to 2031 and where they should go? As the preparation of the Local Plan continues, everything will be brought together in order to ensure that the right approach is developed and agreed. This means that whilst the provision of new homes and jobs is important, a balance needs to be achieved with other objectives. Cambridge is a special place and the future shape and function of the city needs careful consideration. There are constraints on the amount of development that can take place within Cambridge, given its constrained area, historic environment, and limited infrastructure as the importance of protecting the Green belt and enhancing the unique setting of Cambridge. There will be difficult choices to be made but these are decisions that will need to be made locally, and the SA can help to inform these decisions.

4.3.6 Within Chapter 3 of the Issues and Options Report, which deals with the spatial strategy, different options are presented for the potential level of housing and employment growth. One of the housing options includes the development of land just within the urban area of Cambridge, however the others would require development within the Green Belt at the edge of Cambridge. As a result ten broad locations have been identified at the edge of Cambridge. One of these falls entirely within the City boundary, three fall outside the boundary in the neighbouring authority South Cambridgeshire District Council and the others straddle the boundary. The locations are considered to be reasonable alternatives as they cover all of the remaining Green Belt land within the City. Following consultation on the Issues and Options Report, if any of these broad locations was considered to be suitable for development, further consultation would be carried out on the potential site boundaries as part of the sites consultation later in 2012.

- 4.3.7 For all the issues for which options are presented, it is thought that the range of options is reasonable, in the sense that they represent significantly different approaches, but all could have the potential to support delivery of the established Local Plan vision and objectives.

5 HOW HAS THE APPRAISAL AT THIS CURRENT STAGE BEEN UNDERTAKEN?

“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information”

(SEA Directive Annex I(h))

5.1 Approach to appraisal

5.1.1 For each of the issues considered within the plan consultation, Chapter 6 of this document presents an appraisal of either a) the proposed policy approach; or b) the alternative approaches presented. Where the potential for a significant effect is highlighted^{†††}, recommendations are made with a view to ensuring such effects are avoided or mitigated (i.e. recommendations are made regarding a particular approach that the Council might wish to take forward).

5.2 Difficulties encountered

5.2.1 The key difficulty is that associated with establishing a causal link between a proposed policy approach, or a policy approach ‘option’, and effects to the sustainability baseline. Often, there is considerable uncertainty, given that the precise way in which the policy approach will be implemented ‘on the ground’ is unknown. Where this uncertainty exists, it is helpful to discuss effects in more general terms - i.e. in terms of particular sustainability issues or broad sustainability themes / the sustainability context. In other instances, it may be appropriate to highlight the potential for any significant effects on the sustainability baseline, along with the uncertainties involved.

5.2.2 When considering which potential effects to highlight (along with a discussion of uncertainty) or not to highlight, a foremost consideration is that the aim of SA is to have a focused discussion regarding those effects that are most likely and significant (and how they should be avoided or mitigated), rather than a potentially endless discussion relating to all of possible plan effects. Ultimately, it is a matter of professional judgement as to those effects that are highlighted and those that are not. This approach is justified by the SEA Directive (i.e. through its reference to ‘technical deficiencies or lack of know-how’) as well as Government Guidance, which states that: *‘You are only required to assess the likely significant effects of the plan, not all possible effects... Ultimately, the significance of an effect is a matter of judgment...’*^{§§§}

^{†††} Significant effects are identified (‘evaluated’) taking account of the sustainability context / baseline and key issues established through scoping. As part of this, consideration has been given to the potential for effects that are direct / indirect, the potential for the significance of effects to vary according to timescale, duration and reversibility and also the potential for effects to be significant because they will impact cumulatively with the effects of other planned activities.

^{§§§} The plan-making manual [online] at: <http://www.pas.gov.uk/pas/core/page.do?pagelid=156210> (accessed 04/12)

6 WHAT ARE THE APPRAISAL FINDINGS / RECOMMENDATIONS AT THIS CURRENT STAGE?

“the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”
 (SEA Directive Annex I(f))

“the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme”
 (SEA Directive Annex I(g))

6.1 Introduction

- 6.1.1 The appraisal has been structured in the following way:
- Appraisal of the individual Options
 - Appraisal of all Options and their likely effects on each Sustainability Topic (as identified in the Scoping Report and set out in paragraph 3.4.1 of this document).
- 6.1.2 The appraisal of the individual options is presented in the tables in Section 6.2. The appraisal of each option was undertaken against the sustainability framework. To aid understanding of the likely effect of the Option as it relates to each sustainability topic, the following symbols have been used.

↗	The Option is likely to result in a positive outcome for the sustainability topic
↔	The Option is unlikely to effect the sustainability topic
↘	The Option is likely to result in a negative outcome for the sustainability topic
?	The effect of the Option on the sustainability topic is uncertain

- 6.1.3 Section 6.3 sets out a higher level appraisal of the key issues and options as they relate to each of the sustainability topics. This section provides an insight into potential cumulative impacts.
- 6.1.4 Section 6.4 presents the summary of the whole appraisal and outlines key recommendations.

6.2 Individual Option Appraisal

Vision

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
01	Cambridge 2031 Vision	↗	↗	↗	?	↗	↗	↗	↗	↗	↗	↗	↗	↗	<p>This Option should result in significant positive effects across the majority of sustainability topics. The Option's strong support for an environmentally sustainable and successful economy, which builds on the City's strengths in the fields of higher education and research and the knowledge based economy should help address the key economic issue to maintain and capitalise on Cambridge's position as one of the UK's most competitive cities. The Option's vision to become a low carbon city and recognition of the need to deliver a city where sustainable transport choices are the norm will also contribute significantly to improving the local environment and making Cambridge a destination of choice to live, work and visit.</p> <p>This Option should ensure the protection and enhancement of the historic environment and promote the character and distinctiveness of the conservation areas, which are two key landscape, townscape and cultural heritage sustainability issues. The option will thus contribute to maintaining the attractiveness of Cambridge as a tourist destination.</p> <p>The Option should help address identified sustainability issues relating to deprivation and inequality across the whole of the city. Its focus on socially mixed and inclusive communities also recognises the value that the City's ethnic diversity contributes to the City's vibrancy and cosmopolitan feel.</p> <p>The extent to which this Option fully addresses water scarcity in the region is unclear, particularly given the anticipated significant growth in housing and employment provision. Furthermore, the extent to which the Option recognises the threat posed by climate change and the need to both mitigate and adapt to its effects could be more clearly stated.</p>

Spatial Strategy

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
02	12,700 new homes to 2031 – ‘urban growth’	↓	↓	↓	↔	↔	↔	↗	↗	?	?	?	?	?	<p>This Option represents the lowest level of development being considered by the Council. Development would be focussed within the existing urban boundaries, with the majority of housing development (7,467 dwellings of an identified 10,612) occurring in urban extensions. The relatively modest level of development proposed in this Option, above the existing commitments (2,060 dwellings), has a number of implications.</p> <p>The most significant negative implication of this Option is that it does not address the identified need for more affordable housing in Cambridge. There is an identified need for a further 2,140 more affordable houses for the first five years of the plan period and 592 houses for the following 15 years in Cambridge. Assuming that new developments will include at least 40% affordable housing, this Option would deliver a maximum of 5,080 affordable houses or the equivalent of 267 affordable houses per annum between 2012 and 2031. This is significantly below the identified need. It is likely that this Option will lead to: 1) the continuation of people living outside Cambridge and commuting in, which will result in high levels of unsustainable travel patterns and congestion. 2) a continuation in high house prices due to demand being greater than supply, 3) continued and exacerbated pockets of deprivation, and 4) increased use of water (unless this is balanced against water efficiency improvements in the existing housing stock)</p> <p>On balance this Option has the least positive impact on the economy of Cambridge. The modest scale of development proposed is unlikely to support the economic vision of Cambridge. The Option will mean that a growing number of people cannot live and work in Cambridge due to high house prices and scarcity of supply. This could lead to people choosing other centres of employment and</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>therefore hinder the competitiveness of Cambridge and the vitality and viability of the city.</p> <p>A significant positive impact of this Option is the maintenance of the Green Belt and the biodiversity and wildlife it supports. Furthermore, this Option will have a significant positive impact on landscape, townscape and cultural heritage through preserving the distinctive views and approaches to the historic centre and being sensitive to the existing key buildings. In comparison with the other Options it will help maintain the distinctive setting of Cambridge within the wider environment.</p> <p>It may also have a beneficial impact in comparison with the other Options in terms of climate change adaptation and flood risk. This is because other Options propose to extend the urban boundaries and will therefore lead to an increase in impermeable surfaces, which could lead to an increase in flood risk. Furthermore, increasing the area of dark surfaces will increase the urban heat island effect. In comparison this Option is unlikely to have an adverse impact on surface water flood risk or the urban heat island effect.</p> <p>Since the Option represents the minimum level of development it has both negative and positive impacts on the different areas of Cambridge. While it is unlikely to have a significant impact on levels of deprivation, especially in the East and North of Cambridge, it will act to safeguard open space and will have less of an impact on conservation areas as other Options.</p>
03	Up to 14,000 new homes to 2031 – ‘the current development strategy’	↔	↔	?	↔	↔	↔	↓	↓	?	?	?	?	?	<p>Overall this represents a more balanced approach to development than Option 2. The identified need for greater housing, including affordable housing, is met to a greater extent, while new development on the Green Belt is minimal.</p> <p>However, despite the increased provision of housing under this Option, there will still be a significant shortfall of affordable houses, which will impact on the levels of deprivation within Cambridge.</p> <p>In terms of the economy, this level of housing is likely to have a more neutral impact. It will enable a greater number of people to live and work within Cambridge and therefore support the vitality of the</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>City, but a significant number of people will not be able to live and work within Cambridge and this could impact on its competitiveness.</p> <p>Given that this Option requires the release of land from the Green Belt, the impact on the landscape and townscape and biodiversity is assessed to be negative. However, the release of Green Belt land is less substantial than for Options 4 and 5 and the associated impacts on landscape, townscape and biodiversity can be assumed to be commensurately less.</p> <p>The impact on the spatial areas of Cambridge is not certain. Much of the impact will depend on where the release of the land from the Green Belt will be. Given the significant pockets of deprivation in North and Eastern Cambridge the benefits of greater numbers of housing here would potentially be most beneficial. However, wherever the development takes place, it is likely that there will be negative implications on biodiversity and landscape.</p>
04	Up to 21,000 new homes to 2031 – ‘enhanced levels of urban and Green Belt growth’	↗	↗	↗	↔	↘	↔	↘	↘	↔	?	?	?	?	<p>This Option would have significant positive impacts on the overall provision of housing including affordable housing. As such it is likely to have a range of co-benefits, such as a reduction in levels of deprivation.</p> <p>This Option also supports the economic vision for Cambridge as it would provide additional employment opportunities on the edge of Cambridge as part of mixed-use developments and enable more people to live and work within Cambridge.</p> <p>The Option is also likely to have a positive impact on reducing pressure on the existing transport infrastructure due to the greater number of people who are able to live in close proximity to centres of employment. However, the transport network within Cambridge is already congested and there would also need to be significant improvements to the transport network. Assuming that the new developments are required to put in place infrastructure for sustainable travel, this could also reduce levels of air quality pollution and impact positively on climate change objectives.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>There are a number of significant negative impacts that relate to the release of Green Belt land for development. The setting of Cambridge within the wider landscape will be adversely affected and the new developments will detract from the approaches and views of the historic core of Cambridge. It is likely that this Option will also have significant adverse impacts on biodiversity and green infrastructure.</p> <p>It is also likely that this Option will lead to greater surface water flood risk due to the replacement of Green Belt land (and potentially parts of the functional flood plain) with less permeable surfaces. However, it is expected that other Options will address this threat through requiring integrated water management and flood risk reduction. This replacement might also impact adversely on the urban heat island effect.</p> <p>In comparison to Option 5, this option involves building on all the broad locations but at a lower level of intensity and density. This has its own implications in terms of sustainability. On the one hand it means that opportunities for social housing and to support the economy are not maximised and the integrity of the Green Belt is still compromised but on the other hand it is likely that a greater area of open space will be included in the development plans and the impact of the new developments on the setting of Cambridge and on cultural heritage can be more carefully managed.</p>
05	Up to 25,000 new homes to 2031 - 'significantly increased levels of urban and Green Belt growth'	↗	↗	↗	?	↘	?	↘	↘	↔	?	?	?	?	<p>This Option entails developing all Green Belt sites at high intensities.</p> <p>The sustainability of this Option is very similar to Option 4. However, the negative and positive impacts of Option 4 are further exaggerated.</p> <p>The positive impact in terms of the provision of housing including affordable housing, the economy and transport are enhanced while the negative impacts associated with the replacement of Green Belt land, the loss of biodiversity, and flood risk are exacerbated.</p> <p>The Option would significantly undermine the purpose of the Green Belt and would compromise the</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>compact nature of the City.</p> <p>This Option entails developing all the broad locations and at a high intensity. This has positive implications in terms of maximising opportunities to provide affordable housing and to support the economy. However, it is also likely that the visual impact will be greater and it may have an even greater adverse impact on the historic setting of Cambridge.</p>
	<p>The decision as to the right scale of housing development for Cambridge is critical given the significant shortfall in the number of affordable houses, high house prices, the pockets of deprivation within Cambridge and the relatively high number of people who live outside and commute into Cambridge often by private car. However, Cambridge is constrained in terms of the scale of development that is feasible without significantly impacting on the setting of Cambridge, compromising the Green Belt, exacerbating flood risk and adversely impacting on biodiversity. Options 03 and 04 attempt to balance these conflicting priorities and therefore perform slightly better in terms of sustainability compared to either the maximum or minimum level of development. However, it will be important, at a project level, to ensure that the negative impacts associated with development including the transport, biodiversity and green infrastructure and the landscape and townscape in particular are addressed. It will be important to ensure appropriate levels of hard and social infrastructure are brought forward to support development and not adversely effect existing communities.</p>														

Level of Employment Provision

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
06	10,000 new jobs to 2031	✓	✓	?	↔	↔	↔	↔	↔	?	?	?	?	?	<p>This Option is based on the delivery of a lower number of jobs than are expected to develop in Cambridge to 2031. As such it has a number of negative impacts. Significantly, it will not help to address levels of deprivation in Cambridge and will result in a proportion of the population remaining in long term unemployment and might lead to increasing levels of unemployment in Cambridge, which is recognised to have a range of negative impacts both for those who are unemployed and for the wider community.</p> <p>This Option will not help to address income and employment deprivation and may increase the scale and levels of deprivation. It will also impact adversely on Cambridge's position as one of the UK's most competitive cities.</p> <p>In terms of positive impacts, it is possible that a lower level of jobs than predicted may lead to fewer people commuting into Cambridge and therefore might indirectly benefit transport objectives. However, there could be an increase in the number of people commuting out of Cambridge to new centres of employment and this would increase the pressure on existing transport infrastructure. The overall impact is therefore uncertain.</p> <p>Another possible positive impact is the fact that this low target will reduce pressure on land and may therefore have some benefits in terms of landscape, townscape and cultural heritage. However, this is currently uncertain.</p>
07	15,000 new jobs to 2031	?	↔	?	↔	↔	↔	↔	↔	?	?	?	?	?	<p>This Option represents the 'business as usual' option. The target for new jobs is slightly above the average growth in jobs in Cambridge over the last 20 years. It does not therefore represent a significant divergence from the status quo. As such, this Option is unlikely to significantly reduce levels of employment deprivation in Cambridge. Depending on the type of employment generated by this Option the impact on inequality will vary. Particularly in areas of high unemployment, high benefit</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>dependency and other types of deprivation, which are clustered in the North and East of the city, the type of employment land should support jobs suitable to these residents. However, employment space for the high tech sector and higher education sector should also be supported.</p> <p>While the generation of employment is positive for the economy, it is unlikely that this Option will capitalise on the strong opportunity for growth within Cambridge. Furthermore, it is possible that the limited employment land will constrain Cambridge's economic potential and hinder Cambridge's leading position in higher education and the high-tech sector.</p> <p>Impacts on transport are uncertain and depend on the scale of housing development. If sufficient housing is provided within the urban boundaries, then this Option can contribute to sustainable travel patterns, however if it is not it will exacerbate congestion and unsustainable travel patterns.</p> <p>Impacts on the spatial areas of Cambridge will depend on where the employment land is brought forward.</p>
08	20,000 new jobs to 2031	?	↗	↘	↔	↔	↔	↔	↔	?	?	?	?	?	<p>In terms of communities and wellbeing, the sustainability of Option 8 depends on the type of employment which is supported through the Local Plan. While, the provision of employment land for high-tech uses and higher-education would be likely to generate greater Gross Value Added (GVA) for the local and national economy, it may not provide greater access to employment for those within deprived communities. There is also the issue that if employment space is overly provided for there will be a knock-on effect on communities with alternative uses for that land (such as affordable housing) restricted. However, If a balanced approach is pursued the impact could be significantly beneficial for communities and well being.</p> <p>The Option will have a positive impact on the local and national economy and will capitalise on Cambridge's position as one of the UK's most competitive cities and addressing income and</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>employment deprivation in parts of Cambridge. The scale of new employment supported by this Option should be sufficient to meet all the identified needs in terms of the types of employment (office space, industrial space, high-tech and high-tech manufacturing space).</p> <p>The impact on transport will depend on the location of the employees. If the policy is combined with an ambitious housing target, the cumulative impact could be low or even beneficial. However, it is likely that this increase in employment within Cambridge will lead to greater number of people commuting into Cambridge and will therefore lead to an increase in unsustainable travel and congestion.</p> <p>Depending on the type of employment land created the impacts on the other sustainability objectives and spatial areas will vary. These should be carefully assessed later in the plan process and at the project level.</p>
	<p>It is difficult to assess and compare the sustainability of these Options without knowledge of the type of employment that will be supported. While employment in general is positive, the type of employment will impact differently on the local population. It might be that support for high tech and higher education jobs does not capitalise on the opportunity to improve employment and income deprivation in deprived communities. However, as the number of employment opportunities increases it is inevitable that the type of jobs will also diversity. As such, the Options that encourage the greater number of employment opportunities are assumed to impact more positively on the communities and well being objectives.</p> <p>There are a number of potentially adverse impacts associated with the greater provision of employment opportunities. There is the potential for greater employment to encourage unsustainable travel patterns and a greater number of journeys by private car. Depending on the type of employment, the development may also have a range of visual impacts in terms of landscape, townscape and cultural heritage. These will have to be carefully mitigated at the project level.</p>														

Broad Locations for Future Development

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
09	Development within the Urban Area of Cambridge	↘	↘	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	↗	<p>This Strategic Option has a mix of impacts in terms of sustainability. Prioritising development within the urban centre through developing vacant or buildings that are likely to be vacant in the future, commercial buildings and garages will protect the distinctive setting of Cambridge through safeguarding the Green Belt and the associated biodiversity on the Green Belt. Redevelopment of sites may therefore have positive effects on landscape, townscape and cultural heritage.</p> <p>However, the scale of potential development within the urban area is severely constrained and if development is just focussed here the impact on the levels of deprivation will be minimal and it will hinder the competitiveness of the economy.</p>
10	Broad Location 1: Land to the North & South of Barton Road	↗	↗	↘	↔	↘	↔	↘	↘	↔	↔	↔	↔	↘	<p>On balance this option will contribute positively to community and well being as it has the potential capacity for between 2,000 and 3,000 dwellings within the City Council boundary, which will include affordable houses. The provision of public facilities and community uses should also have a positive impact on both the new residents and the existing residents within the area, while the inclusion of employment and retail uses within the development will support local employment.</p> <p>The development would not necessarily capitalise on the opportunity to discourage private car use as it is not close to existing public transport infrastructure. Furthermore the location of the development could lead to increased congestion on the M11 at J12. The provision of appropriate public transport and cycling/pedestrian facilities could mitigate this impact.</p> <p>Small parts of the proposed development land are within flood zones 2 and 3 and may lead to increased flood risk both for the site and for the surrounding areas.</p> <p>The development of the land to the North and South of Barton Road would have a significant</p>

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															adverse effect on the landscape and townscape of Cambridge through obstructing the view of the historic core of Cambridge from the west and impacting on the setting of the city within the wider landscape. The area is identified as of “very high” importance in terms of the Green Belt. In terms of the priorities identified for West Cambridge in the SA Scoping Report, the development is likely to have a negative impact through reducing access to open space and impacting on the Green Belt setting.
11	Broad Location 2: Playing Fields off Granchester Road Newnham	?	?	?	↔	↓	↔	↓	↓	↔	↔	↓	↔	↓	On balance this option will contribute positively to community and well being as it has the potential capacity for between 450 and 700 dwellings within the City Council boundary, which will include affordable houses. The provision of social infrastructure is uncertain and the removal of open space may have a negative impact on existing residents. Given the current contribution of the site to alleviating the risk of flooding to the surrounding area, it is likely that this Option would have negative impacts on flood risk. The site is designated as of high or medium value in terms of the Green Belt and the open space is important in providing views of the historic centre and contributing to the setting of Cambridge. Furthermore, the hedgerows and river meadows are important for wildlife. They form part of the green network, which is important in terms of biodiversity and adaptation to climate change. The development is therefore likely to have negative impacts on biodiversity, green infrastructure, landscape and townscape. The proposed development is on the border of the West and South functional areas within Cambridge. It is likely to have a negative impact on the priorities identified for these areas in the SA Scoping Report. Namely, it is unlikely to maintain and enhance open space or address flood risk.

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12	Broad Location No. 3: Land West of Trumpington Road	?	?	?	↔	↘	↔	↘	↘	↔	↔	↘	↔	↔	<p>On balance this option will contribute positively to community and well being as it has the potential capacity for between 1,000 and 1,500 dwellings within the City Council boundary, which will include affordable houses. The provision of social infrastructure is uncertain and the removal of open space may have a negative impact on existing residents.</p> <p>The development of the site is likely to have significant adverse impacts on wildlife sites and green/blue corridors, including on areas of woodland, and on the landscape and setting of Cambridge. The site currently provides an important and attractive rural setting for the historic core and provides an important green corridor running into the city centre.</p> <p>The development may also impact on the Conservation Area in the northern part of the broad location and therefore have an adverse impact on cultural heritage.</p> <p>Significant areas of the Rugby Club ground are within the functional floodplain. Development in the functional floodplain will put the development at a high risk of flooding and will also increase flood risk elsewhere.</p> <p>The sports ground to the north of the site might have greater potential for development given the fact that it is well screened. However, the negative impacts associated with loss of public open space, biodiversity and green infrastructure may be significant.</p> <p>In terms of the priorities identified for South Cambridge in the SA Scoping Report, the development is likely to have a negative impact on balance. This is due to the potentially adverse impact on flood risk, open space and the conservation area.</p>
13	Broad Location 4: Land west of Hauxton Road	↗	↗	?	↔	↔	↔	↘	↘	↔	↔	↘	↔	↔	<p>This option would have a limited positive impact on communities and wellbeing as it has a capacity for between 110 and 160 dwellings within the City Council boundary, which would include the</p>

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															<p>provision of affordable houses. The proposal to incorporate a community stadium and sports village might provide additional benefits for the local economy and a resource for the local community. A potential negative impact however is the proximity of the development to the M11, which may have impacts in terms of air quality for the residents</p> <p>The development of the site is likely to have negative impacts on landscape, townscape and cultural heritage due to the proximity to the Romano-British scheduled monument and the importance of the site as a setting for the city. Development on this site would also replace arable land uses and may have negative impacts on farmland birds and other biodiversity.</p> <p>The impact on the priorities identified for South Cambridge in the SA Scoping Report is neutral, with the exception of the removal of open space which is considered to have a negative impact.</p>
14	Broad Location 5: Land South of Addenbrookes Road	↗	↗	?	↔	↘	↔	↘	↘	↔	↔	↘	↔	↔	<p>The proposal to include social infrastructure as well as potential capacity for between 750 and 1,150 dwellings including affordable housing means that the development is overall likely to have a positive impact on communities and well being. A potential negative impact however is the proximity of the development to the M11, which may have impacts in terms of air quality for the residents.</p> <p>The situation of the proposed development on higher ground has a number of negative implications, including changing the townscape of Cambridge and the view of the town from the south and also potentially in terms of increasing surface water flood risk in surrounding areas.</p> <p>The removal of arable farmland, including the mature hedgerows is likely to have negative impacts on biodiversity and wildlife corridors. Development may also have negative impacts on the River Cam to the south of the site, which is an important green/blue corridor.</p> <p>Part of the area is within flood zones 2 and 3 and development may therefore lead to an increased</p>

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															<p>risk of flooding both on the site and in the surrounding areas. The development may also impact on a scheduled monument which is situated in part of the site.</p> <p>The development will not address the priorities identified for South Cambridge in the SA Scoping Report, which include a need to address flood risk and deprivation in the eastern part of the functional area and maintain and enhance open space.</p>
15	Broad Location 6: Land South of Addenbrooke's and Southwest of Babraham Road	↗	↔	?	?	?	?	↘	↘	↔	↔	?	↔	↔	<p>This Option will still help contribute to the delivery of much needed additional housing, as it has the potential capacity for between 900 and 1,400 dwellings within the City boundary, which would include affordable housing. The extent to which this Option would enhance community leisure and open space provision for new residents is not known and would depend on whether the site is purely residential or mixed use. It is unlikely that the site would support a new school or significant local facilities. As a result residents would need to travel to access such facilities which would place greater pressure on local transport infrastructure. However development could help to catalyse improved public transport in this area and help encourage greater use of public transport and walking/cycling. Existing reasonable public transport services and the presence of the park and ride could be improved to support any development.</p> <p>Development on this site could result in significant impacts on landscape and townscape issues. The site is identified as high value in terms of the importance of the setting of the City and Green Belt purposes and the site currently helps to clearly define the urban edge of the City.</p> <p>It is likely that development on this site would lead to adverse effects on biodiversity and result in the loss of green infrastructure. Development at this site is likely to affect adjacent nature conservation designations and its 'ribbon nature' could affect existing wildlife corridors along existing hedgerows, drainage ditches and tree belts.</p>

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16	Broad Location No. 7: Land between Babraham Road & Fulbourn Road	↗	↗	↘	?	?	?	↘	↘	?	↔	?	?	↔	<p>On balance this Option should contribute positively to the Community and Well Being topic as there is potential capacity for between 3,000 and 4,600 dwellings within the City Council boundary. Specifically, it will increase the delivery of affordable housing. However, the success of development in this area will be dependent on the timely provision of associated infrastructure such as schools and other community services; and the development's integration with existing protected open spaces and the wider landscape.</p> <p>It is likely that this development will lead to significant increase in daily trips and impacts on the local road and public transport network. The extent to which new residents use more sustainable transport modes will depend on the quality and frequency of services provided and provision of safe cycling and walking routes. Currently, most of the area is over 400m from the nearest bus stop.</p> <p>This Option is likely to result in significant effects on the wider landscape and setting of Cambridge. Areas of the site are categorised as medium to very high in terms of importance to the setting of the City. Views from the area are mostly elevated providing vistas over the City; also, the site is likely to be visible from southern parts of the City. The site currently performs an important role in helping define the urban edge of the City and this function would likely be lost. Areas of archaeological interest are also identified nearby but it is likely that impacts on these could be mitigated.</p> <p>This Option is likely to result in significant effects on key issues relating to biodiversity and green infrastructure. Notwithstanding the Grade 2 & 3 agricultural land status, the site is located adjacent to two Country Wildlife Sites. Furthermore, the site is located on relatively high ground and development could potentially result in increased surface water runoff and an increased risk of flooding to adjacent communities.</p>

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															It is unclear at this stage whether development on this site would result in any significant environmental effects in South, or nearby, East Cambridge areas, as identified in the SA Scoping Report. While development could facilitate the achievement of successful new communities and help address deprivation issues in these areas there is still the potential for impacts relating to flooding, transport and open space provision that would need to be carefully mitigated.
17 18 19	Broad Locations 8, 9 and 10														These broad locations fall entirely within South Cambridgeshire District Council area, and will be assessed by their SA.

Strategic Spatial Options

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
20	Green Belt	↘	↘	↔	↔	↗	↔	↗	↗	↔	↔	↔	↔	↔	<p>It may be that the Local Plan will alter the extent of the Green Belt. However, that decision is beyond the remit of this Option. This Option simply protects those areas designated as Green Belt within the Local Plan. As such it has a range of positive implications. These relate to protecting and enhancing existing natural flood risk infrastructure, supporting adaptation to climate change, protecting the setting of Cambridge within the wider landscape and protecting biodiversity on the Green Belt.</p> <p>Restricting further development of housing and employment land could adversely impact on attempts to increase the buoyancy of the local economy and efforts to reduce the affordable housing deficit.</p> <p>It is important to note that the legitimacy of this Option might be undermined by the further release of land from the Green Belt. Care should be taken that this does not set a precedent.</p>
21	Setting of the City	↗	?	?	↔	↔	↔	↗	↗	↔	↗	↗	↗	↗	<p>This Option should have a positive effect in ensuring that new developments on the edge of the City do not adversely impact biodiversity, and maintain connectivity between existing green infrastructure. This is because the option is likely to protect the green fingers of countryside that go into the City alongside the river. Promoting access to the surrounding countryside will also have positive health and well being benefits. Taking the opportunity to conserve, enhance and improve the edge of Cambridge should help maintain Cambridge's 'setting' while still providing support for appropriate development. This is likely to have a positive effect on landscape, townscape and cultural heritage as the option seeks to conserve and enhance landscape setting and special character. The Option may also help to maintain Cambridge as a compact City with a sharp edge between the urban area and the countryside, which is key to the distinctiveness of Cambridge.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
22	Green Infrastructure	?	?	↔	↔	↗	↔	↗	↗	?	?	?	?	?	The requirement for all new developments to create and enhance green spaces and where possible to link together green networks would have a range of positive impacts. These include on flood risk and climate change adaptation (mitigation of the urban heat island effect), biodiversity and the setting of Cambridge within the broader landscape. It is likely that it would also have beneficial impact on communities and well being through the enhanced provision of open space and opportunities for recreation, which have a range of health and associated benefits. However, it may also lead to a lack of flexibility, which might mean that green infrastructure is not targeted to where it would have the most beneficial effects.
23	Comprehensive policy for the River Cam Corridor	↔	↗	↔	↗	↗	↔	↗	↗	↗	↗	↔	↗	↗	<p>Overall this Option will have a positive impact. Given the importance of the River Cam in framing the city and the 'world-famous' views of Cambridge from the 'backs', a policy that safeguards this important environment will ensure Cambridge maintains its position as a leading tourist destination, which is beneficial to the local economy. The Option also ensures the protection and enhancement of the historic environment and in will help to promote the character and distinctiveness of the conservation areas. More generally, the Option performs well in terms of flood risk, water quality, landscape, cultural heritage and biodiversity.</p> <p>This Option will not impact on South Cambridge (as defined in the SA Scoping Report) as the River Cam does not flow through this functional area, but it will have a positive impact on the other areas within Cambridge.</p>
24	City Centre	?	?	↗	↔	↔	↔	↗	↔	↗	↔	↔	↔	↔	The overall aim of this Option is to maintain and enhance the viability and vitality of the City Centre and improve the public realm. This will clearly have a range of positive impacts. However, given the competing use for the City Centre some uses will inevitable be preferred over others and there will be trade-offs. Without knowing the priority uses for the city centre and how competing uses

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															would be assessed it is difficult to assess the sustainability of this option.
25	Maintain the current hierarchy of centres with new additions	?	↗	↔	↔	↔	↔	↔	↔	↗	?	?	?	?	<p>It is difficult to assess the sustainability of this Option and Option 26 given the absence of information on how the current hierarchy of centres is functioning and the justification therefore for changing the approach.</p> <p>This Option represents the business-as-usual scenario. It will continue to protect those identified town, district and local centres set out in the 2006 Local Plan and will therefore have positive impacts on the economy and the city centre. However, it may be detrimental if it affords protection to inappropriate centres and prevents other legitimate uses.</p> <p>In general if the current approach to town centres is out of date and does not adequately protect emerging centres and at the same time offers protection to small and unviable local centres, then it is not functioning optimally in terms of sustainability.</p>
26	Change the position of some centres within the hierarchy with new additions	↗	↗	↔	↔	↔	↔	↔	↔	↗	↗	↗	↗	↗	<p>Given the fact that this Option will be based on the most up to date information relating to current, emerging and small urban centres, it performs better than the previous Option. It should ensure that adequate protection is given to important old and emerging centres, while at the same time permitting other types of development in small and unviable local centres. This has a range of positive impacts that relate to communities and well being and the economy.</p>
27	Residential Communities	↗	↔	↗	↔	↔	↔	↔	↔	↗	↗	↗	↗	↗	<p>This Option would ensure that residential communities have access to a range of services and a high quality living environment. This Option is likely to support sustainable travel patterns, and improve the communities and well being theme through addressing deprivation and inequality in existing residential communities.</p>

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28	Station Area	↗	↗	↔	↔	↔	↔	↗	↔	↗	↔	↗	↗	↔	This Option supports the continued regeneration of the Station Area as a mixed use area, which has a range of associated positive impacts in terms of sustainability, especially for the economy and communities and well being. Specifically it supports further development of office space, which was identified as a key issue in the SA Scoping Report. While the Station Area is technically in the City Centre, this Option will have broader positive implications on the neighbouring areas in South and East Cambridge. It is also likely that the regeneration of the area will continue to improve the townscape, although new development should be sensitive to the historic environment especially given its proximity to the city centre.
29	Southern Fringe	↗	↗	↔	↔	↔	↔	↔	↔	↔	↔	↗	↔	↔	The development of the Southern Fringe site was facilitated through the 2006 Local Plan. Continuing to support the development of the southern fringe through the spatial strategy will maintain the sustainability benefits associated with addressing levels of deprivation and mitigating flood risk through improved drainage.
30	Addenbrooke's Hospital	↗	↗	↔	↔	↔	↔	↔	↔	↔	↔	↗	↔	↔	The continued support for the creation of the Cambridge Biomedical Campus has a range of positive implications in terms of sustainability. Most importantly it will provide a cluster of healthcare, bio-medical and bio-technical research, and high-education uses. The ambition is for the cluster to be at the leading edge of health-care expertise. It will therefore have a significant positive impact on the local economy and will also provide excellent health care facilities for Cambridge residents.
31	North West Cambridge	↗	↗	↔	↔	↔	↔	↔	↔	↔	↗	↔	↔	↔	The continued support for development to support staff and key workers from the University of Cambridge in North West Cambridge is positive, as is the development of a new residential community between Huntingdon Road and Histon Road. The North West Cambridge site will help to support the leading position of the University of Cambridge and will also help to address levels

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															of deprivation, which are quite extensive in northern Cambridge. It therefore has positive impacts on communities and well being on the economy and on North Cambridge.
32	West Cambridge	?	↗	?	↔	↔	↔	↔	↔	↔	↔	↔	↔	↗	<p>This Option entails the more intensive development of the West Cambridge Site to provide high density employment space. This is likely to lead to significant positive impacts in terms of the economy and will help meet the identified requirement for more office space for small high tech and research businesses.</p> <p>The Option also includes the proposal to create shared social spaces. This may have indirect benefits on communities and well being.</p> <p>The Option states that key to developing West Cambridge will be the provision of good public transport infrastructure. This is key due to the relatively poor linkages between the site and public transport infrastructure. Without significant investment further development of the site would lead to greater pressure on transport infrastructure and congestion.</p>
33	Northern Fringe East	↗	↗	↗	↗	↔	↗	↗	↔	↔	↗	↔	↔	↔	<p>This Option should deliver significant effects in terms of addressing deprivation and the wider need for regeneration in North East Cambridge. The Options focus on transport led growth should have significant effects on reducing the reliance on the private car and help mitigate related transport emissions. Provision for an interchange between local buses and the Guided Bus as well as improved access for cyclist and pedestrians should also contribute significantly to transport and climate change mitigation sustainability issues. The Option's identified key principles require high standards of sustainability and design quality which should help address key sustainability issues relating to the need for high standards of water efficiency, minimising landscape impacts and improving the quality of the built environment.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
34	Cambridge East - Retain current allocation	↗	?	↘	?	↔	↔	↘	↘	↔	↔	↔	↗	↔	Retaining the current allocation for development would help safeguard potential future housing provision. If delivered this would contribute significantly to addressing key communities and well being sustainability issues relating to housing, community and education provision and may help address aspects of deprivation in this area. Although this Option is likely to increase pressure on transport infrastructure this is uncertain; as the development is unlikely to be delivered until 2031 by which time transport provision may be radically different to today. Should development be brought forward more quickly (for which this Option provides flexibility) then adverse transport impacts would be expected. As the AAP notes the development of Cambridge East would take many years to complete and as it wouldn't be delivered for a number of years this appraisal is inherently uncertain.
35	Cambridge East – Safeguarded Land	↗	?	↘	?	↔	↔	↘	↘	↔	↔	↔	↗	↔	Safeguarding land for future development would result in largely similar effects across the sustainability topics. However it would provide less certainty to developers and may hamper confidence in the local economy.
36	Cambridge East – Return the land back to the Green Belt	↘	?	↗	↗	↗	↔	↗	↗	↔	↔	↔	?	↔	Option 36 is likely to result in adverse effects against the community and well being sustainability topic. The loss of this land that could otherwise deliver significant housing, employment and community service provision is likely to minimise the opportunities to help address housing, health and potentially employment deprivation within this area. In contrast this Option would likely deliver significant benefits in addressing key sustainability issues relating to transport, water, flood risk, landscape and biodiversity as compared to protecting this area for future development. Notwithstanding, this appraisal is inherently uncertain as It is not expected that this land would be made available until 2031, in which time key issues identified for this appraisal may have changed.

Opportunity Areas

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
37	Mill Road	↗	↗	↗	↔	↔	↗	↗	↔	↔	↔	↔	↗	↔	<p>An Option to specifically protect and enhance the diversity and character of Mill Road is likely to result in significant positive effects across a number of sustainability topics. In terms of the Communities and Well Being topic this Option should help address the key issues relating to the need to capitalise on the ethnic diversity of the city and realise its contribution to vibrant and inclusive communities. Mill Road already benefits from a number of active community groups which this Option should help support. Specific reference to improving environmental quality for pedestrians and cyclists should also contribute to general improved and safer public realm and encourage more people to walk and cycle. Removal of road markings, signage and other clutter should also contribute to promoting the character and distinctiveness of the road helping address issues relating to townscape.</p> <p>In terms of the key economic sustainability issues, the Option's reference to rely on the 'General shopping policy' (which performed well when appraised) should restrict change of use from small shops to larger units and help maintain the diversity of shopping provision. It will also help directly safeguard independent shops along Mill Road, an identified key issue in the East Cambridge area as identified in the SA Scoping Report.</p>
38	Eastern Gate	↗	↗	↗	↔	↔	↗	↗	↔	↗	↔	↔	↗	↔	<p>The large and busy roads and junctions in this area, combined with areas of bulky industrial buildings have resulted in geographically fragmented communities. The Option's focus on improving the highways and public realm will have immediate and direct positive effects on encouraging greater walking and cycling in the area which is a key issue across a number of sustainability topics. More generally, this Option will contribute to an improved townscape and increase the attractiveness of the city as a place to live, work and spend leisure time. Furthermore, it could act as a catalyst to the regeneration of the wider area and help address identified deprivation issues in East Cambridge.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
39	Cambridge Railway Station to the City Centre & Hills Road Corridor	↗	↗	↗	↔	↔	↗	↗	↔	↗	↔	↗	↔	↔	<p>The proposed public realm improvements at the identified seven key parts of this area would contribute to a safer, more attractive, accessible and integrated public realm. These changes are likely to result in significant positive effects on key community and well being and transport issues. In particular it should help build on the high modal share of cycling and encourage longer journeys by bike. Reducing the confusion for visitors on arriving at Cambridge Station will also help better orientate people and encourage more people to walk to the City Centre helping minimise transport related GHG emissions. This Option should lead to wider regeneration benefits, in particular, helping address areas of health deprivation to the west of Hills Road in the South Cambridge area (as identified in the SA Scoping Report).</p> <p>This Option should also have significant effects in protecting and enhancing shopping provision in Hills Road Local Centre and along Regent Street helping address this key 'economy' issue. Furthermore it should also help encourage more sustainable growth of tourism by minimising the pressure tourism places on the City's transport infrastructure.</p>
40	South of Coldham's Lane	↗	↔	↔	↔	↔	↔	↗	?	↔	↔	↔	↗	↔	<p>This Option would contribute significantly to improving the health and well being of Cambridge residents by providing greater access to open space and opportunities for walking, cycling and sports activities. This Option will provide additional open spaces and green space and should help address the relatively high levels of health deprivation in this area because it has been inaccessible to the public. Redevelopment of this site should also contribute to increasing the attractiveness of the area. Increasing the recreational use of the sites could have The extent to which this Option would have negative effects on biodiversity, although the option is clear that biodiversity value would be considered before any development takes place [this refers to a new sentence we have added in] is uncertain. The eastern most site is designated as a City Wildlife Site; it is not clear whether redevelopment would have any adverse effects on biodiversity on this site. However, redevelopment could provide opportunities for improved conservation and a net increase in biodiversity, facilitated in part, through the proposal to develop a green and blue corridor through to the Spinney Nature Reserve.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
<p>Summary: The Opportunity Areas' focus on public realm improvements and recreational provision and are likely to result in significant positive benefits across a number of sustainability topic areas. In each of the areas the proposed improvements should result in a more accessible and attractive public realm and improved pedestrian and cyclists safety; thus helping promote greater uptake of these transport modes and reduce private car use. This will have benefits in terms of addressing key transport and climate change mitigation sustainability issues. There are likely to be economic benefits relating to improvements to shopping areas and tourism. In particular, specific improvements around the station will help present Cambridge as an attractive, sustainable and welcoming City helping maintain its position as a place to live work and visit.</p>															

Sustainable Development, Climate Change, Water and Flooding

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/landscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
41	Innovative and sustainable communities	↗	?	↗	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	<p>This Option should result in positive effects across the majority of sustainability topics. In particular, specific reference to efficient use of energy, water and natural resources should ensure improved water efficiency and reduced carbon emissions from all aspects of new developments.</p> <p>Consequently, this Option will help contribute to a more attractive public realm and improved health and well being of Cambridge residents. Striving to deliver truly sustainable communities capable of adapting to the impacts of climate change should also have beneficial effects on maintaining Cambridge's position as an economically competitive City now and in the future. This Option should also result in positive effects in terms of climate change mitigation as the Option seeks to secure radical reductions in carbon emissions.</p>
42	Develop a comprehensive sustainable development policy	↗	?	↗	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	<p>The Option to set out sustainability principles to be embedded into all development proposals is likely to contribute positively across all sustainability topics.</p> <p>Integrated water management and water conservation as mentioned in the Option should help to ensure that new developments implement high standards of water efficiency, likely preventing additional pressure on water resources in the region.</p> <p>Striving to deliver truly sustainable communities by embedding sustainability principles into all development proposals in Cambridge may also have beneficial effects on maintaining Cambridge's position as a competitive city, if it is seen as leader in sustainability.</p> <p>Positive effects are likely to occur with regards to the climate change adaptation and mitigation sustainability topics as the Option seeks to incorporate sustainable drainage systems, reductions in carbon emissions, and considerations of building design and adaptability into all development</p>

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															proposals.
43	Sustainable construction standards	↗	?	↗	↗	↗	↗	↔	↔	↗	↗	↗	?	?	Implementing a requirement for Level 4 and above of the Code for Sustainable Homes, and BREEAM very good or excellent for new development proposals is likely to ensure the delivery of sustainable buildings and contribute to reduced emissions from buildings in both construction and operation. This Option should result in positive effects across the majority of sustainability topics. For example, new homes will have to meet the needs of both the existing and future population helping to directly address a key 'communities and well being' issue. In addition, the requirement for cycle storage should help contribute to improving the modal share of cycling in the City.
44	Detailed targets for onsite carbon emission reductions that relate to levels of the CfSH being sought	↗	?	↗	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	The Options proposed to reduce carbon emissions from new development should have positive effects against the majority of the sustainability topics. Following the standards set out under Option 43 (sustainable construction) Option 44 would ensure that developments are on the path of meeting zero carbon in 2016 (2019 for non-residential). This would result in positive effects on the majority of sustainability topics. It is uncertain the extent to which this option would contribute to Cambridge's economy; however the evidence base suggests that higher levels of carbon reduction are possible, and therefore tighter standards than those presented in Option 44 could potentially help Cambridge to achieve its vision of being a low carbon city, with associated advantages in terms of competitiveness.
45	Detailed targets for onsite carbon emissions reductions in line with the findings of Decarbonising Cambridge	↗	↗	↗	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	Option 45 would likely result in positive effects across nearly all of the sustainability themes. This is because a requirement for levels of carbon reduction beyond those required under Part L Building Regulation, and zero carbon homes, would contribute positively to radically reducing carbon emissions across Cambridge. In addition, the Option leaves flexibility for more stringent targets where specific sites are well situated relative to sustainable infrastructure. This will benefit Cambridge's position as a competitive city, as sustainable forms of transport would be promoted to
46	Leave carbon reduction to	↗	?	↗	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
	Building Regulations and continue to operate a percentage renewable energy policy														<p>reduce emissions, as would energy efficiency and renewable energy technologies. In addition to the hierarchical approach adopted, renewable energy provision could still be incorporated into schemes to meet the required reduction under the findings of Decarbonising Cambridge****. This would help address concerns surrounding fuel security and national targets for renewable energy generation.</p> <p>Option 46 would likely result in positive effects across most sustainability topics, however using carbon reduction targets set under Part L of the Building Regulations is likely to result in fewer initiatives and less drive to reduce carbon as much as Decarbonising Cambridge suggests is viable. The proposed continued requirement to apply the Merton Rule in carbon reduction would ensure opportunities to reduce energy demand through renewable technologies are maximised. However, this aspect of the policy could be combined into Option 45. Furthermore, by following Part L of the Building Regulations, Option 46 would not cover wider elements of sustainable development, such as the use of materials with low environmental impact, enhancement of biodiversity and consideration of the impact of building design on the health and wellbeing of building occupants. These elements addressed by Option 44 and 45 are integral to a holistic approach to sustainable development, helping to achieve the Plan's vision for a low carbon City.</p>
47	Establishment of a Cambridgeshire Community Energy Fund	↗	↔	?	↔	?	↗	↔	?	↗	?	?	?	?	<p>Enabling developers to offset remaining emissions in their carbon reduction targets through paying into a Community Energy Fund is likely to have a positive effect in ensuring greater deployment of energy efficiency, low carbon and renewable energy technologies across Cambridge, meeting the key sustainability issues set out under the City Centre and Climate Change mitigation themes. Further positive effects against these themes can be expected as the Option would help developers reach zero carbon policy compliance. The Option sets out that the fund is likely to invest in schemes that have direct local benefit for Cambridge communities. This could have</p>

**** <http://www.cambridge.gov.uk/democracy/mqConvert2PDF.aspx?ID=2315>

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															significant positive effects in improving the well being of Cambridge residents for example by improving air quality locally and creating a greater sense of community through shared projects locally.
48	Renewable and Low carbon energy generation	?	?	↔	↔	?	↗	?	?	↗	↔	↔	↔	↔	This Option is likely to have a positive effect on key issues identified under the climate change mitigation and renewable energy theme, such as ensuring greater deployment of renewable energy technologies, and reducing carbon emissions from new developments. It will also provide opportunities to reduce energy demand as renewable technologies are maximised, which has been identified as important for the City Centre. The impact on the economy is uncertain as a requirement for supporting the development of renewable and low carbon energy projects may affect the viability of schemes, however, it would also provide a cost effective way for developers to meet their carbon reduction obligations, and could be positive in positioning Cambridge competitively in terms of energy security and leading in low carbon initiatives. While looking to promote renewable and low carbon energy generation, there will be a need to balance other objectives such as the protection and enhancement of the historic environment and biodiversity in Cambridge.
49	Climate Change Adaptation	↗	?	?	?	↗	↗	↗	↗	↗	↗	↗	↗	↗	The Option proposed should enable new and existing communities to be capable of adapting to climate change, as the issues identified in the sustainability framework seek to protect and enhance natural flood risk management and to enable developments to adapt to other climate change impacts. There should be a positive effect on climate change mitigation, as the highest standards in low carbon design will be encouraged in building design and construction. The role of landscaping, such as green roofs and enhanced tree canopies, is likely to improve habitats for biodiversity and reduce fragmentation. Similarly, measures to further urban greening will capitalise on the opportunity for green infrastructure to help Cambridge adapt to climate change impacts, with subsequent positive effects on reducing flood risk, urban cooling and maintaining communities' access to green infrastructure. Urban greening could also have a positive effect on landscape and

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															townscape.
50	Consequential Improvements policy (to homes and non-residential buildings where Part L requirements would not currently apply)	↔	?	↔	↗	?	↗	?	?	↗	?	?	?	?	In the case that Building Regulations are not amended to apply requirements for consequential improvements to all existing domestic buildings that undergo works to increase habitable space, Option 50 would contribute to carbon emission reduction targets. As a result, this Option should help secure energy efficiency improvements and encourage high standards in low carbon design. Retrofitting water conservation measures to existing buildings, as proposed under this Option, should secure positive effects for high standards of water efficiency and reduce pressure on water scarcity in the region. The impact on heritage assets remains uncertain as the appropriate conservation of assets will be dependent on actual implementation of this Option within the historic environment.
51	Develop a comprehensive integrated water management policy	↗	↔	?	↗	↗	?	?	↗	↗	↗	↗	↗	↗	This Option should have positive effects on ensuring all developments incorporate sustainable drainage systems to minimise surface water flood risk. Surface water management will result in the protection of existing natural flood risk management infrastructure, such as green open spaces, which is likely to bring further benefits associated with improving the health and well being of Cambridge residents, and maintaining biodiversity. Under this Option water sensitive design such as the integration of multiple small ponds rather than one large pond will be of high quality and could therefore contribute to improved visual amenity. As a result of improved surface water management, benefits can be expected with regards to biodiversity enhancement and improvements in water quality.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
52	Water efficiency - water neutrality	↔	?	↔	↗	↔	?	?	↔	?	↔	↔	↔	↔	<p>Water neutrality results in the most positive effects against the sustainability themes, as it is the most radical in terms of addressing the severe water stress identified in Cambridge's Water Resources Management Plan. Out of the proposed Options water neutrality would ensure overall demand would not increase and potentially decrease in the longer term with future water saving measures. The effect on reducing carbon emissions is uncertain, as the Water Cycle Strategy found that carbon emissions can actually increase with water neutrality as the use of rainwater and grey water harvesting at a community scale requires a lot of pumping, which has associated emissions. The key benefits from water neutrality would be preserving Cambridge's scarce water resources and minimising the environmental, social and economic impacts from over extraction.</p> <p>From an economic perspective this Option (water neutrality) could place Cambridge in a competitive position as it would be at the forefront of water efficiency initiatives. However, it is also the most expensive Option presented.</p> <p>Option 53 requiring 80 litres per head per day would result in the same benefits to Option 52 but to a lesser extent. This is due to the fact that there would be a net increase in water used in Cambridge per year, which may exacerbate the existing water stress in the area as identified by the key sustainability issue 'place no additional pressure on water scarcity in the region'.</p> <p>Requiring 105 litres per head per day would still result in increased water efficiency and reduce per capita water consumption as Cambridge currently has an average per capita water use of 151 litres per day. Both these issues are identified in the sustainability framework. In addition the economic impact could be positive as this is the lowest cost option with regards to the associated water supply infrastructure. However, there would be a net increase in water used in Cambridge, which could overtime create additional pressure on water scarcity in the region. In addition, the contribution to carbon emission reductions would be less than the above Options.</p>
53	Water efficiency – 80l/head/day	↔	↗	↔	↗	↔	↗	?	↔	↗	↔	↔	↔	↔	
54	Water efficiency – 150l/head/day	↔	↗	↔	↗	↔	↗	↔	↔	↗	↔	↔	↔	↔	

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55	Water efficiency – non domestic buildings (highest level)	↔	↗	↔	↗	↔	↗	?	↔	↗	↔	↔	↔	↔	Requiring all non domestic developments be designed to the highest water efficiency levels will more expensive compared to Option 56. However, as expected Option 55 results in the most significant positive effects against the sustainability topics, as it is the most radical in terms of addressing the severe water stress identified in Cambridge’s Water Resources Management Plan. From an economic perspective, whilst this option is the most expensive, it would place Cambridge in a competitive position in terms of leading on water efficiency Initiatives. This Option would result also result in significant carbon emissions savings associated with water production, as overall increases in supply would be kept to a minimum.
56	Water efficiency – non domestic buildings (high level)	↔	↗	↔	↗	↔	↗	?	↔	↗	↔	↔	↔	↔	
57	Develop a comprehensive flood risk reduction policy	↗	↗	↔	?	↗	↔	↗	↔	↗	↗	↗	↔	↔	Addressing flood risk has been identified as a key issue across much of Cambridge. This Option should ensure that design considerations in new developments meet the potential for increased flood risk in the future helping to address the issues identified under the Flood risk sustainability theme. The flood risk reduction measures proposed, such as the management of flow routes that result from surface water flooding, should help ensure the continued high quality of the city centre as a place to live, work and spent leisure time.
58	Develop water body quality policy	↗	↔	↔	↗	↔	↔	?	↗	↗	?	?	?	?	This Option should improve the water quality of Cambridge’s water courses meeting the key issue identified for Cambridge’s water courses to be in line with the Water Framework Directive requirements. Enhancements to open green space where there are water bodies may have positive effects on

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															the issues identified under the 'communities and wellbeing' theme, such as protecting and enhancing open space provision. The contribution of waterside developments in improving water quality and the ecology of water bodies is likely to have a positive effect on ensuring that new development does not adversely impact on biodiversity. Improving the quality of water bodies in Cambridge may also have positive implications on the quality of the public realm.
59	Develop a green roof policy	?	↔	↔	↗	↗	↗	?	↗	↔	↗	↗	?	?	<p>Through the enhancement of the natural environment and landscape the development of intensive and extensive green roofs could result in positive effects on water attenuation rates through improvements in surface water management. This can contribute positively to reducing flood risk including climate change adaptation. Similarly, green roofs can reduce urban heat island effects, and therefore all contribute positively to climate change adaptation.</p> <p>This Option is likely to result in improvements to water quality and therefore contribute to the issue of the quality of Cambridge's water courses identified in the sustainability framework. Positive effects on the issues under the biodiversity theme can also be expected, as opportunities for green infrastructure for habitats would increase. This could also have positive effects on carbon reduction also identified as a key issue. As the Option states, the policy would require careful consideration of the appropriateness of green roofs when dealing with heritage assets, to mitigate any adverse effects. This would particularly be the case if green roofs were required on all buildings, as is suggested by one of the variations set out within this option.</p>
<p>Summary:</p> <p>The proposed Options for sustainable development, climate change, water and flooding generally result in positive or significantly positive results against the sustainability themes. Option 45 suggesting targets in line with the findings of Decarbonising Cambridge resulted in the most positive effects. By requiring levels of carbon reduction beyond those required under Part L Building Regulation, and zero carbon homes, this option would contribute positively to radically reducing carbon emissions across Cambridge, a key issue identified in the sustainability framework. In addition, the Option leaves flexibility for more stringent targets where specific sites are well situated relative to sustainable infrastructure, which could further the aforementioned positive effects. Similarly, striving for water neutrality resulted in the most significant positive effects amongst the water efficiency Options, as it is the most</p>															

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															<p>radical in terms of addressing the severe water stress identified in Cambridge's Water Resources Management Plan. In deciding how stringent adopted targets should be, the effect on maintaining Cambridge's position as one of the UK's most competitive cities should be considered. Taking radical and leading stances in terms of carbon reductions and water/energy efficiency is likely to have a positive effect. However, it should be noted that the more radical measures are likely to be more expensive and could potentially affect the viability of schemes, making Cambridge less attractive to developers.</p>

Delivering High Quality Places

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape / heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
60	Strategic Priority	↗	↗	?	?	?	?	↗	↗	↗	?	?	?	?	This option should have a positive effect on communities and well being issues in Cambridge as it aims to deliver high design quality helping to support the quality of life and amenity for residents and visitors. The support to continue Cambridge's tradition as a creative and innovative City is likely to have positive effects on the vitality of the City Centre and local economy. Positive effects may result on biodiversity and green infrastructure as the supporting option text indicates that the high quality design includes the buildings and spaces around them.
61	Criteria based responding to context policy	↗	?	↗	?	↔	?	↗	↗	↗	↗	↗	↗	↗	This Option will ensure the protection and enhancement of the historic environment through the appropriate design of new developments and sensitivity to existing landmark features. It should also help contribute to improving the quality and distinctiveness of the public realm helping address key issues regarding landscape, townscape and cultural heritage.
62	Criteria based policy for delivering high quality places	↗	↗	?	↔	↔	?	↗	?	↗	↗	↗	↗	↗	Setting out comprehensive criteria for the quality of new developments including aspects such as designing out crime, enhancing public realm and considering those with disabilities is likely to have positive effects on key issues regarding communities and well being including helping protect and enhance community, leisure and open spaces and support the provision of affordable and intermediate housing. All areas in Cambridge are likely to benefit from the inclusion of criteria such as the integration of landscape design, inclusion of public art and proactive management and maintenance of development. Effects of this policy on the Biodiversity, Transport and Climate change themes are uncertain when taking this option in isolation. However, other policies in the plan address criteria relating to these aspects, which could contribute positively to Delivering High Quality Places, for example sustainable design and construction options.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape / heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
63	Criteria based policy for the design of buildings	↗	↗	↗	↗	↗	↗	↗	?	↗	↗	↗	↗	↗	<p>This Option should contribute positively to the maintaining the character and quality of the City's historic environment, through its specific reference to the need for new buildings to be of the highest architectural quality. Criteria requiring integrated design appropriate to the locality, that are convenient, safe and accessible should all contribute to addressing many of the community and wellbeing issues. The specification for buildings to be constructed in a sustainable manner and easily adaptable should help meet changing lifestyles/ownership and future climate change. This Option is also likely to provide opportunities to reduce energy demand through increased deployment of energy efficiency technologies, for example. This is covered in more detail by proposed options in other sections of the plan. Economic benefits could result as a high level of architectural quality may attract people to Cambridge, therefore contributing to addressing the issue of continued vitality in the City Centre.</p>
64	The Design of Public Realm, Landscape and other External Spaces	↗	?	?	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	<p>This Option is likely to result in positive effects across the majority of the sustainability topics. Criteria requiring high quality design of the public realm should help contribute to improving accessibility for all members of society and contribute to creating vibrant and inclusive communities and positive health outcomes. Measures to 'green' the City are likely to further this benefit, and also increase the provision of green infrastructure. Requirements to integrate surface water management proposals into the overall design should help address key issues relating to flood risk and climate change adaptation.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape / heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
65	Requirement for the production of design codes in respect of growth areas for all outline planning applications	↗	?	?	↔	↔	↔	?	↗	?	?	?	?	?	The requirement for proposals in growth areas to produce a design code could have a positive effect on several of the sustainability topics, especially if it results in planning applications being submitted in line with these design codes. This is due to the role of design codes in instructing and advising on the physical development of an area. For example, factors such as density and access, which can contribute to improve well being and local amenity, or the design of open spaces which could benefit biodiversity in Cambridge. However, the full effect of this Option at this stage as it is dependent on the actual implementation of the design codes, and not simply on the requirement of having one or not for all applications. This is the case for areas in North, South, East and West Cambridge where some of the growth areas are located.
66	Criteria based policy for alterations and extensions to existing buildings	↗	?	↗	↔	↔	↔	↗	↗	↗	↗	↗	↗	↗	<p>Implementing criteria for the extension and alteration of existing buildings should help ensure that alterations are sensitive to existing local character, particularly within the conservation areas.</p> <p>Criteria relating to the design of alterations should help maintain amenity of neighbouring residents. The requirement to ensure no adverse impact on gardens, trees or wildlife features should also help contribute positively to the key identified biodiversity issues.</p> <p>The effects of this Option should benefit all areas in Cambridge.</p> <p>Other proposed options in the plan cover issues related to the delivery of extensions, such as Water efficiency, and Sustainable design and construction.</p>
<p>Summary:</p> <p>The Delivering High Quality Places Options generally perform positively against the sustainability topics. The Options should ensure that new and existing development proposals will be delivered to a high quality of building design, set within attractive and functional public realm and integrated effectively into the local and wider cityscape. In particular, Options relating to the protection and enhancement of landscape, townscape and cultural heritage perform well against the related sustainability topics. The Option to require the production of</p>															

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															<p>design codes for all outline planning applications, is likely to contribute positively to improving the quality of Cambridge’s built and natural environment. Delivering High Quality Places is closely linked with several other options set out in the plan, including aspects such as sustainable design and construction, water efficiency, flood management, biodiversity and green infrastructure. In combination with the Successful Places options, these related options will apply to any new development and will therefore be influential in addressing issues identified under this appraisal of Successful places.</p>

Protecting and Enhancing the Historic and Natural Environment

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
67	Protecting and enhancing the historic and natural environment	↗	?	↔	?	↗	↗	↗	↗	↗	↗	↗	↗	↗	This option should ensure that new development contributes to the protection of the city's historic assets and improvements in its environmental quality. In doing so this option should help address key sustainability issues relating to landscape, townscape and also the impact on biodiversity. The option should benefit all areas in the city, particularly those wards where significant population growth is anticipated. Specific reference to improving air quality and increased tree cover should also help improve the health and well being of residents and contribute to mitigating and adapting to the effects of climate change.
68	Protection and enhancement of Cambridge's historic environment	↔	?	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	This option is likely to help protect or enhance the city's heritage assets while also recognising the context of their setting helping address key sustainability issues identified within conservation areas, the landscape, townscape and cultural heritage topics. Recognition of the significance of the historic environment should give it added protection and may indirectly ensure new development is of appropriate design and scale. This option should have positive effects across all areas, in particular the Conservation Areas and the historic core.
69	Protection of Buildings of Local Interest and development of a local list	↔	?	↔	↔	↔	?	↗	↔	↗	↗	↗	↗	↗	By increasing the levels of protection afforded to Buildings of Local Interest this option should help to protect the character and distinctiveness of the built environment in all areas of Cambridge. The retention of buildings could potentially impact the viability of some development schemes including much needed housing/office provision. Furthermore, the protected status of some buildings may reduce the opportunities to deploy energy efficiency and renewable energy technologies.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ /heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
70	Works to heritage asset to address climate change	↔	?	↔	↔	↔	?	↗	↔	↗	↗	↗	↗	↗	This option's hierarchical approach to carrying out works to heritage assets should ensure their protection and enhancement and help promote the character and distinctiveness of Conservation Areas and the wider city. The extent to which such works will help contribute to addressing climate change through improved energy performance is unclear, particularly given existing requirements to comply with Part L of the Building Regulations.
71	Shopfronts and signage policy	↔	↗	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	This option should contribute to addressing key sustainability issues relating to the protection and enhancement of the built environment and maintaining and improving the quality of the city. This option may also result in economic benefits obtained through maintaining and enhancing the attractiveness of district and local centres as places to work and spend leisure time.
72	Criteria based tall buildings policy	?	?	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	All aesthetic considerations involve some uncertainty. Despite this, the criteria based approach used in options 74 and 75 should offer good protection to the city's townscape. Greater protection would be provided by a limit on the height of buildings. With all options there is an uncertain economic impact. Extensive protection may stifle innovative developments that could contribute positively economically. Alternately, a negative impact on the skyline could hinder economic development, for instance through lost tourism. Option 74 is likely to offer a balanced approach to skyline protection and development opportunity across all areas. Option 75 looks to allocate or protect specific areas, subject to the criteria set out in option 74. Option 76 may vary height limits by location. The details of how such decisions would be made are not provided and so localised effects cannot be effectively appraised.
73	Policy identifying specific areas suitable for tall buildings	?	?	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	
74	Limits on building heights	?	?	↔	↔	↔	↔	↗	↔	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ /heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
75	*Cambridge Airport Public Safety Zone and Safeguarding Zone	↗	?	↔	↔	↔	↔	↔	↔	↗	?	↗	?	?	This option is likely to have a positive effect on the health and wellbeing of Cambridge residents. This is likely to have a particularly positive effect in the centre and south of the city where there are currently public safety zones in place. In these areas the zones could contribute to safety and to the success of communities.
76	*Paving over front gardens	↔	↔	↔	↔	?	↔	↗	↗	?	?	?	?	?	As planning permission is already required for non-permeable driveways it is unclear how this option will affect flood risk. The addition of visual amenity and biodiversity related criteria to the consideration of paving proposals is likely to have a positive effect. As this option only applies in a limited number of cases, it is not possible to determine area by area effects.
77	*Protection of SNCI	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	The use of a criteria based approach to the protection of sites of nature conservation importance will ensure that the conservation of biodiversity in Cambridge is effective and proportionate. Protection will contribute to the quality of the environment in terms of open and green space across the city. The conservation of biodiversity has potentially positive effects on health and wellbeing. Economically it could contribute positively through protecting ecosystem services, which can include improved water quality.
78	Protection of priority species and habitats	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	By preventing or mitigating the effects of developments that will directly or indirectly impact upon rare or vulnerable species or habitats, this option should help to conserve threatened biodiversity. This is likely to contribute to the quality of green and open space citywide, along with wider potential benefits from ecosystem service provision.

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79	Enhancement of biodiversity as part of all development proposals	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	Option 79, 80 and 91 may all result in higher quality green spaces across the City and so could potentially help contribute to providing wider ecosystem services. The extent to which the options contribute to the enhancement of biodiversity varies, with option 79 likely to provide the greatest gains due to its strength as a standalone policy and its recognition of the opportunities for enhancement at all scales of development.
80	Enhancement of biodiversity as part of major developments	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	
81	Include reference to the enhancement of biodiversity within option 62 (The Design of the Public Realm, Landscape and other external spaces)	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	
82	Support for Strategic Biodiversity Enhancement	?	?	↔	?	↔	↔	↔	↗	↗	↗	↗	↗	↗	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ /heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
	Proposals														
83	Trees	?	?	↔	?	↔	↗	↗	↗	↗	↗	↗	↗	↗	The protection of existing trees is likely to contribute positively to maintaining biodiversity, especially in the case of ancient trees and hedgerows, which provide important habitat and ecological connectivity. Given that the presence of trees also contributes positively to visual amenity, this option should also help enhance both the setting of the city and its townscape, as it seeks to protect trees with significant amenity value to the public realm. The retention and enhancement of hedges and trees, is likely to have positive effects on community and wellbeing, as green and open space is protected. In addition, air quality in and around Cambridge City Centre has been identified as a key issue, and this option is likely to contribute to improved air quality. Positive effects may also result with respect to flood risk, as protecting trees will contribute to enhancing natural flood risk management infrastructure.
84	General Pollution policy	↗	?	↔	↗	↔	↔	↔	?	↗	↗	↗	↗	↗	This option will help protect against pollution and should contribute positively to identified issues relating to health, well being, and water resources. This option is also likely to improve the quality of the environment more generally across the city while maintaining a safe environment for residents and visitors, in terms of minimum levels of illumination, for example.
85	Air Quality Policy	↗	?	↔	↔	↔	↔	↔	?	↗	?	?	?	?	By preventing developments that would have potential adverse effect on air quality or result in impacts on their users due to the AQMA, this option should help contribute to improved community health and well being benefits. This option is likely to have a positive effect in the City Centre in helping mitigate any further deterioration in air quality in the existing AQMA. This option's proposal that developments with the potential to cause an AQMA should be declared may help to reduce the risk of a further decrease in the city's air quality.
86	Noise Policy	↗	?	↔	↔	↔	↔	↔	?	↗	↗	↗	↗	↗	By reducing and mitigating the noise impacts of new developments and/or locating in consideration of noise sensitive receptors this option is likely to contribute positively to the health

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															and well being of potentially affected people. Thus helping reduce annoyance and helping maintain and enhance local amenity. This option should also help mitigate impacts on noise sensitive biodiversity.
87	Contaminated Land Policy	↗	?	↔	↔	↔	↔	↔	↔	↗	↗	↗	↗	↗	This option looks to ensure that new development is appropriate, given potential sensitivities to adverse effects from pollution, and also that the site is suitable for its new use. It is likely that this will provide health benefits through avoided contact with pollutants.
88	Light Pollution Policy	↗	?	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	↗	By requiring applicants to demonstrate that they have minimised their contribution to light pollution, this option helps to reduce the adverse effects of light pollution, including light spillage. It also maintains appropriate levels for a safe and accessible environment, and helps contribute to local amenity and improved safety. Specific reference to minimising the impact of light on wildlife and the wider landscape should help address key issues relating to Biodiversity and Green Infrastructure issues and Cambridge's Landscape and setting.
89	Visual Pollution Policy	↗	↗	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	This option has the potential to contribute positively to maintaining and improving the quality of the City Centre as a place to live, work and spend leisure time. This option should also help maintain Cambridge as an attractive tourist destination and contribute to promoting an attractive public realm. This option should also help contribute to maintaining the attractiveness of Cambridge's townscape, particularly in Conservation Areas by promoting their individual character and distinctiveness. This option may contribute positively to helping improve the quality of the public realm in various areas of the city, including North Cambridge.
Summary: The options included in 'protecting and enhancing the historic and natural environment' performed well against the majority of the sustainability topic areas. There is some uncertainty over the impact of a number of options. This reflects the difficulties in making firm claims about the wider services that natural and historic assets provide. Option 76 lacks sufficient															

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<p>detail for effective appraisal. It is noted that options have been proposed to provide detail for all of the key issues addressed in the General pollution policy, apart from for Water. This is not considered to have an adverse effect on the Water issues identified in the sustainability framework, as option 58, 'Develop water body quality policy' should adequately address them. Overall, the majority of these options are likely to have a positive effect on the quality of the natural and the built environment across all areas of the City.</p>															

Delivering High Quality Housing

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
90	40% or more Affordable Housing	↗	?	↔	↔	↔	?	?	↔	?	↗	↗	↗	?	Option 90 sets out the same 40% target as is currently found in the Local Plan. This option would continue to support the existing target ^{††††} and subsequently maintain some degree of new affordable housing. Option 91 would support increased delivery whilst Option 92 would support a reduced rate of delivery of new affordable housing. The SHMA projected annual demand for new affordable housing outnumbers recent rates of delivery of all forms of housing. A requirement of 30 or 40% is unlikely to support delivery of meaningful numbers of new affordable housing to help meet the overall need in Cambridge. As such implementing Options 92 or 94 may result in limited positive impacts on community wellbeing due to an under provision of affordable housing. Whilst a lower proportion of affordable housing (30%) may allow other sites, which were not considered by developers to be viable based on 40% affordable housing, to be brought forward, the contribution would be insufficient in relation to the overall need for affordable housing in the City. Option 91 sets out a proportion of 50% or more, which, whilst still delivering significantly fewer affordable homes than are needed, could have a more positive effect on communities. This would be through directly addressing the current need for housing evidenced by the 8,204 applicants currently on the Housing Register (April 2012), and indirectly addressing deprivation. The requirement for such a high proportion may render small to medium size developments unviable (for example between 15-25 dwellings). Therefore this option may need to incorporate some flexibility for smaller sites with viability challenges, to be able to negotiate lower rates of affordable housing. This would be to prevent it resulting in fewer overall homes. The effects on the economy topic are uncertain. Increased affordable housing delivery may reduce
91	Proportion of Affordable Housing - 50% or more	↗	?	↔	↔	↔	?	?	↔	?	↗	↗	↗	?	
92	Proportion of Affordable Housing - 30% or more	?	?	↔	↔	↔	?	?	↔	?	?	?	?	?	

^{††††} More recent affordable completions were 2006-2007 (18%), 2007-2008 (12%), 2008-2009 (22%), 2009-2010 (38%), 2010-2011 (33%). Source: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/7E41D19D-52D6-4FEA-BE92-D3797F3CE854/0/TableH16GrosshousingAffordablecompletions.pdf>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscapel/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
															<p>housing cost income deprivation, however due to the extreme affordability challenges in Cambridge (in 2010 the ratio or multiplier of average house prices to average incomes in the city was 9.2), it is unlikely to address employment deprivation, which is identified as a key issue under the economy sustainability theme.</p> <p>Similarly, the effect on climate change mitigation and heritage is uncertain, as it is contingent on the fact that affordable homes are built to the same design standard as market housing, which is not stated in the options text.</p>
93	Lower Qualifying Threshold for Affordable Housing Provision	↗	?	↔	↔	↔	?	?	↔	?	↗	↗	↗	?	<p>Option 93 is in line with the council's current approach, which requires the provision of affordable housing on new developments that are either on sites of over 0.5 hectares or can deliver 15 or more dwellings. Whilst this approach has contributed to providing more affordable housing in Cambridge, and would therefore have positive effects on community and wellbeing, and potentially on deprivation, there is a still a need to provide more. Option 94 could have a positive effect on communities by addressing the current overall need for affordable housing. However, the requirement of provision on such small/sparse sites may render small to medium size developments unviable. Therefore this option should be implemented where there is good evidence to suggest that it is viable to do so, and would not result in the delivery of fewer homes</p>
94	Maintain Current Threshold for Affordable Housing Provision	↗	?	↔	↔	↔	?	?	↔	?	↗	↗	↗	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
95	Affordable housing contribution from new Student Accommodation	↗	?	↔	↔	↔	?	?	↔	?	↗	↗	↗	?	<p>Requiring affordable housing under option 95 would respond to the existing demand and need for increased provision. This would contribute positively to community and wellbeing through the increased delivery of affordable housing, and potential benefits in terms of reducing deprivation. However, there is an important need for student accommodation, as it is key to supporting the university, which helps Cambridge retain its position as one of the UK's most competitive cities. In light of this, Option 97 may have an adverse effect on viability of proposals for student accommodation and in turn lead to fewer proposals for student accommodation. This could exacerbate the existing pressure on the city's housing stock, to house students outside student accommodation.</p> <p>Option 96 has uncertain effects on wellbeing, as whilst it would not result in an increase in affordable housing provision, it is likely to ensure continued provision for student accommodation with a subsequent release of pressure on the existing housing stock.</p>
96	No affordable housing contribution from new Student Accommodation	?	↗	↔	↔	↔	?	?	↔	?	?	?	?	?	
97	Specified Tenure Mix	↗	↔	↔	↔	↔	↔	↔	↔	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
98	Tenure Mix	↗	↔	↔	↔	↔	↔	↔	↔	↗	↗	↗	↗	?	ensure advice on tenure requirements is clearly set out. The Council could however, consider including wording to clarify the definition of Affordable Housing, relative to the revised national definition, to include affordable rent.
99	Institutions / employment related housing	↗	↗	↗	↔	↔	↔	↔	↔	↗	↗	↗	↗	?	By supporting the provision of housing, this option could have a significant positive impact by helping deliver more housing in Cambridge, and by supporting vital services that can influence health and wellbeing. Economic effects could also be significantly positive, as the housing needs of institutions who contribute to the Cambridge high technology economy can be addressed specifically. Provision of key workers in more central locations may reduce the use of the private car in some instances. The city centre will potentially gain significantly benefits as extra housing provision may allow it to capitalise on opportunities for growing business sectors. Housing support for key staff may also assist employers in the wider city, contributing to reducing deprivation in the North, South and East Cambridge areas.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
100	Housing Mix – General Policy (set out that a mix of dwelling sizes and types will be required on sites providing new housing)	↗	↔	↔	↔	↔	↔	↔	↔	↗	↗	↗	↗	?	Maintaining the current approach set out in Option 100 would enable flexibility to adapt to any future changes in housing requirements through the SHMA. This may have a positive effect on community and wellbeing, as it would continue to encourage mixed and balanced communities with social cohesion. A general policy allows for factors such as the character of an area, site characteristics, and the market and housing need to be taken in account when determining the appropriate housing mix for a site. Whilst enabling the Council's to exercise more control over the mix of housing sizes and types to be achieved on sites providing new housing, Option 101 is much less flexible and would therefore potentially become out of date as local circumstances change. The Housing Strategy and Affordable Housing SPD could be used to set out requirements for housing mix.
101	Housing Mix – Specific Levels Policy (specify the mix of housing sizes and types to be achieved)	↗	↔	↔	↔	↔	↔	↔	↔	?	?	?	?	?	
102	No specific density policy or requirements – design led approach	?	?	?	↔	↔	?	↘	↔	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
103	Establish minimum threshold densities in the city centre	↗	?	?	↔	↔	?	↘	↔	?	↗	↗	↗	?	Establishing a minimum density requirement in the City centre, as set out by Option 103, may contribute to maintaining and improving the quality of the centre by making the best use of existing services and public transport links, and by increasing the viability of sustainable transport through a reduction in average journey lengths. However, a minimum density may lead to developers maximizing development opportunities, which could have a detrimental effect on the historic character of the city centre. Outside of the centre, proposals would be judged on a case-by-case basis, taking into account contextual criteria, which could benefit some of the more deprived areas identified in Cambridge.
104	Establish a minimum threshold of average net density within 400m of district and local centres on high quality public transport routes and transport interchanges	↗	↗	↗	↔	↔	?	↘	?	↗	↗	↗	↗	?	Option 104 is likely to have a positive effect on communities that fall within the areas the Option covers (e.g. District and Local Centres), on the basis that 'walkable neighbourhoods' are typically based on a 400m (5 minute walking time) catchment, which this option would enable. Subsequently a positive effect on sustainable transport could be expected as journey lengths are minimised. The option would promote efficient land use and is likely to support existing local facilities, with further benefits for the local economy. It should however be noted that the option would not leave opportunities for context driven design and could therefore result in character changes to existing areas that are typically low density.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
105	Minimum density of 30dph for all new development sites	?	?	↗	↔	↔	↗	↘	?	?	?	?	?	?	<p>There is potential to combine options 104 and 105 to maximise the resulting benefits. This would include a minimum average density threshold within the City Centre boundary, a minimum threshold within 400m of District and Local Centres (on transport routes) and for areas outside this, proposals would be judged on a case-by-case basis.</p> <p>Applying a blanket minimum density for all new developments would ensure the efficient use of land, and flexibility to have higher densities at appropriate sites. This may contribute to reducing carbon emissions through shortened journey lengths and the subsequent increased viability of sustainable transport modes. However, the Option 105 does not take into account specific context or allow for a design driven approach. This could result in sustainable locations that are suited to higher densities, e.g. the City Centre or areas around District and Local Centres not being optimised. Conversely, it does not allow for one-off low density development if required in specific circumstances, which could adversely affect areas for example those containing heritage assets.</p>
106	Minimum standards based on the level of occupancy	↗	?	↔	↔	↔	?	↔	↔	↗	?	↗	?	?	<p>Option 106 is likely to ensure that the design and size of new homes will meet the needs of the existing and future population. Its focus on standards based upon bedspaces over bedrooms offers a more meaningful metric than bedrooms alone. Dwellings of a more suitable size may allow older people wishing to downsize an increased opportunity to do so. The London Housing Design Guide sets out space standards based on occupancy, in line with Option 106. These new mandatory minimum space standards are intended to ensure that all new homes in London are fit for purpose and offer the potential to be occupied over time by households of all tenures. Option 106 is therefore likely to significantly increase the quality of the city centre as a place to live. However, this option could affect the viability of some constrained development sites. Option 107 offers a less fine grain approach to improved space standards, based around the type of dwelling. Whilst this approach will likely deliver lower standards of design and size in comparison to option 106, it may</p>
107	Minimum space standards based on a range of dwelling types	↗	?	↔	↔	↔	?	↔	↔	↗	?	↗	?	?	<p>Option 107 offers a less fine grain approach to improved space standards, based around the type of dwelling. Whilst this approach will likely deliver lower standards of design and size in comparison to option 106, it may</p>

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108	Minimum space standards for private outdoor amenity space only.	↘	?	↔	↔	↔	?	↔	↔	↘	?	↘	?	?	<p>reduce the burden placed on developers. Improved standards will nonetheless potentially result in some constrained sites being undevelopable.</p> <p>By specifying no space standards, as in option 110, there would be no further requirements placed on developers. This may boost the provision of affordable and intermediate housing. However, it is likely that this approach would lead to a negative effect on the design and size of new homes. This may make successful communities less likely within the urban extensions of South Cambridge (as identified in the scoping report) and potentially reduce the quality of the city centre as a place to live.</p> <p>By providing space standards for private outdoor amenity space, this option will potentially enhance open space provision citywide, with the possibility of associated gains in well being. It may result in some sites being undevelopable due to space constraints, with a potentially negative effect on affordable and intermediate housing provision. It may significantly improve the quality of the city centre as a place to live. Option 109, would encourage developers to provide an area of outdoor amenity space. However, this option does not provide specific space standards. This openness to interpretation makes the effect of this option uncertain across all relevant sustainability topics.</p>
109	General provision of private outdoor amenity space	↗	?	↔	↔	↔	↔	↗	?	↗	↗	↗	↗	↗	
110	No space standards specified.	?	?	↔	↔	↔	↔	?	?	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
111	Lifetime homes standards applied to all new housing developments	↗	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	<p>All Options would contribute towards addressing the pressing need to ensure the design and size of new homes meet the current and future needs of Cambridge’s population, which is of growing importance as people live into older age, with higher rates of disability, as older people survive longer e.g. following a stroke or CHD. While the Government’s strategy requires all new housing built with public funding to meet the Lifetime Home standard it is for Cambridge to decide to what extent this standard should apply to new private housing development. Option 111 would achieve a significant increase in the supply of more flexible and adaptable housing, providing increased choice of housing, regardless of age or disability. However, the Lifetime Homes standards may reduce viability and so reduce the volume of housing delivered.</p>
112	A proportion of new homes to meet lifetime homes standards	↗	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	<p>Option 112 will maintain current rates of Lifetime Homes, increasing overall supply to meet the needs of older and disabled people. There is a risk that developers’ decisions on the size and location of the Lifetime Homes standards could reduce open market housing options e.g. for families with disabled household members seeking a larger house, if it is mainly 1 or 2 bed apartments built to Lifetime Home Standards. Likewise, there is a risk that, without specifying otherwise, developers could meet their obligation entirely within Affordable Housing type housing. This would fail to improve choice for older and disabled people seeking housing within the market sector.</p>

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113	A proportion of new homes that meet the Wheelchair Housing Design Standard	↗	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	Option 113 would help deliver greater housing choices to wheel chair users. The 10% requirement adopted in London provides a benchmark guide for the proportion needed. The Option would be strengthened by stating that provision should be across a range of house sizes, to meet the needs of a range of households of differing sizes with one or more wheelchair using household members. This option (113), alongside a policy requiring a higher proportion of Lifetime Home Standards, would enhance the range of housing suited for an ageing population and the specific needs of older and disabled people. A combined policy would need to be clear on whether the Wheelchair provision should be on top of Lifetime Home requirements or within Lifetime Home Standards requirements.
114	Criteria based policy for small scale residential development and infill development in the rear of gardens	?	↔	↘	↔	↘	↘	↔	↘	?	?	?	?	?	This Option is likely to help increase delivery of much-needed new housing in Cambridge. However, this is likely, depending on location, to be at the cost of biodiversity and green infrastructure, flood risk including climate change adaptation, and landscape. However, in areas of existing low density development or where existing buildings are demolished, this policy could potentially achieve new housing without compromising sustainable communities. Potential adverse effects of this Option would be most acutely felt in areas already experiencing significant pressure on green space within the urban area. This Option is likely to increase pressures on levels of personal car use, including

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115	Policy to restrict infill development in rear gardens	?	↔	?	↔	?	?	↗	↗	?	?	?	?	?	<p>pressures on car parking,</p> <p>This Option should consider requiring any infill developments to be car free and provide adequate provision for cycle parking in line with that proposed in Options 192 and 195, except in exceptional circumstances (e.g. to enable provision for dedicated car parking for a wheelchair accessible home).</p> <p>The Option to restrict infill development (115) would potentially restrict the potential delivery of much needed housing, although the wording to require 'very specific local circumstances' suggests this option would be developed to minimise its application. It would help contribute positively to addressing many sustainability issues relating to biodiversity and green infrastructure and maintaining local townscape. This Option would still support development. The extent to which this Option would affect Transport, Flood Risk, Climate Change and particular areas is uncertain due to lack of detail.</p>
116	Criteria based policy for HMOs	↗	↔	?	↔	↔	?	?	↔	?	?	?	?	?	<p>Option 116 is likely to contribute positively to Communities and Well Being issues helping provide additional accommodation while ensuring criteria to minimise the potential adverse impacts on neighbouring residential amenity. Option 116 criteria based policy for HMOs would enable HMOs to continue to address a proportion of the affordable housing needs of students, young people and small households reliant on welfare for housing, including those affected by welfare reform challenges to affordability. Criteria should enable actual and perceived threats to amenity to be managed. Where high concentrations of HMOs in an area arise, the Option 116 may be inadequate to address these amenity concerns.</p>

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117	Specialist Housing	↗	↔	↗	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	<p>This Option will positively contribute to addressing key issues identified in the Communities and Well being Topic. In particular, it will support the provision of accommodation for the existing and future population, including older people, disabled people, including those with learning or mental health conditions and those in poor health. Specific consideration to the proposal's provision of suitable and safe amenity space and its proximity to local shops, services and community facilities should support residents' well being and provide easy access to sustainable forms of transport. However, there is a risk that these criteria, if imposed inflexibly, could be used as a means of resisting location of specialist housing in neighbourhoods, restricting options for the location of such provision unfairly, especially where the intended usage is to house particular groups, e.g. young people on remand, people with mental health conditions.</p>
118	Opportunities for providing new housing	↗	↔	↔	↔	↔	↔	↔	↔	↔	?	?	?	?	<p>This Option cannot be effectively appraised as it is not an Option per se, but an option on whether there should be a policy or not. It is assumed that this Policy would aim to maximise the provision of new housing while ensuring it does not lead to the loss of family accommodation; and that any proposal is built to Decent Homes Standards and Housing Health and Safety Rating System, and would not lead to overcrowding. In this case this Option would help ensure the size and design of new homes are appropriate to the existing and future population and reduce housing pressure on other land uses, such as open space; thus helping to contribute positively to the Communities and Well Being Issues. The extent to which this Option would affect different areas in Cambridge is uncertain.</p>
119	Criteria based policy for the location of Gypsy and Traveller sites	↗	↔	↗	↔	↗	↗	↗	↔	↔	?	?	?	?	<p>This Option is likely to lead to positive effects on a number of Sustainability Topics. The Options specific reference to provision of site(s) within easy access to local services and play and residential amenity spaces should help contribute positively to addressing a number of the Community and Well Being issues. Recognition of flood risk, site contamination and noise would also help address Community and Well Being issues and ensure account for the potential environmental, economic and social cost of flooding both now and in the future. Including criteria to protect local amenity</p>

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															through appropriate landscaping should help maintain and/or improve the appearance and character of the local area. The extent to which this Option would affect different areas of Cambridge would depend on site specific proposals. However, these criteria should be applied in a manner and to a degree that is consistent with that for other forms of new accommodation, to avoid unreasonably discriminating against Gypsies and Travellers in the allocation of new sites, given the significant need for accommodation and the health and wellbeing costs arising from existing under-provision.
120	Residential Moorings	↗	↔	↔	↗	↗	↔	↔	↗	?	↗	↗	?	?	Residential moorings have the potential to make a limited contribution to increased housing supply, and when coupled with this option to ensure adequate services, access, and the protection of amenity, should contribute positively to communities and wellbeing. Criteria to ensure that the ecological value of waterways is maintained should positively influence biodiversity and protect water quality. Flood risk management of moorings will bring benefits, potentially helping to address flood risk issues in North and South Cambridge.
<p>Summary:</p> <p>The housing options proposed result in a combination of positive, negative and uncertain effects against the issues highlighted in the sustainability framework. Given that the SHMA projected annual demand for new affordable housing outnumbers recent rates of delivery of all forms of housing, the 50% target, set out under Option 93 for affordable housing provision, is most likely to have a positive effect on communities through addressing housing need. However, to prevent the option resulting in fewer overall homes, it may need to incorporate some flexibility for smaller sites with viability challenges to be able to negotiate lower rates of affordable housing. Similarly, lowering the qualifying threshold for affordable housing provision, as set out under Option 95 could have a positive effect on communities by addressing the current overall need for housing. Although Option 97 would contribute positively to an increased delivery of affordable housing, there is an important need for student accommodation in Cambridge and the Option could have an adverse effect on viability of proposals for student accommodation, leading to fewer proposals for student accommodation. This could exacerbate the existing pressure on the city's housing stock, to house students outside student accommodation. The appraisal indicates that whilst Option 99 would make the Council's position on tenure requirements clear, it would potentially become out of date as local circumstances change. Under Option 100 the Housing Strategy and Affordable Housing SPD could be used to ensure advice on tenure requirements is clearly set out. The council could also consider including wording to clarify the definition of Affordable Housing, relative to the revised national definition, to include affordable rent. In light of the</p>															

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<p>Options proposed for density, there is potential to combine options 105 and 106 to maximise the resulting benefits, e.g. a positive effect on sustainable transport as journey lengths are minimised. This would include a minimum average density threshold within the City Centre boundary, a minimum threshold within 400m of District and Local Centres (on transport routes) and for areas outside this, proposals would be judged on a case-by-case basis. Applying a blanket minimum density for all new developments resulted in few positive effects against the issues in the sustainability framework.</p>															

Building a Strong and Competitive Economy

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/landscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
121	Building a Strong and Competitive Economy	?	↗	?	↔	↔	↔	↔	↔	↗	?	?	?	?	This Option should help maintain the City's position as one of the UK's most competitive cities by capitalising on its existing strengths in higher education, research and knowledge based industries. The city centre is likely to benefit from the focus on strengthening its retail and tourism offering. The extent to which it will reduce education and employment inequalities and manage potential growth in transport is unclear.
122	Continue with Selective Management of the Economy Unamended (employment uses that have an essential need for a Cambridge location or provide a service for the local population are given positive support)	?	↗	↔	?	↔	↔	↔	↔	↗	?	?	?	?	It is not clear the extent to which the Selective Management Option is responsible for Cambridge's historic and current economic success. However, it is likely that this Option would contribute positively to Cambridge's economy and City Centre. The amended selective management Option should provide additional flexibility, also capitalising on contribution to the local economy from high tech industries which is not currently realised. A market based approach would free up investment in new employment land and may result in a more efficient use of employment space. However, this approach may not be the most economically efficient for the city as a whole.
123	Amend Selective Management of the Economy to include some	?	↗	↔	?	↔	↔	↔	↔	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
	additional uses														
124	Discontinue the policy of Selective Management of the Economy	?	?	↔	?	↔	↔	↔	↔	?	?	?	?	?	
125	Continue with Protection of Industrial and Storage Space Unamended	↗	?	↗	↔	↔	↗	↔	↔	?	?	?	?	?	Option 125 should contribute positively to ensuring a diversity of work opportunities with good transport accessibility. However, it will be important to ensure that protection status should match the identified need.
126	Amend the policy of Protection of Industrial and Storage Space by deleting all protected sites	?	↗	?	↔	↔	?	↔	↔	?	?	?	?	?	Applying a city wide approach (Option 126) to protection of industrial storage space would enable a more efficient use of available land while still offering a degree of protection through the use of existing criteria. Option 126 could help deliver higher levels of low skilled job opportunities compared to Option 125 helping address issues relating to income and employment deprivation.
127	Amend the policy of Protection of Industrial and Storage Space to encourage other forms of employment	↗	?	?	↔	↔	?	↔	↔	?	?	?	?	?	Providing additional flexibility based on specific criteria which would address the mis-application of Option 125 (this policy has not succeeded in preventing the loss of industrial floorspace in the past) should provide greater opportunities to address community and well being and economy related issues, particularly whereby criteria allow change of use to reduce employment inequalities.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
	development														
128	Do not protect office space	?	?	↔	?	↔	?	↔	↔	?	?	?	?	?	There is likely to be a medium term shortage of office space in Cambridge. By not protecting office space this situation could be exacerbated. The extent to which this would impact the Cambridge economy is not clear and would depend on the value added by other proposed uses.
129	Protect office space	?	↗	↔	?	↔	?	↔	↔	?	?	?	?	?	
130	Continue to promote cluster development	↔	↗	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	This Option should help to facilitate development and support Cambridge as an internationally recognised high tech centre where it is used. However if it were to be discontinued is unlikely to have any significant effect on the sustainability topics due to the infrequency of its application.
131	Do not promote cluster development	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
132	Promote social shared spaces (involving a mix of uses in employment areas)	?	?	↔	↔	↔	↔	↔	↔	↗	?	?	?	?	The promotion of social spaces involving a mix of uses could potentially contribute to a diverse economic and social mix through provision of a variety of employment / social spaces tailored to particular local need. Provision of attractive shared social spaces could help reduce pressure on city centre office space. Whether the attractiveness of peripheral employment sites will improve with time is not known, and the likely success of this Option on meeting sustainability objectives is unclear without further detail on what form the shared social spaces could take.
133	Do not promote shared social spaces	?	↗	↔	↔	↔	↔	↔	↔	?	?	?	?	?	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
134	Densify existing employment areas	↗	↗	?	↔	↔	↗	↗	↗	↗	?	?	?	?	Cambridge faces significant development constraints and opportunities to maximise the sustainable development of employment sites should be pursued. Densification would likely result in reducing pressure on Cambridge's landscape/townscape and green infrastructure. Through increasing density in peripheral employment sites, this Option would also enable greater opportunities to develop inclusive and attractive shared spaces on employment sites. Concerns regarding change of use as a consequence of densification could be mitigated by applying protective criteria. Densification of employment sites is likely to increase the viability of new sustainable transport provision but overall, could also contribute to greater pressure on surrounding transport infrastructure. This Option (135) could result in reduced opportunities to develop more social spaces due to increased pressure on land values.
135	Do not densify existing employment areas	↘	?	?	↔	↔	?	?	↘	?	?	?	?	?	
136	General shopping policy that applies to all centres	↗	↗	↗	↔	↔	↔	↗	↔	?	?	?	?	?	This Option, based on existing policies would likely result in consent of similar shopping provision as provided to date. Although this would provide greater support for diversity of shopping provision by restricting change of use from small shops to larger units and requiring that large shopping developments provide a proportion of small shops. Furthermore, the encouragement of housing development on upper floors should contribute to meeting the City's housing shortage and provision of smaller (1/2 bed) homes. This Option (137) would provide the opportunity to tailor change of use criteria appropriately at the City, District and Local centre level; thus helping better address their different requirements more effectively. In particular this approach could protect and support provision of convenience shopping in district and local centres, an identified sustainability issue. Meeting local need more effectively should help reduce the need to travel and help mitigate climate change impacts.
137	Separate policy options for different types of centre	↗	↗	↗	↔	↔	↗	↗	↔	↗	↗	↗	↗	↗	
138	Neighbourhood Shops (protection)	↗	?	↗	↔	↔	↗	↗	↔	↗	↗	↗	↗	↗	Neighbourhood shops provide essential community services, particular for those with limited

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	of individual shops or small groups of shops not in an identified centre)														mobility and can add to the identity and character of an area. They also limit the need to travel helping reduce transport related emissions. Should market forces result in neighbourhood shops found outside identified centres becoming unviable economically, change of use criteria could facilitate change to alternative uses in exceptional circumstances, where sufficient evidence is available.
139	No policy on neighbourhood shops	?	?	?	↔	↔	↔	?	↔	↔	?	?	?	?	This Option (139) represents the status quo. Evidence indicates neighbourhood shops are being lost to other uses such as housing. The extent to which this would impact local community and well being, economy, transport and local distinctiveness/character is unclear.
140	New foodstore in NW Cambridge	↗	↗	↗	↔	↔	↗	?	↔	↔	↗	↔	↔	↗	There is an identified need for improved provisions of convenience shopping in North West Cambridge which this Option should address. This provision is likely to reduce the need for local residents to travel by private car to access other foodstore at more distant locations helping mitigate climate change impacts. This should also help improve air quality along routes into the city centre improving local amenity. The Option's requirement that the foodstore should be designed to integrate within local centres should help preserve local townscape character.
141	Convenience Shopping (location and scale of associated developments)	↗	↗	↗	↔	↔	↗	↔	↔	↗	↗	↗	↗	↗	A Option permitting only small scale development of further convenience floorspace and potential restrictions on the amount of non-food (comparison) good sold in food stores may help ensure a variety of offerings, meeting the needs of all communities. It is also likely to maintain local competitiveness and safeguard the diversity of independent shops. All areas of Cambridge would benefit from this Option.
142	Retail Warehousing (limits any further retail warehouse	↔	?	↗	↔	↔	↗	↔	↔	?	↔	↔	↗	↔	Restricting further retail warehousing to bulky goods should, in the longer term, help restrict the further development on Newmarket Road of stores that would otherwise be found on the high street. This Option should not increase traffic levels along Newmarket Road which is already very congested. The effect of this Option on the city centre is unclear and would be dependent

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	development)														on criteria for demonstration of 'significance' and assessment of potential cumulative impacts from multiple developers.
143	Continued development and redevelopment of the University of Cambridge's Faculty sites	↗	↗	↗	↔	↗	↗	↗	↗	↗	↗	↗	↔	?	The University of Cambridge is a vital driver of the Cambridge economy. This Option's approach to supporting the University in developing and redeveloping should help positively contribute to the sustainability objectives. In particular the Option should provide a balanced approach to development in addressing economic, social and environmental issues. At this stage it is not possible to appraise how this Option would contribute to maintaining open and green space and the character of the built environment in West Cambridge, identified key sustainability issues.
144	University of Cambridge Staff and Student Housing (continue existing policy allocating new sites and new provision)	↗	?	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	Option 144 should help maintain a greater sense of community and improved well being through provision of accommodation in close proximity to their colleges, while, protecting family residential accommodation. The extent to which the potential restriction on growth on the Cambridge economy is unclear. Cambridge faces a potential shortfall in student accommodation provision. While providing additional rooms at satellite residences would deliver a higher number of available student accommodation compared to new colleges, this approach (145) needs to be balanced against the importance of college facilities, such as pastoral and communal facilities being in close proximity, and the value they add to the college community. The economic benefit of additional accommodation is unclear.
145	Expand existing colleges rather than plan for new College's at North West Cambridge	?	?	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
146	Anglia Ruskin University – Faculty Development	↗	↔	↗	↔	↔	↗	↗	↗	↔	?	?	?	?	This Option provides a flexible approach to meeting the needs of Anglia Ruskin University and correspondingly conforms well to the sustainability topics. In particular, permitting development of a satellite campus would require a number of environmental criteria to be met including a

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															green and connected location combining a number of sports and social infrastructure helping support a healthy student community.
147	Anglia Ruskin University – Support for Student Hostel Development with affordable housing exemption	?	?	↘	↔	↔	↘	↔	↔	↔	↔	↔	↔	↔	This Option (147) could result in the provision of much needed student accommodation for ARU, but potentially at the expense of affordable housing. Overall it is unclear how this Option would affect the Communities and Well being Topic. Indirectly reducing the provision of affordable housing results in University Staff having to travel large distances leading to pressures on transport infrastructure and GHG emissions.
148	Anglia Ruskin University – Support for Student Hostel Development but removal of affordable housing exemption	?	?	↗	↔	↔	↗	↔	↔	↔	↔	↔	↔	↔	This Option (148) should result in greater provision of affordable housing for key workers, reducing their need to travel and helping mitigate GHG emissions. However this would be to the financial cost of accommodation to ARU students. The effect of this Option on ARU’s finances and the local economy is uncertain.
149	Speculative Student Hostel Accommodation – limited to Anglia Ruskin University and the University of Cambridge	↗	↔	↗	↔	↔	↗	↗	?	?	?	?	?	?	This Option should help towards meeting the need of additional student accommodation for ARU in a sustainable manner. In particular with regards to reducing car ownership by restricting car use to those with an identified need and ensuring developments are of an appropriate size set within high quality environments which will help meet community, landscape and biodiversity objectives. In addition to comments above, Option 150 should also help reduce inequalities in educational

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150	Speculative Student Hostel Accommodation – widened to include other established educational institutions	↗	↔	↗	↔	↔	↗	↗	↗	?	?	?	?	?	achievement across the non-university sector. This Option would increase pressure on the local housing market.
151	Specialist colleges such as secretarial and tutorial colleges	?	↗	↔	↔	↔	↔	↔	↔	?	?	?	?	?	Allowing the expansion of language schools/specialist tutorial colleges will help capitalise on the value that that these colleges contribute to the local economy. It is not clear how the expansion (including providing residential accommodation) would add to local housing pressures. The impact on different topic areas would depend on the location of the language school/specialist tutorial college.
152	Language Schools (relax the current policy restrictions if they can provide accommodation to support associated growth)	?	↗	?	↔	↔	↔	↔	↘	↘	?	?	?	?	Relaxing planning policies on the expansion of permanent language schools will add to existing housing and accommodation pressures in Cambridge. Furthermore, additional student numbers would place additional pressure on local transport infrastructure, the city centre and open spaces during peak months. However, this Option (152) would help capitalise on the economic benefits that these schools bring to the local economy, including directly to local residents who provide home stay and similar accommodation
153	Additional Hotel provision based on a high growth scenario of around 1,800 new bedrooms	↔	↗	↗	↔	↔	↗	↗	↔	↔	↔	↔	↔	↔	Option 153's flexible approach to delivery, steered by monitoring and managing, should help ensure the right sort of hotel provision in the right location at the right time. This approach should help reduce the impact on transport infrastructure and contribute to the local economy. Option 154's reduced flexibility to address the mismatch between supply and demand is likely to increase the tourism industry's impact on the City's transport infrastructure. In addition, the

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154	Additional Hotel Provision based on a medium growth scenario of around 1,300 new bedrooms	↔	↘	↘	↔	↔	↘	↔	↔	↔	↔	↔	↔	↔	potential that the industry could contribute to the local economy may not be fully realised.
155	Location of New Hotels	↔	↗	↗	↔	↔	↗	↔	↔	↗	?	?	?	?	This Option should contribute to the local economy by encouraging growth of tourism while also including requirements to encourage visitors to use sustainable forms of transport. Providing guidance on the type of hotel and location could help match provision with anticipated need – business hotels at business parks for example.
156	Support the development of existing City Centre hotels and conversion of suitable City Centre properties to Hotels	↔	↗	↗	↔	↔	↗	↗	↔	↗	↔	↔	↔	↔	Support for the repositioning/redevelopment of existing hotels and other premises for hotel uses in the City Centre would represent a sustainable growth option for hotel provision and help contribute positively to the economy; while reducing the risk of the need to compete with higher value uses on other sites such as for housing. This Option would also help reduce pressures on transport infrastructure and reduce the reliance on the private car due to its likely application in the city centre. A criteria led approach will ensure that developments are sensitive to their surroundings.
157	Treat Serviced Apartments as Hotel uses	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	This Option is unlikely to have any effect on the sustainability objectives.
158	Prevent the change of use of permanent residential	↗	?	↔	↔	↔	↔	↗	↔	↔	↔	↔	↔	↔	This Option should help reduce pressure on housing availability and help maintain the character and distinctiveness of residential areas in Cambridge. However, it may limit the economic potential of these properties and help support the tourist industry.

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	accommodation to a use for short term letting														
159	Consider using licensing to regulate serviced apartments rather than planning policy	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	This Option is unlikely to have any effect on the sustainability objectives.
160	Retention of Hotels in the City Centre	↔	↗	↗	↔	↔	↔	?	↔	↗	↔	↔	↔	↔	Option 160 will support the growth of tourism while minimising its impact on the city's transport infrastructure through reducing the need to travel. The potential impact of budget hotel supply on Cambridge's townscape is unclear and would be dependent on the hotel's design and scale and its appropriateness in the historic environment. Greater budget accommodation in the City centre may provide an economic incentive for longer stays in the City rather than staying outside the City and travelling in for day trips. Option 161 may result in the loss of existing tourist accommodation to the detriment of this industry, while also resulting in increased pressure on existing transport infrastructure due to more day trips and visitors staying outside the City and travelling in. This Option is likely to contribute to poorer air quality and increased GHG emissions unless greater access to frequent public transport is provided. It is unclear how the effects of this Option would result in changes to the historic environment as this would be determined by the design and scale of any new/replacement development.
161	Do not include a policy to retain Hotels in the City Centre	↘	↘	↘	↔	↔	↘	?	↔	?	↔	↔	↔	↔	
162	Visitor attractions policy	↔	↗	↗	↔	↔	↗	↔	↔	↔	↔	↔	↔	↔	This Option should help support the sustainable growth of tourism and also help ensure greater access to frequent public transport to access alternative attractions. Consequently this should

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				↗											result in reduced transport related emissions.
<p>Summary:</p> <p>The Options presented in 'Building a strong competitive economy' perform well against the sustainability objectives, in particular relating to the economy and transport topics. The Options present a balanced approach to managing economic growth while recognising, and where possible mitigating, its impact on already constrained transport infrastructure. The Options address many of the key sustainability objectives identified within the Economy Topic including the need to protect office space which should ensure provision for growing high-tech and R&D businesses; addressing the loss of industrial floorspace; and encouraging more sustainable growth of tourism; and provision of convenience shopping in North West Cambridge.</p>															

Promoting Successful Communities

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/landscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
163	A green and pleasant City with vibrant and culturally diverse neighbourhoods	↗	↗	↗	↔	↔	↔	↗	↗	↗	↗	↗	↗	↗	<p>This Option is likely to have significant positive effects against the majority of the sustainability topics. Specific reference to the need to protect and enhance community, and other cultural facilities should help provide opportunities to capitalise on the City's vibrancy and diversity.</p> <p>The reference to open spaces supports several of the sustainability themes including flood risk, climate change adaptation and mitigation, landscape, biodiversity and community well being.</p> <p>Specific reference to contributing to the character and appeal of Cambridge should ensure that Cambridge remains an attractive destination.</p>
164	Protection of open space	↗	↔	?	?	↗	?	↗	↗	↗	↗	↗	↗	↗	<p>Protecting Cambridge's network of open spaces is likely to contribute positively towards the majority of the sustainability topics. In particular, maintaining access to high quality green and open spaces has been identified as a key issue across all of Cambridge. Protecting open space and limiting development that could harm the character of open spaces should help increase the amenity and attractiveness of these areas as places for recreation. This Option should also help encourage greater uptake of walking/cycling as a means of transport, which will have wider health benefits.</p>
165	Update the standards in line with the Open Space and Recreation Strategy (2011)	↗	?	?	↔	↗	?	?	↗	↗	↗	↗	↗	↗	<p>Compared to retaining the current standards (166), updating the standards for provision of open space and recreational facilities in new development (165) is likely to result in significant benefits against the indicated sustainability topics. Option 165's application of the allotment standards to all residential development in Cambridge, as opposed to urban extensions only, and the Option's proposed increase in informal open space provision, is likely to help address a number of key health and well being issues. Furthermore Option 165 should also contribute to maintaining and</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
166	Maintain the current standards for open space and recreation provision	↗	?	?	↔	↔	?	?	?	↗	↗	↗	↗	↗	enhancing access to open space across all areas in Cambridge.
167	Onsite provision	↗	↔	?	↔	?	↔	↗	↗	↗	↗	↗	↗	↗	The provision of open space on-site, as opposed to financial contributions, will ensure that new and existing communities benefit from open spaces in their local areas. This will have a significant positive effect across Cambridge where maintenance and access to open space has been identified as a key sustainability issue. By taking into account the appropriateness of the provision given the nature, location and scale of the development, this Option should result in the delivery of sites that are sensitive to the character and distinctiveness of Cambridge's built environment. Onsite provision would have potential benefits for biodiversity and improved green infrastructure, and could potentially contribute to reducing flood risk.
168	Protection of existing leisure facilities	↗	↗	↗	↔	↔	↗	?	↔	↗	↗	↗	↗	?	This Option should help protect and enhance leisure facilities and is also likely to help improve the health and wellbeing of residents. In addition it should contribute to reduced inequalities in health through improved accessibility. Providing protection to leisure facilities will help address the potential loss of these to alternative development. Providing accessible leisure facilities will help minimise the need for people to travel helping reduce transport related GHG emissions and associated air quality impacts.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
169	New leisure facilities: existing policy	↗	↗	?	↔	↔	?	?	?	↗	↗	↗	↗	?	Supporting new and improved leisure facilities will have benefits for communities and wellbeing, and improve accessibility and help reduce inequalities in health within Cambridge. By ensuring new facilities are to be an appropriate scale to the locality will help ensure the scale of development is sensitive to character and distinctiveness of that local area and help protect the City's townscape.
170	Protect existing community facilities	↗	?	?	↔	↔	?	?	?	↗	↗	↗	↗	?	This Option will ensure continued protection of existing community facilities and contribute significantly to addressing key community health and wellbeing issues. Only where comprehensive evidence is demonstrated would this Option allow redundant community facilities to be redeveloped into other uses. This should minimise any potential adverse impact on local communities and add another level of protection against the loss of community facilities to other uses. The protection of existing facilities should help reduce the need for people to travel and enabling more people to access facilities by walking and cycling.
171	Public Houses: Market led approach	↘	↘	↔	↔	↔	↔	↘	↔	?	↘	↘	↘	↘	Not protecting public houses in Cambridge could have a significant adverse effect on community spirit and the vibrancy and vitality of local neighbourhoods. Similarly, this Option could result in a loss in Cambridge's character, and subsequent appeal to tourists. However, allowing the conversion of under used or badly maintained public houses into alternative uses may provide opportunities for local scale redevelopment and contribute to improved public realm.
172	Protection for all public houses	?	?	↔	↔	↔	↔	?	↔	?	?	?	?	?	The protection of all public houses has an uncertain effect against the majority of the sustainability topics. In affording some protection from higher value uses, the positive role of public houses in communities would be maintained. However, it could result in redundant public houses remaining unused, which could perpetuate the existing issue of deprivation in some areas of the City.

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173	Safeguarding Public Houses	↗	↗	↔	↔	↔	↔	↗	↔	↗	↗	↗	↗	↗	Option 176 ensures some protection from higher value uses but offers flexibility where the existing use as a public house is found to be unviable. This is likely to help address issues relating to community and wellbeing through the continued provision of community space, and should help contribute to creating vibrant and inclusive communities. The proposal to undertake pre-application consultation with local residents should help ensure any new use is in keeping with the needs and character of the local area.
174	Extend the Safeguarding Option (No. 176) to former public houses not listed in appendix D	↗	↗	↔	↔	↔	↔	?	↔	↗	↗	↗	↗	↗	By extending Option 176 to include former public houses, Option 177 is likely to help protect the vibrancy and vitality of local areas by maintaining community space provision. The protection of such facilities from higher value uses may bring about a beneficial economic effect, for instance through safeguarding tourism. By using the criteria of Option 176 to assess the need for protection against community requirements, this Option should ensure that protective measures are balanced against the need to tackle deprivation through conversion / redevelopment in certain areas of the City.
175	Allow the flexible re-use of public houses	↗	↗	↔	↔	↔	↔	?	↔	?	?	?	?	?	Option 178 is likely to provide the necessary flexibility for the public housing market to expand as well as contract, resulting in similar effects to Option 177 on community well being and the economy. However, the effect of this Option across the City is uncertain, as it may distort the market by creating too many A-uses and restricting the creation of residential units, which has an uncertain effect on issues such as tackling deprivation.

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176	New community facilities	↗	↗	↗	↔	↔	?	?	?	↗	↗	↗	↗	↗	<p>Support for new and improved community facilities is crucial as demand will increase with population growth. The provision of adequate community infrastructure where there is local need should contribute significantly to protecting and enhancing community provision particularly in wards anticipated to experience population growth, as well as addressing key issues of deprivation and contributing to local vitality. In addition, this Option should reduce the need to travel helping reduce GHG emissions and improve local air quality.</p> <p>The impact of Option 179 on key issues relating to landscape and biodiversity is uncertain and would be dependent on a site by site basis.</p>
177	The provision of community facilities through development	↗	?	?	↔	↔	?	?	?	↗	↗	↗	↗	?	<p>Enforcing the provision of community facilities through development (Option 180) may be a more certain method of delivery, as new facilities would be required where development leads to an increased demand for community facilities. However the timeframe for delivery may be longer than Option 179.</p> <p>Conversely, provision through development may overlook areas in need that do not attract new development.</p>
178	Support for arts and cultural activities	↗	↗	?	↔	↔	?	?	?	↗	↗	↗	↗	↗	<p>Maintaining facilities to support art and cultural activities will help Cambridge retain its position as an important cultural centre. This is likely to have a positive effect on the growth of tourism in the city. Enhancing existing facilities and supporting new opportunities for facilities will also contribute positively to the quality and vitality of the city centre.</p> <p>The impact on landscape and biodiversity is uncertain, as it is dependent on the criteria used to source a suitable location for new facilities. Similarly the impact on transport will depend upon where new facilities are located.</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
179	A new Sub-regional Stadium	↗	↗	?	?	?	?	?	?	↔	?	?	?	?	<p>Providing for a new sub-regional stadium would result in benefits with regards to the provision of community and leisure facilities, and subsequent positive effects on well being in Cambridge. A sub-regional stadium could also create significant positive effects in maintaining Cambridge's position as an economically competitive city, and encouraging the growth of tourism.</p> <p>The impact on landscape and biodiversity is uncertain, as it is dependent on the criteria used to source a suitable location. Similarly the impact on transport could be adverse if the location is not well served by public transport.</p> <p>High design standards should be required to ensure that the development of a new stadium does not have any adverse impacts on the wider landscape / townscape.</p>
180	Ice Rink	↗	↗	?	?	?	?	?	?	↔	?	?	?	?	<p>Providing for an ice rink would result in benefits with regards to the provision of community and leisure facilities, and subsequent positive effects on key well being issues. A sub-regional ice rink could also create significant positive effects in maintaining Cambridge's position as a competitive city, and encouraging the growth of tourism.</p> <p>The impact on landscape and biodiversity is uncertain, as it is dependent on the criteria used to source a suitable location. Similarly the impact on transport could be adverse if the location is primarily accessible by car and measures to increase public transport are not taken.</p> <p>High design standards should be required to ensure that the development of a new ice rink does not have any adverse impacts on the wider landscape / townscape.</p>
181	Concert Hall	↗	↗	?	?	?	?	?	?	?	?	?	?	?	<p>Providing for a concert hall would result in significant positive benefits in providing a range of community facilities for all members of the community. A concert hall used at a sub-regional level could also create significant positive effects in drawing people to Cambridge and helping support its role as one of the UK's most competitive Cities. It should significantly help support the tourist</p>

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	N Cambridge	S Cambridge	E Cambridge	W Cambridge	Appraisal Discussion
															<p>industry and the local economy.</p> <p>The impact on landscape and biodiversity is uncertain, as it is dependent on the criteria used to source a suitable location. Similarly this Option is likely to result in increased transport impacts unless it is easily accessible by public transport, walking and cycling.</p>
<p>Summary:</p> <p>The Options set out for promoting healthy communities primarily result in a positive, or significantly positive impacts on a broad range of sustainability topics, in particular on improving the health and well being of Cambridge residents. Maintaining and enhancing the network of open spaces has been identified as an important issue across Cambridge and should be addressed by the Options proposed. Updating the standards for open space and recreation provision is likely to result in increased benefits compared to maintaining the current standards. Where new development is proposed, for example onsite provision of open space or new recreational and leisure facilities, the selection of a suitable location will determine potential resulting impacts on factors such as water, biodiversity and heritage. The Options covering the protection of existing facilities should help mitigate adverse impacts associated with new development while inclusion of a requirement to build to high quality design standards for recreational and cultural facilities would help minimise adverse impacts associated with the provision of these additional facilities. Many of the effects surrounding the Options to protect public houses remain uncertain. However, Option 176 appears preferable as it ensures some protection from higher value uses but offers flexibility where the existing use as a public house is unviable.</p>															

Promoting and Delivering Sustainable Transport

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
182	Timely provision of infrastructure	?	↗	↗	↔	↔	?	?	?	?	?	?	?	?	The commitment made by this Option to provide the infrastructure necessary to meet the needs of new development and regeneration is likely to have a positive effect on identified economic issues including to address pockets of income and employment deprivation and to help maintain Cambridge as one of the UK's most competitive cities. However, without details on the nature of infrastructure, or on the steps taken to ensure that it is sustainable, this Option cannot be appraised with any certainty against the other topic areas. The Option is partly aimed at improving development related transport (by providing the appropriate infrastructure) therefore positive effects on transport provision could be expected.
183	Promote non-car modes of travel	↗	↗	↗	↔	↔	↗	↔	↗	↗	↗	↗	↗	↗	This Option should bring about positive effects on the uptake of walking, cycling and public transport across the city helping contribute to reducing transport related Greenhouse gas emissions (GHG). Ensuring access for any commercial vehicles may help contribute to identified economic issues including ensuring the continued vitality and viability of the City Centre. Ensuring there are non-car options for everyone using the development should help improve access, in particular for those with limited mobility, the disabled and the elderly. This Option should help reduce car dependency and increase the attractiveness of the City for greater cycling and walking. A reduction in traffic impacts, such as noise and emissions, may also contribute to ensuring that new developments do not adversely impact local biodiversity. This Option is likely to have positive benefits across the whole City.
184	Appropriate infrastructure	↗	?	↗	↔	↔	↗	?	?	↗	↗	↗	↗	↗	This Option should help reduce car dependency and help facilitate greater uptake in terms of walking, cycling and the use of public transport; thus helping address a number of key transport topic issues and contribute to mitigating the impacts of climate change. The extent to which this Option brings about modal shift in all areas of Cambridge is likely to be positive.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
185	Low emission vehicle infrastructure	↗	↔	↗	↔	↔	↗	↔	?	↗	?	?	?	?	The inclusion of low emission vehicle infrastructure has the potential to bring about significant GHG reduction benefits. Furthermore, it should help change the way people think about personal car usage and indirectly help increase the use of more sustainable transport modes. Electric car infrastructure should encourage greater uptake and help reduce local air pollution.
186	Maintain the current level of provision (of car parking)	↗	?	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	The maintenance of the current levels of parking provision should have a positive effect on addressing transport topic issues by encouraging sustainable transport, with associated climate mitigation and health and well being gains. It does not account for local circumstances, but should encourage low carbon technologies, such as public transport; and walking and cycling across all areas. Option 187 will retain some standards from the previous policy (2006 Local Plan), allowing for new standards to be developed by stakeholders and communities. Option 188 raises the prospect of even greater stakeholder and community influence leading to completely new standards. The effect of these policies cannot be fully appraised as they are yet to be determined by the council in consultation with stakeholders which could result in greater or lesser amounts of parking, leading to uncertain effects at the local scale and cumulatively across the city.
187	New residential parking standards	?	?	↗	↔	↔	?	↔	?	?	?	?	?	?	
188	Completely new standards for all development	?	?	↗	↔	↔	?	↔	?	?	?	?	?	?	
189	Car free development	↗	?	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	The Car Free Development Option (189) is likely to have positive effects on health, wellbeing and greater use of sustainable transport modes, through the encouragement of walking, cycling and public transportation in all areas. This Option would support climate change mitigation efforts. Option 190 is likely to lead to similar, but more diluted effects. In order to address Cambridge's need to encourage use of more sustainable transport modes a standalone Option on car free developments would likely deliver the best performance in terms of identified sustainability issues.
190	Incorporate car free development into existing policy	↗	?	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
191	Location, design and quality	↗	↔	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	Cambridge benefits from high levels of cycling helping reduce traffic congestion and reduce GHG emissions. Ensuring the provision of high quality, well designed and suitably placed cycle parking will help maintain and contribute to increasing this modal share. This Option should have a significant positive effect on health and well being issues and may lead to reductions in the use of private cars and transport emissions. However, additional gains could be achieved if this Option was worded such that that cycle parking is 'more' convenient than car parking (not 'as least as') helping ensure it is the first choice for travel. Any effects are likely to be felt citywide.
192	Update the cycle parking standards in the 2006 Local Plan	↗	↔	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	By enabling stakeholder involvement in the process of developing new cycle parking standards in the city, and by taking guidance from best practice elsewhere, this Option is likely to help ensure growth in cycling in the city, with associated benefits across all of the city areas. The extent to which this Option is likely to deliver positive outcomes will be determined by the input of the stakeholders, the cases considered, and the feasibility of any suggested changes.
193	Development only where the impact on the network is able to be mitigated against (Minimising the transport impact of development)	?	?	?	↔	↔	?	↔	?	?	?	?	?	?	Option 193, which allows development only where traffic impact is mitigated against or managed, could help contribute to increasing the modal share of cycling, walking and public transport. However, as it is recognised by the Option, any development is likely to place some additional pressure on the transport network.
194	Modal split targets for new development	↗	?	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	Option 194 which would set modal split targets would likely result in a shift towards more sustainable travel behaviour across the city, bringing benefits in terms of health, well being, and emission reductions.

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
195	Do not set a city wide modal split target for new Development	?	?	?	↔	↔	?	↔	?	?	?	?	?	?	Option 195 which proposes a negotiated target on a case by case basis is more difficult to assess, as the potential cumulative effect of case-by-case allocations could result in an overall increase in car journeys compared to Option 194 but would provide much greater flexibility to address particular site specific limitations.
196	Travel Plans (Travel Plans for all sites)	↗	?	↗	↔	↔	↗	↔	?	?	?	?	?	?	Setting an appropriate threshold for requiring travel plans across the city is likely to result in a positive effect on the use of more sustainable transport modes, with consequential benefits on health and well being, reduced transport pressures and GHG emissions.
197	Travel Plans (Travel Plan only where officers feel it is appropriate)	↗	?	↗	↔	↔	↗	↔	?	↗	↗	↗	↗	↗	Option 197, to continue the current requirement only where felt appropriate/stipulated would be likely to have a similar effect to Option 196. However, there is some uncertainty over the effectiveness of this Option across different areas of the City due to anticipated localised variation in requirements. Nonetheless the overall effect of this Option is likely to be positive.
198	Cambridge Airport – Aviation development	↗	?	↔	↔	↔	↔	↔	↗	?	?	?	?	?	This Option should help mitigate any adverse impacts of development on the health and well being of Cambridge residents compared to no Option being proposed. This Option is also likely to help minimise impacts on the local natural environment and biodiversity. It is possible that restricting the growth of the airport could affect the ability for Cambridge to capitalise on its position as one of the UK's most competitive cities but this is not clear. Conversely, by protecting amenity and the wider City environment this Option should help minimise any potential impacts on Cambridge as an attractive place to live work, visit and spend leisure time. As such, the economic effect remains uncertain.
199	Telecommunications policy – criteria	↗	?	?	↔	↔	?	↗	↔	↗	↗	↗	↗	↗	Criteria based quality standards for the siting, design, appearance, and impact mitigation of

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
	based														telecommunication developments may result in mitigating concerns regarding visual, health and landscape impact concerns. The proposed criteria should also help address issues relating to the quality of the built environment, open spaces and conservation areas across the City.
200	Mullard Radio Astronomy Observatory, Lord's Bridge – Consultation Areas	?	?	?	?	?	?	?	?	?	?	?	?	?	Without details of the location or nature of proposed development it is not possible to effectively appraise this Option. However, it is unlikely that this option would have any significant impact on the sustainability issues. The only possible impact could potentially be against the economy sustainability theme, in particular the issue relating to Cambridge's position as a competitive city. This is because it might be necessary to have mitigation measures associated with certain types of industrial processes or telecoms systems, or in extreme cases prevent development from being permitted, where they could affect the operation of the Observatory. However, this impact is unlikely given that the Observatory is outside the City boundary.
201	Provision of infrastructure and services	↗	↗	?	↗	↗	?	↗	↗	↗	↗	↗	↗	↗	This Option is likely to contribute to positive effects across multiple sustainability topics and thematic areas. Health, leisure and community facilities can contribute to wellbeing. Improvements to water, and flood protection infrastructure can also bring benefits. Green infrastructure and open spaces provision could enhance biodiversity. Furthermore this Option should help maintain cultural facilities and improve the quality of the open and built environment citywide. The sustainability benefits of this Option on the transport and renewable energy sustainability topics will depend on the nature of the infrastructure and services provided and therefore it is difficult to appraise them with any certainty at this stage.
<p>Summary:</p> <p>In all, the options relating to 'promoting and delivering sustainable transport and infrastructure' are likely to contribute positively to the identified sustainability issues. These Options are likely to be capable of meeting the future transport and infrastructure needs and ambitions of Cambridge, whilst ensuring the protection and enhancement of the City's character. Some Options lack enough detail to be appraised with any certainty; other Options which rely on stakeholder input in order to develop the Option are also difficult to appraise due to</p>															

Option Number	Option title	Communities	Economy	Transport	Water	Flood risk / CC adaptation	CC mitigation and RE	Land/townscape/ heritage	Biodiversity	City Centre	North Cambridge	South Cambridge	East Cambridge	West Cambridge	Appraisal Discussion
															<p>an unknown outcome.</p> <p>Developers' contributions that support the provision of new infrastructure are likely to contribute to positive benefits across multiple themes, including climate mitigation and efforts to improve cycling and public transport infrastructure, along with travel plan requirements, should facilitate a greater shift towards use of more sustainable modes of transport. However, it is not entirely clear whether such measures will be sufficient to address the already 'seriously constrained' transport network in consideration of the significant planned growth and whether Options to increase the modal share of sustainable transport will increase.</p>

6.3 Plan appraisal against each Sustainability Topic

Communities and Well Being

6.3.1 The 'Communities and Well Being' sustainability topic focuses on the need to address identified issues relating to deprivation, health and equality through the provision of appropriate social infrastructure and housing and employment opportunities for all residents, with a focus on particular geographical areas of concern.

6.3.2 The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 4 Spatial Strategic Options
- Chapter 5 Opportunity Areas
- Chapter 7 Delivering High Quality Places
- Chapter 9 Delivering High Quality Housing
- Chapter 11 Creating Successful Communities

6.3.3 The appraisal of the Plan Options has identified that on the whole the plan will contribute positively to addressing many identified key sustainability issues. The 'Promoting Successful Communities' and 'Opportunity Areas' Options perform particularly well. These Options should have significant positive effects on improving the general health and well being of Cambridge residents through improved public realm and support for enhanced provision of open space across the City. Specific promotion of community facilities and cultural activities will also help meet the variety of needs of Cambridge's diverse population. In combination (with what?) with the 'Spatial Strategy' Options it is less clear how the plan will perform against this sustainability topic. Whereas the 'Spatial Strategy' Options perform well independently against the 'Communities and Well Being' topic with increasing delivery of homes and employment, a growing number of residents would likely lead to increasing pressure on available open space provision and could impact on local amenity. However, lower levels of housing and employment would likely fail to address the significant issues relating to housing provision and anticipated future population growth and the need for job creation. Rigorous enforcement of the 'Delivering High Quality Places' Options would contribute to mitigate any significant adverse effects.

Economy

6.3.4 The economy sustainability topic focuses on building on Cambridge's position as one of the UK's most competitive Cities by supporting the growth of small and growing high tech businesses and research sectors; encouraging the sustainable growth of tourism; and capitalising on the value of language schools to the local economy.

6.3.5 The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 10 Building a Strong and Competitive Economy
- Chapter 12 Sustainable Transport and Infrastructure

- 6.3.6 The Options relating to Building a Strong and Competitive Economy present a balanced approach to managing economic growth while also recognising the pressures this could have on Cambridge's transport infrastructure and housing market. While some of the alternative Options were identified to result in negative effects on this topic, at least one of the alternative options tended to perform positively. Furthermore, the Sustainable Transport and Infrastructure Options also perform reasonably well against the economic sustainability issues providing confidence that Cambridge has the potential for strong economic growth without significant adverse impacts on local transport infrastructure and environmental quality.
- 6.3.7 The Spatial Strategy's Options perform increasingly well against the sustainability topic with increasing delivery of housing provision and job creation. Adverse effects were identified where it was anticipated that the growth options were unlikely to address the critical shortage of housing provision or employment to meet the anticipated growing population.

Transport

The transport sustainability topic focuses on building on the existing high modal share of cycling and walking in the city and encouraging longer journeys by bike. It also seeks to address issues relating to the use of the private car by discouraging private car use at new developments and improved access to frequent public transport.

The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 5 Opportunity Areas
- Chapter 12 Sustainable Transport and Infrastructure

- 6.3.8 Cambridge benefits from a strong foundation of cycling and walking in the City but has relatively limited public transport capacity extending to commuter settlements resulting in the majority of journeys into Cambridge for work being made by car. The Sustainable Transport and Infrastructure Options present a broad framework to address these identified transport sustainability issues.
- 6.3.9 While on the whole the Options should help address identified sustainability issues, the proposed level of growth and cumulative impacts are uncertain. The Options relating to the higher levels of housing and employment provision are very likely to result in increased pressure on existing transport infrastructure which would be exacerbated where development is located within easy access to the main road network including the M11 and A14. Developments within easy access of the main road network will likely result in significant effects on congestion and air quality in and near to the City. Furthermore the appraisal of the broad locations identified either a likely negative effect on the Transport sustainability topic; or that the implementation of that Option was uncertain. The extent to which the plan will address key sustainability issues relating to transport will be overwhelmingly dependent on delivery of accessible and frequent public transport provision and safe and secure cycle infrastructure. Also through securing improvements to the highways network through developer contributions. Measures to reduce private car ownership at new developments should be stringently enforced.

Water

- 6.3.10 The assessment framework for the water sustainability topic identified three key issues: the need for high standards in water efficiency for new development such that it would place no additional pressure on water scarcity; the need for improved water quality for Cambridge's water courses; and the recognition for potentially new sewerage infrastructure. The Options presented should help address all these issues.
- 6.3.11 The key Issues and Options that relate to this sustainability topic are:
- Chapter 2 Vision
 - Chapter 6 Sustainable Development, Climate Change, Water and Flooding
- 6.3.12 The extent to which the Vision fully addresses water scarcity in the region is unclear, particularly given the anticipated significant growth in housing and employment provision. Furthermore, the extent to which the Option recognises the threat posed by climate change and the need to both mitigate and adapt to its effects could also be more clearly stated. However, specific Options on sustainable construction standards, water efficiency targets, and water body quality within the Sustainable Development, Climate Change, Water and Flooding Chapter are likely to provide significant positive effects on addressing some identified water sustainability issues. These Options address the notable policy absences in the Local Plan (2006) relating to water efficiency in new buildings and taking into consideration the impacts of climate change.

Flood Risk and Climate Change Adaptation

- 6.3.13 Key sustainability issues identified regarding Flood risk and Climate Change Adaptation include the need take into consideration the environmental and societal cost of flooding; the value that natural defences provide and the need for sustainable drainage systems, and the need to ensure new and existing communities have the ability to adapt to a changing climate.
- 6.3.14 The key Issues and Options that relate to this sustainability topic are:
- Chapter 2 Vision
 - Chapter 4 Strategic Spatial Options
 - Chapter 6 Sustainable Development, Climate Change, Water and Flooding
 - Chapter 7 Delivering High Quality Places
 - Chapter 9 Delivering High Quality Housing
- 6.3.15 The Sustainable Development, Climate Change, Water and Flooding Options are likely to deliver significant positive effects in addressing the identified flood risk and climate change adaptation issues. The effect of only a couple of Options was uncertain on the sustainability topics.

6.3.16 The Strategic Priority in Chapter 6 had an aim for sustainable communities that are capable of adapting to the impacts of climate change sets a strong overarching requirement that should help guide future development and place making. The Option to develop a comprehensive sustainable development policy detailing key requirements for consideration of climate change adaptation should help reinforce this. However, specific reference to flood risk could strengthen this policy helping recognise the existing and future risk of flooding anticipated as a result of more frequent and intense rainfall events. The Strategic Surface Water Management Plan (SWMP) put Cambridge⁺⁺⁺ in the top 2% of settlements at risk of surface water flooding in England. On balance the Delivering High Quality Places Options should contribute positively to addressing Flood Risk and Climate Change Adaptation issues.

6.3.17 The cumulative impact of significant development on the city's waste water infrastructure is uncertain at best and potentially could result in significant negative environmental effects. The Broad Locations Options generally perform poorly against this sustainability topic and although efforts to mitigate any adverse impacts (including the Option to Develop a comprehensive integrated water management policy in the Sustainable Development Chapter) would be developed at the project level, the demand for housing and employment will place additional pressure for increasingly high density developments reducing opportunities for appropriate scale mitigation.

Climate Change Mitigation and Renewable Energy

This sustainability topic focuses primarily on reducing Green House Gas (GHG) emissions relating to transport and new developments, including low carbon design, the need for high standards of energy efficiency and deployment of renewable energy technologies.

6.3.18 The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 6 Sustainable Development, Climate Change, Water and Flooding
- Chapter 7 Delivering High Quality Places
- Chapter 12 Sustainable Transport and Infrastructure

6.3.19 The Sustainable Development, Climate Change, Water and Flooding Chapter provides a suite of Options relating to improving energy efficiency and mechanisms to meet carbon reduction commitments and is likely to result in significant positive effects for this sustainability topic. This approach is further strengthened by Options presented in the Delivering High Quality Places Chapter; in particular its Option for a criteria based policy for the design of new buildings.

6.3.20 The Sustainable Transport and Infrastructure Options provide a strong framework to encourage greater use of public transport and the provision of safe and convenient means for cycling and walking. In particular, specific Options on promoting non-car travel modes, low emission infrastructure and car free developments should help this. Ultimately, given the scale of new development in Cambridge, these Options will need to be closely adhered to. It is likely that only with the highest standards of energy efficiency, discouraging personal car use and facilitating the easy use of sustainable transport modes will the sustainability issues identified be addressed.

Landscape, Townscape and Cultural Heritage

⁺⁺⁺ Source: Environment Agency's National Receptor Database

6.3.21 This topic focuses on maintaining the character and identity of Cambridge in relation to its built environment and how the City integrates within the wider landscape. Key identified sustainability issues relate to protecting and enhancing the City's historic environment through appropriate design and promoting the distinctiveness of the City's different areas.

The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 4 Strategic Spatial Options
- Chapter 7 Delivering High Quality Places
- Chapter 8 Protecting and Enhancing the Historic and Natural Environment
- Chapter 11 Creating Successful Communities

6.3.22 Aspects of this sustainability topic are addressed by a variety of Options spread across several chapters. On balance it is likely that the Options presented will help ensure the protection and enhancement of the historic environment. Criteria based Options in the Delivering High Quality Places and Protecting and Enhancing the Historic and Natural Environment Chapters provide a strong framework to address any significant concerns within the City Centre and surrounding built up areas. The Creating Successful Communities Options should have significant positive effects on protecting and improving open space provision in the City; however open space will face competing pressure depending on the amount of new development.

6.3.23 The extent to which the Options will safeguard the 'setting' of Cambridge is less clear. Different housing and employment growth figures will result in more or less dense (including physically higher) development and consequential effects on the wider townscape. While there needs to be a balance between the value of Cambridge's visual amenity and its contribution to making Cambridge an attractive place to live work and visit, there is an identified pressure for development. While development will alter Cambridge's landscape character this may not necessarily be negative or result in a loss of distinctiveness for which the City is known - in fact developments could be required to have their own 'distinctiveness' appropriate to the local context. However, the extent to which other protectionist Options would mitigate any significant negative effects is still unclear and would depend on the quality of individual developments.

Biodiversity and Green Infrastructure

6.3.24 This topic recognises the value of biodiversity and green infrastructure including its contribution to the health and well being of Cambridge's residents and its role in helping the City mitigate and adapt to climate change. Key identified sustainability issues include the need to build on existing good conservation management of green infrastructure and improve connectivity and reduce its further fragmentation. Issues relating to employing green infrastructure to help adapt to the threats posed by climate change and improved water quality are also identified.

The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 4 Spatial Strategic Options

- Chapter 8 Protecting and Enhancing the Historic and Natural Environment

6.3.25

The Vision Option provides a strong endorsement of the value of biodiversity and green infrastructure and the value it provides to Cambridge. Its focus on encouraging urban greening and expanding the City's green spaces and tree cover to protect and enhance biodiversity and help cool the City, directly reflects identified key sustainability issues. The Protecting and Enhancing the Historic and Natural Environment Chapter then sets out a number of specific Options that also directly address identified key issues helping reinforce and set the framework to ensure development are unlikely to have any significant effects on this sustainability topic. However, competing pressures for land in order that Cambridge can adapt and grow may lead to potential conflict between Options, in particular, the spatial strategy Options. While it is likely that sites will be protected at the local level the protection and enhancement of biodiversity and green infrastructure may not be realised at the strategic level. There is also an option (Option 22) on Green Infrastructure in Chapter 4. Although there is an Option for support for Strategic Biodiversity Enhancement Proposals in the Plan, this approach clearly states that its implementation would not necessarily help with the implementation of projects. Hence, there still remains a significant degree of uncertainty as to whether City scale improvements to connectivity and reduced fragmentation would be successfully implemented.

City Centre

The key sustainability issues for this functional area are to ensure Cambridge is a safe and welcoming environment to live, work and visit; that it capitalises on the opportunities from growing business sectors; and ensures opportunities to reduce energy demand through renewable and low carbon technologies.

The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 4 Strategic Spatial Options
- Chapter 5 Opportunity Areas
- Chapter 6 Sustainable Development, Climate Change, Water and Flooding
- Chapter 7 Delivering High Quality Places
- Chapter 8 Protecting and Enhancing the Historic and Natural Environment
- Chapter 9 Delivering High Quality Housing
- Chapter 10 Building a Strong and Competitive Economy
- Chapter 11 Creating Successful Communities
- Chapter 12 Sustainable Transport and Infrastructure

- 6.3.26 The Plan options recognises the wide range of uses the City Centre provides, including shopping, leisure, entertainment, museums, University faculty buildings and Colleges, offices, housing and as the main transport hub. And that the key challenge will be to cope with increasing population and the demand from businesses to locate there while not adversely affecting the environment that makes the City Centre so attractive. To address the numerous competing issues the Plan Options present a good mix of both pro-growth and protectionist approaches in order to facilitate development while maintaining the qualities for which Cambridge is famous. The Strategic Priority for the City Centre Option alludes to addressing this balancing act but a lack of detail means it cannot be effectively appraised. Although it is noted that further evidence on the capacity of the City Centre is going to be produced by the City Council to feed into the development of any policy in the Local Plan. Also other Options do provide the indication that the Plan is likely to lead to positive effects for the City Centre as a whole. In particular, Options on protecting facilities that serve a local need, open space, the support for new office space and hotel provision should help ensure the City maintains its environmental amenity and facilitate economic growth in target business sectors.
- 6.3.27 The extent to which the Sustainable Transport Options would mitigate increased pressure on the transport network from additional development is uncertain; however the Opportunity area Options should certainly result in significant positive effects in mitigating these concerns around the railway station and along routes to the centre.
- 6.3.28 In terms of reducing energy demand through low carbon and renewable energy technologies the Option on Renewable and Low Carbon Energy Generation goes some way to addressing the opportunity for the development of strategic district heating network in the City Centre. Other Options including the Establishment of a Community Energy Fund to help meet zero carbon policy and the Option for Consequential Improvements to address the energy efficiency of homes and non-residential buildings where Part L requirements wouldn't currently apply, should also help provide a strong framework to address this sustainability issue.

North Cambridge

- 6.3.29 The key sustainability issues for this functional area are to encourage high quality design and improve the quality of the public realm; increase access to high quality open space and address deprivation across several areas to the north and north-east of the area. Furthermore there is a need to address flood risk and encourage use of public transport and walking/cycling.
- 6.3.30 The key Issues and Options that relate to this sustainability topic are:
- Chapter 2 Vision
 - Chapter 3 Spatial Strategy
 - Chapter 4 Strategic Spatial Options
 - Chapter 6 Sustainable Development, Climate Change, Water and Flooding
 - Chapter 7 Delivering High Quality Places
 - Chapter 8 Protecting and Enhancing the Historic and Natural Environment
 - Chapter 9 Delivering High Quality Housing
 - Chapter 10 Building a Strong and Competitive Economy
 - Chapter 11 Creating Successful Communities
 - Chapter 12 Sustainable Transport and Infrastructure

- 6.3.31 Some areas in north and north-east Cambridge experience significant deprivation with several areas within the 20% most deprived in England. North Cambridge has four of the six most deprived areas in the City and this is undoubtedly the key issue facing this functional area, particularly considering the trend towards increasing deprivation in the City. Measures to address this will be largely dependent on proposed development and regeneration in this area including development at North West Cambridge – Land between Huntingdon Road and Histon Road (NIAB1) and Northern Fringe East. The planning application for NIAB1 includes around 1,500 new homes of which 40% will be affordable. The Option on Northern Fringe East proposes transport led regeneration and specific reference to the regeneration of the wider area in a coherent and comprehensive manner. The Northern Fringe East Option should be a catalyst for major regeneration of this area and is likely to result in significant positive effects on addressing deprivation and delivering sustainable transport options, in particular through the specific reference to the transport interchange including the Guided Bus.
- 6.3.32 The Cambridgeshire Strategic Surface Water Management Plan (2011) identified the King’s Hedges / Arbury area, North Chesterton and South Chesterton within the top five ‘wetspots’ within Cambridge and these areas needed increased maintenance of water courses and surface water drains as well as attenuation features, such as swales, basins and wetlands.
- 6.3.33 The Options relating to Flooding (including the development of a comprehensive integrated water management policy and flood risk reduction policy) should help better understand and address water management issues for all development proposals; however, given the existing flood risk and future increased risk due to climate change a more integrated approach (between nearby developments) is likely to be required. Furthermore, assessment of the potential for off-site flood risk as a result of development should also be undertaken to mitigate any significant impacts on the nearby conservation areas of Chesterton / Ferry Lane and De Freville.

South Cambridge

The key sustainability issues for this functional area are to facilitate the achievement of successful new communities within urban extensions and to address deprivation issues in areas to the east. The issues identified also include the need to maintain and enhance open space and green space, support identified priorities with conservation areas, encourage greater use of public transport and walking/cycling and address flood risk.

- 6.3.34 The key Issues and Options that relate to this sustainability topic are:
- Chapter 2 Vision
 - Chapter 3 Spatial Strategy
 - Chapter 4 Strategic Spatial Options
 - Chapter 6 Sustainable Development, Climate Change, Water and Flooding
 - Chapter 7 Delivering High Quality Places
 - Chapter 8 Protecting and Enhancing the Historic and Natural Environment
 - Chapter 9 Delivering High Quality Housing
 - Chapter 10 Building a Strong and Competitive Economy
 - Chapter 11 Creating Successful Communities
 - Chapter 12 Sustainable Transport and Infrastructure

6.3.35 Permission has been granted for a number of significant developments in the Southern Fringe including at Trumpington Meadows, Glebe Farm and Clay Farm. All proposals include the provision of 40% affordable housing. The Option Southern Fringe is expected to be broadly consistent with Policy 9/5 in the Local Plan 2006. This policy is likely to perform positively in addressing levels of deprivation and mitigating flood risk through improved drainage. However, the proposed Broad Location Options were assessed as likely to result in adverse effects. These are predominantly as a result of their potential impact on the loss of farmland and open space provision and the impact on biodiversity, cultural heritage and the landscape character and setting of Cambridge.

6.3.36 It is unclear the extent to the cumulative impact of existing planned development and potential new development at the Broad Locations in the south and their effect on Cambridge's transport network. While the appraisal of the Broad Location Options on the Transport sustainability issues was uncertain and further transport modelling is required it is not entirely clear whether the Sustainable Transport and Infrastructure Options provide a strong enough framework to mitigate any adverse effects. Understandably, depending on level of housing and employment development there should be sufficient critical mass to implement sustainable transport modes, without which the adverse effects of the Plan on the sustainability issues are likely to be compounded.

East Cambridge

6.3.37 The key sustainability issues for this functional area are to maintain and enhance open and green space within the urban area, maintain the character particular neighbourhoods, encourage greater use of public transport and walking/cycling and address local deprivation.

6.3.38 The key Issues and Options that relate to this sustainability topic are:

- Chapter 2 Vision
- Chapter 3 Spatial Strategy
- Chapter 4 Strategic Spatial Options
- Chapter 5 Opportunity Areas
- Chapter 6 Sustainable Development, Climate Change, Water and Flooding
- Chapter 7 Delivering High Quality Places
- Chapter 8 Protecting and Enhancing the Historic and Natural Environment
- Chapter 9 Delivering High Quality Housing
- Chapter 10 Building a Strong and Competitive Economy
- Chapter 11 Creating Successful Communities
- Chapter 12 Sustainable Transport and Infrastructure

6.3.39 The Cambridge East site is now unlikely to come forward before 2031. The site was expected to be brought forward in multiple stages and include a new large district centre; and could also have acted as a catalyst for wider regeneration in this area.

- 6.3.40 In the absence of significant development proposals East Cambridge is likely to experience a period of relative stasis with its character reinforced by strong Options on the protection of open space and the protection and enhancement of the historic and natural environment. However the absence of development will also limit financial contributions to implement public transport and cycling/walking infrastructure improvements and reduce the opportunity for development to be used as a catalyst for wider change and help address deprivation in the area. The 3rd, 4th and 10th worst performing “Super Output Areas” in Cambridge, in terms of the overall Index of Multiple Deprivation, are located at the northern extent of Abbey ward.
- 6.3.41 The Plan’s Options for Mill Road and it’s recognition of different types of retail centre and the protection of neighbourhood shops should help reinforce the character of particular neighbourhoods, including the Mill Road West District Centre (and neighbouring Mill Road East District Centre in the City Centre functional area), noted for its independent shops and strong sense of community.
- [West Cambridge](#)
- 6.3.42 The key sustainability issues for this functional area are to maintain and enhance open and green space within the urban area, maintain the character of the built environment and designated Conservation Areas and capitalise on opportunities to encourage sustainable transport.
- 6.3.43 The key Issues and Options that relate to this sustainability topic are:
- Chapter 2 Vision
 - Chapter 3 Spatial Strategy
 - Chapter 4 Strategic Spatial Options
 - Chapter 6 Sustainable Development, Climate Change, Water and Flooding
 - Chapter 7 Delivering High Quality Places
 - Chapter 8 Protecting and Enhancing the Historic and Natural Environment
 - Chapter 9 Delivering High Quality Housing
 - Chapter 10 Building a Strong and Competitive Economy
 - Chapter 11 Creating Successful Communities
 - Chapter 12 Sustainable Transport and Infrastructure
- 6.3.44 There is an identified need for improved provision of convenience shopping in North West Cambridge. The Plan Option ‘New Foodstore in North West Cambridge’ under Building a strong and competitive economy should help address this, and is also likely to reduce the need for local residents to travel by private car to access other foodstores at more distant locations. This could have a positive effect on encouraging sustainable transport, which is identified as a key issue for West Cambridge. This would also have a positive impact for ‘North Cambridge’ as one of the foodstores is proposed at the NIAB site which is in that area.

- 6.3.45 The Plan Options set out several affordable housing options, of which the most ambitious should ensure delivery of affordable housing, especially for University key workers. This is important for North West Cambridge as it is part of the development sites on the fringe of the City being released from the Green Belt under the 2006 Local Plan. Under the proposed options, the outline application for 3,000 homes and 2,000 student units should deliver a mix of types and sizes as the Options seek to specify tenure and housing mix (99-103). As a result of providing increased accommodation for University of Cambridge student and staff through key-worker affordable housing, it will ensure the University is able to retain and attract key staff. This is likely to have a positive economic effect on maintaining Cambridge's position as one of the UK's competitive cities.
- 6.3.46 The options proposed in the Sustainable development, climate change, water and flooding chapter are likely to further contribute to meeting the renewable energy and carbon reduction targets set out in the North West Cambridge AAP. This requires residential development to meet Code for Sustainable Homes Level 4 or higher and for non residential to be in line with BREEAM —excellent standards. If the most stringent or radical options are adopted, such as striving for water neutrality or requiring levels of carbon reduction beyond those required under Part L Building Regulation, and zero carbon homes, positive effects can be expected for West Cambridge.
- 6.3.47 The Plan puts forward several Options that would have a positive effect on the key issue of encouraging sustainable transport in West Cambridge. For example the following options could significantly help address the issue: Incorporating car free development into existing policy; Modal split targets for new developments; the requirement for travel plans; and Promoting non-car modes of travel.

6.4 Summary and recommendations

- 6.4.1 This Sustainability Appraisal of the Issues and Options Report has been undertaken at both the individual Option level and also at a Plan level in terms of its potential cumulative impacts on the identified sustainability topics. While on the whole the Plan performs well the following five overarching issues have emerged which require careful consideration.

Economic development

- 6.4.2 Cambridge is seen as one of the main economic powerhouses in the east of England. Benefitting from what is often referred to as Silicon Fen or the Cambridge Cluster, Cambridge is home to numerous high tech manufacturing and research and development firms. As a consequence Cambridge is experiencing increasing pressure to capitalise on its position and the value these firms contribute to the sub-regional economy. The Cambridge Cluster at 50 Study (2010) identifies, for example, the need to develop a strategy for the central area that moves well beyond anachronistic land use classes and instead recognises and responds to the changing nature of “doing business” in the 21st Century knowledge economy. In particular, the need for the City Centre to provide for all sorts of “melting pots” – between scientific disciplines, between different professions, and at the interface between work and leisure. The extent to which this can be achieved through the options presented in the consultation is difficult to determine. What is clear is that Cambridge will experience continued and significant demand for housing and employment creation; the consequence of which will be increasing pressure for Green Belt release and the urban expansion and intensification of Cambridge. As identified above it is possible that by 2031 the only area not subject to large scale development pressure is likely to be east Cambridge unless land at Cambridge Airport is made available in this Plan period. As a result the potential scale of development is likely to be profound impacts on those underlying intrinsic qualities that make Cambridge such a desirable place to live, work and visit. The extent to which these can be truly mitigated is open to question.

Affordable housing

- 6.4.3 Historic delivery of affordable housing in Cambridge has been below the 40% target set out in the Local Plan (2006).^{§§§§} This arguably reflects the degree of flexibility of the Local Plan (2006):

‘the precise amount of such housing to be provided on each site will be negotiated taking into account the viability of the development, any particular costs associated with the development and whether there are other planning objectives which need to be given priority’

- 6.4.4 There is a significant affordable housing shortage in Cambridge which needs to be addressed as part of this Plan. Cambridge is geographically constrained and this must be recognised in setting targets. Also targets need to be rigidly enforced in order that future delivery objectives are realised. Affordable housing policies can provide some flexibility and reflect the viability of sites but it is not clear that Cambridge has this luxury and, indeed high land values in Cambridge arguably warrant non-negotiable targets for the big sites at least. For example, there should be non-negotiable targets for large developments and higher non-negotiable targets for any Greenfield development. At a minimum the Council could establish a floor of say 35% below which negotiation won’t be permitted. Any approach should not be weakened for any potential joint sites that may come forward with South Cambridgeshire.

^{§§§§} More recent affordable completions were 2006-2007 (18%), 2007-2008 (12%), 2008-2009 (22%), 2009-2010 (38%), 2010-2011 (33%). Source: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/7E41D19D-52D6-4FEA-BE92-D3797F3CE854/0/TableH16GrosshousingAffordablecompletions.pdf>

Transport

- 6.4.5 There needs to be a step change in transport policy. While the Local Plan (2006) recognised that “the current infrastructure has little spare capacity and is seriously strained in many areas” Cambridge still experiences high levels of congestion. The majority of people commuting into Cambridge do so by car. . Proposals to ‘improve performance’ of the A14 are likely to simply result in increased car dependency, congestion and worsening air quality. The cost to the local economy should not be underestimated. The Transport Economic Evidence Study (TEES) study estimates that the cost to Cambridge of congestion, based on the difference between peak and free-flow travel costs will be almost £1bn per annum to the East of England economy and £1.3bn to the national economy by 2021. Congestion leads to a significant loss of economic potential in Cambridge.
- 6.4.6 Cambridge needs significant investment in public transport and cycling/walking infrastructure in order to reduce congestion in the City. Facilitating safe and convenient cycle infrastructure would be a starting point to increase the current low proportion (2%) of trips in Cambridge over one mile made by bicycle. Revisiting the potential to introduce congestion charging should be pursued, or alter terms of demand management. The County Council who are responsible for transport, are in the early phases of developing a transport strategy for Cambridge, which should look at these types of issues.

Arrest the trend in deprivation

- 6.4.7 In recent years there has been an increase in the number of claimants for housing and council tax benefit, median incomes have dropped and the number of super output areas in Cambridge that are within the 40% most deprived in England has increased from 11 to 20. While development proposals may provide a catalyst to address some aspects of deprivation there are likely to be more fundamental issues that need to be recognised and addressed as part of plan making and delivery. There needs to be a recognition and proactive approach to identifying, protecting and enhancing local neighbourhood and community infrastructure, providing the services for which there is an identified need. Opportunity to locate key support services in or near pockets of deprivation, particularly if there is a neighbourhood focus, should be considered with service providers. Support for the new tier of neighbourhood planning to this end should be considered where there is local interest, as should applying flexibility to the allocation of a reasonable allocation of CIL income to specific neighbourhoods. The use of and updating of key information on socio-economic data (e.g. from 2010 census) for super-output areas should be actively used when considering employment proposals so that the local abilities and skills sets are taken into account and more weighting given to the value of particular socio-economic groups seeking semi-skilled and un-skilled employment. Similarly, identifying and addressing any spatial (e.g. location, transport) barriers to local people who may have dropped out of school early and are now seeking to access tertiary education should be considered together with the distribution of family support and nursery provision.

Water scarcity

- 6.4.8 Cambridge, along with the majority of the South East and East of England, is categorised as an area of severe water stress and under a business as usual scenario^{*****} the demand for water is expected to increase by 33% on 2006 levels by 2031. The vision of the Phase 2 Water Cycle Strategy for the major growth areas in and around Cambridge (2011), is for domestic and non-domestic development to have consumption levels of 80 litres per person per day; and water neutrality in existing housing stock. Cambridge has an average per capita water use of 151 litres per day.

***** Source: http://www.cambridgeshirehorizons.co.uk/documents/environment/cambridge_area_wcs_phase2.pdf

- 6.4.9 While there are cost implications to implementing specific water saving measures there needs to be full recognition of the impact that future development could have on provision. Post 2031 water demand is predicted to exceed supply. Early intervention now to reduce water consumption will guard against this and help the City mitigate and begin to adapt to the anticipated future impacts as a result of climate change.

7 NEXT STEPS

- 7.1.1 To enable stakeholders and the wider public to continue to contribute to the emerging Local Plan, a period of consultation will take place in June / July 2012 on the 'Issues and Options' Report. This Interim SA Report will be available for consultation alongside the Issues and Options to facilitate more informed consultation responses.
- 7.1.2 Following the consultation, the consultation responses as well as the findings of this Interim SA will be taken into account by the Council in drawing up the Proposed Submission Version of the Local Plan for consultation. Once this has been prepared it will be subjected to SA, with findings set out within an SA Report. The Proposed Submission Local Plan will then be published for consultation, with the SA Report published alongside.
- 7.1.3 Subsequent to consultation on the Proposed Submission Local Plan and SA Report, the Council will finalise the document for 'Submission' to Government. The SA Report will also be submitted, unless it is the case that significant changes are made to the Planning Strategy prior to Submission, in which case there may be a need to revise the SA Report.

8 HOW CAN WE BEST MONITOR THE PLAN'S IMPACTS?

“a description of the measures envisaged concerning monitoring...” (SEA Directive Annex I(i))

- 8.1.1 The time for finalising monitoring measures is at the time of plan adoption. This is recognised by the SEA Directive, which requires that at adoption a ‘Statement’ is published that sets out (amongst other things) *‘the measures decided concerning monitoring’*.
- 8.1.2 Within the SA Report (to be published alongside the Proposed Submission Plan) the Directive requires that *‘a description of the measures envisaged concerning monitoring’* is presented. This reflects the fact that the draft plan should be near finalised, and so there should be a reasonable understanding of the likely residual sustainability effects.
- 8.1.3 At this current stage, the appraisal has highlighted the potential for some significant negative effects, and also highlighted a number of uncertain effects, that could give rise to the need for monitoring. However, wide ranging recommendations have been made to ensure that negative effects are avoided or mitigated as far as possible (through changes to the plan) and so there is little point considering monitoring at this stage until the draft Local Plan has been produced.