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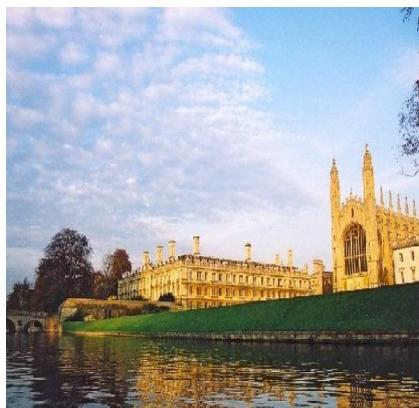
## Cambridge Local Plan Sustainability Appraisal

Scoping Report

June 2012

Prepared for:  
Cambridge City Council

UNITED  
KINGDOM &  
IRELAND



REVISION SCHEDULE					
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## **1 INTRODUCTION**

### **1.1 Background**

1.1.1 URS has been commissioned by Cambridge City Council to undertake the Sustainability Appraisal (SA) of the review of their Local Plan.

1.1.2 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 positive impacts. This SA is a legal requirement, and must follow the process prescribed by the EU Strategic Environmental Assessment Directive.<sup>1</sup>

1.1.3 In order to undertake the appraisal of the Local Plan it is first necessary to establish a methodology or framework for undertaking the appraisal as well as an evidence base to inform the identification and evaluation of impacts. The framework and evidence base are documented in this Scoping Report.

### **1.2 The plan-making context**

1.2.1 The Cambridge Local Plan was adopted in July 2006. It is the main consideration in the determination of planning applications and forms part of the development plan for Cambridge. It sets out a vision, policies and proposals for future development and land use in Cambridge to 2016 and beyond.

1.2.2 Following the introduction of the Local Development Framework system in 2004, both existing Local Plans and those in preparation were given a limited shelf life. It was directed that they would cease to be part of the Development Plan, unless saved by the Secretary of State. On 2nd July 2009, the Secretary of State issued a formal direction saving the majority of policies in the Cambridge Local Plan and these policies remain saved until replaced by new policies in the Local Development Framework.

1.2.3 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.

1.2.4 The current Development Plan for Cambridge comprises:

- The saved policies of the Cambridgeshire and Peterborough Structure Plan 2003 (saved as of May 2008);
- The saved policies of the Cambridge Local Plan 2006 (saved as of July 2009);
- The Cambridge East Area Action Plan 2008;
- The North West Cambridge Area Action Plan 2009;
- The saved Cambridgeshire and Peterborough Waste Local Plan 2003; and
- The saved Cambridgeshire Aggregates (Minerals) Local Plan 1991.

1.2.5 Cambridgeshire County Council's Minerals and Waste Core Strategy and Proposals Map C: Mineral Safeguarding Areas were adopted by Cambridgeshire County Council and Peterborough City Council in July 2011. The Core Strategy has already replaced parts of the Waste Local Plan (2003) and Minerals Local Plan (1991). Once the Site Specific Proposals Plan is adopted these Plans will be completely replaced.

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<sup>1</sup> Directive 2001/42/EC on the assessment of the effects of certain plans and Programmes on the environment (the 'SEA Directive') implemented through The Environmental Assessment of Plans and Programmes Regulations 2004

- 1.2.6 In addition to the above documents, the City Council has adopted the following Supplementary Planning Documents (SPD) that do not form part of the Development Plan but add detail to adopted policies:
- Sustainable Design and Construction SPD (June 2007);
  - Affordable Housing SPD (January 2008);
  - Public Art SPD (January 2010);
  - Old Press / Mill Lane SPD (January 2010); and
  - Planning Obligations Strategy SPD (March 2010).
- 1.2.7 At Committee in March 2011 a new approach and timetable was agreed for the review of the Local Plan. At this meeting it was agreed that the development of the Core Strategy, Development Control Policies Development Plan Document (DPD) and Site Specific Allocations DPD would be combined into one process and one document.
- 1.2.8 For clarification this report will refer to the existing Local Plan as the “Local Plan (2006)” and the revision to the current Local Plan (2006) as the “Plan”.

### 1.3 National Planning Policy Framework

- 1.3.1 In the time between the preparation of the “Scoping Report for Consultation” and this “Final Scoping Report” the National Planning Policy Framework (NPPF) has been published.<sup>2</sup> While this Final Scoping Report makes reference to the Draft National Planning Policy Framework and Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs)<sup>3</sup> the assessment stage of the SA will be undertaken in the context of the published NPPF. In particular, while the published NPPF still retains the *‘presumption in favour of sustainable development’*, sustainable development is now 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. Furthermore the NPPF now contains a provision to recognise the *‘intrinsic character and beauty of the countryside’*, whether designated or otherwise.

### 1.4 Report Structure

- 1.4.1 This report is structured as follows:
- Chapter 2 introduces the SA process
  - Chapters 3 – 15 set out the scope
  - Chapter 16 presents a proposed approach to site appraisal
  - Chapter 17 sets out ‘next steps’

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<sup>2</sup> The National Planning Policy Framework was published on 27 March 2012 [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/nppf>

<sup>3</sup> PPSs and PPGs have been replaced by the NPPF

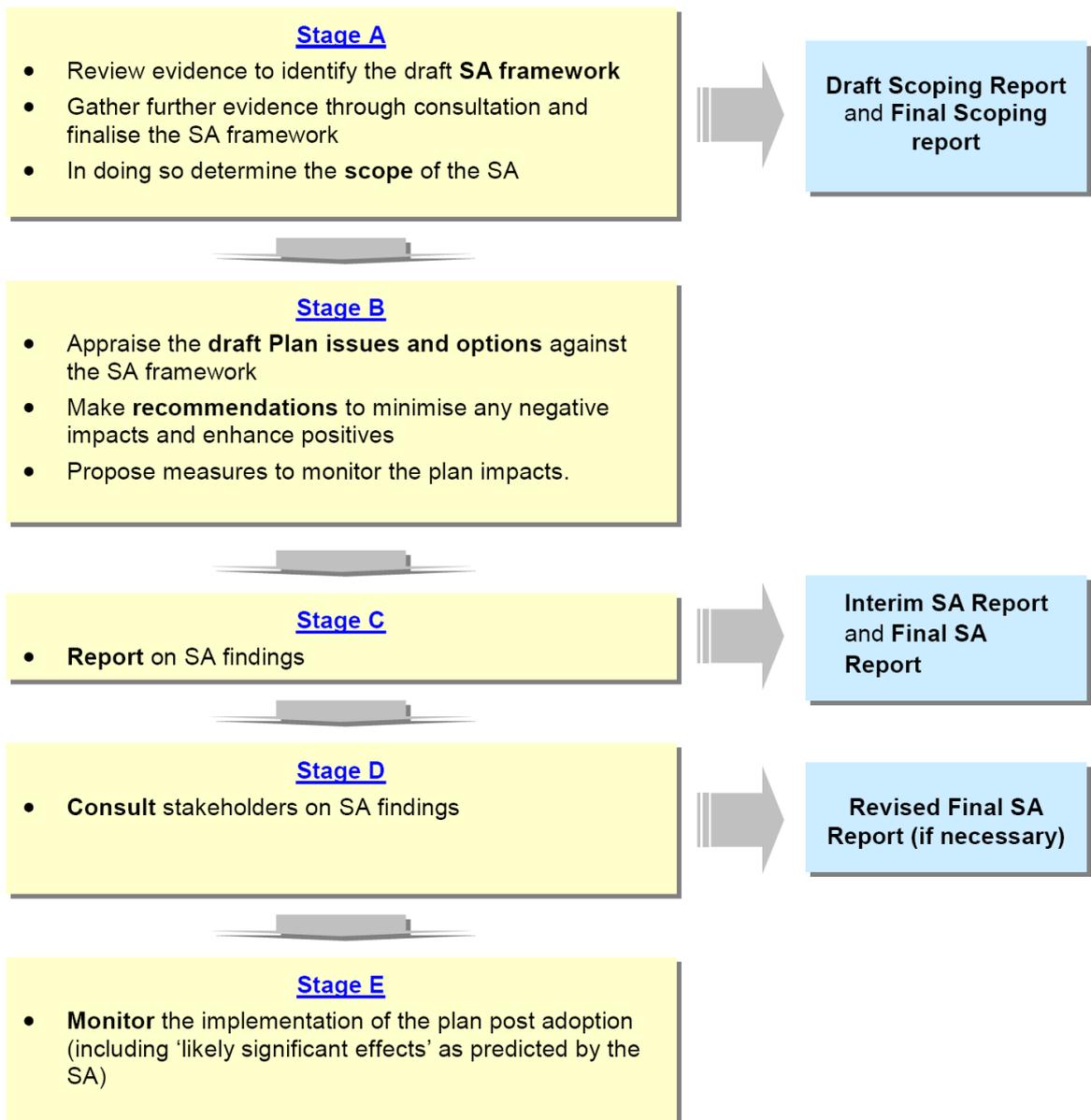
**2 APPROACH TO SA**

**2.1 The SA Process**

2.1.1 This chapter introduces the SA process, and explains how this Scoping Report sits within this process.

2.1.2 SA is based on a five-stage approach – see Figure 2-1.

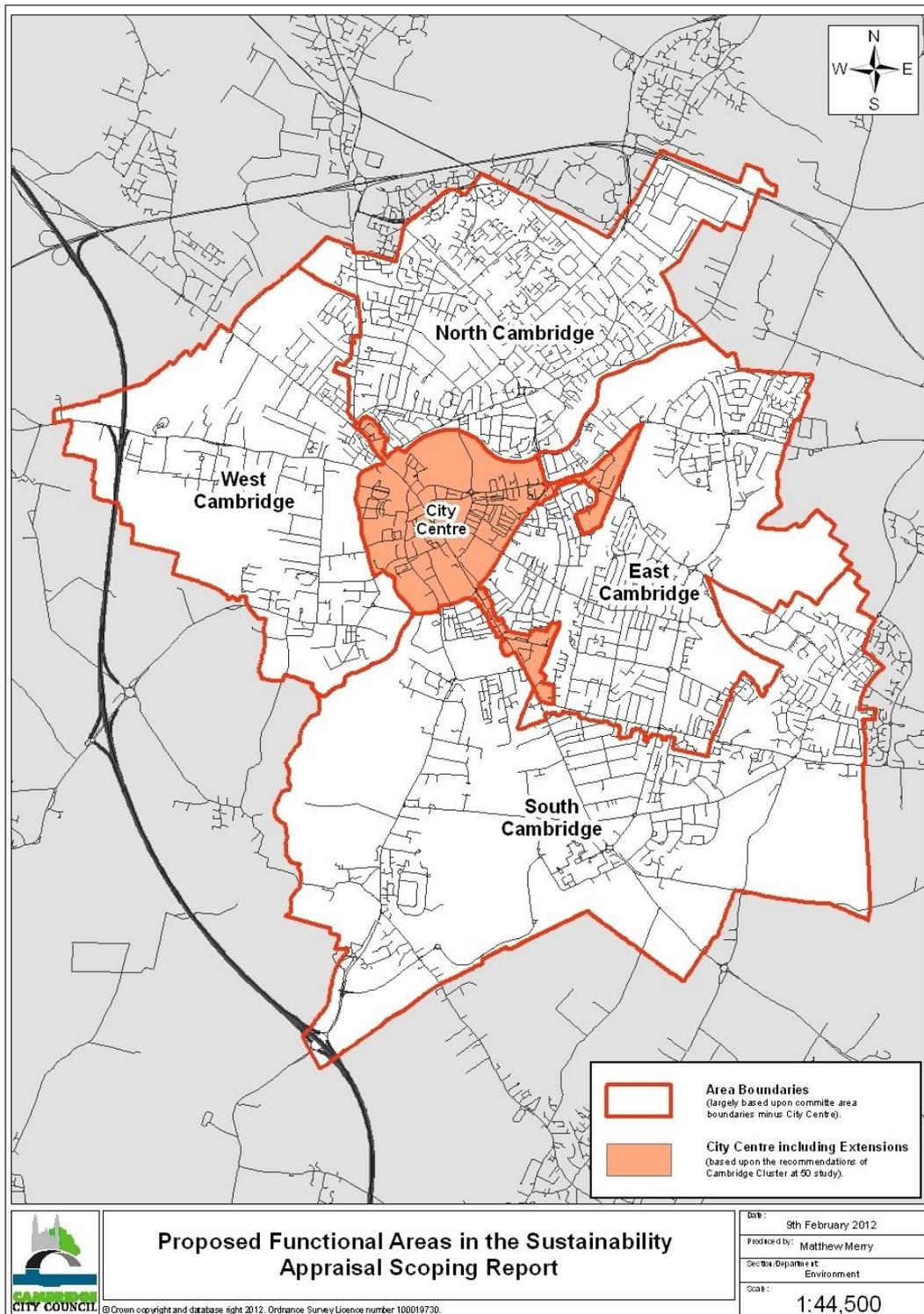
**Figure 2-1: Five stage approach to SA**



**Stage A – Scoping**

- 2.1.3 Stage A in the SA process involves developing the framework for undertaking the appraisal. The framework is essentially a collection of evidence that should be taken into account at Stage B – the assessment stage – thus ensuring a focus on particular issues.
- 2.1.4 Within this Scoping Report, evidence is considered for eight thematic topics and five functional areas (sub-divisions of Cambridge), which taken together should ensure that the full range of sustainability issues is identified.
- 2.1.5 The thematic topics are:
- Communities and Well Being
  - Economy
  - Transport
  - Water
  - Flood risk including climate change adaptation
  - Climate change mitigation and renewable energy
  - Landscape, townscape and cultural heritage
  - Biodiversity and green infrastructure
- 2.1.6 The functional areas have been loosely based on the boundaries covered by the Council's area committees, although the area defined as the city centre has been widened in light of the 'Cluster at 50' Report, produced for the City Council by SQW. It should be noted that in spite of the identification of these functional areas, this will not negate the consideration of the cumulative impact of sustainability issues across the City as a whole.
- 2.1.7 The functional areas are shown in Figure 2-2 and include:
- City Centre
  - North Cambridge
  - South Cambridge
  - East Cambridge
  - West Cambridge
- 2.1.8 The above headings, and the evidence collected and the issues identified under each will provide the framework for the assessment stage.

**Figure 2-2: Map of proposed functional areas within Cambridge**



- 2.1.9 This list of sustainability topics has been defined taking into account:
- An initial understanding of the issues that will need to be addressed as part of the Plan, as identified within the Development Plan and through discussion with the plan-makers;
  - The topics suggested in the SEA Directive;<sup>4</sup> and
  - The need to give full consideration to issues relating to health and equalities, thus negating the need to undertake a separate Health Impact Assessment or Equality Impact Assessment (See Appendix I for further discussion of the way these other assessment processes have been integrated).
- 2.1.10 Within this Scoping Report, under each topic and for each area a number of questions are asked to demonstrate a logical process of evidence consideration and issues identification. The following questions are asked:
- What’s the policy context?
  - What’s the baseline situation?
  - What would the situation be without the Plan?
  - What are the key issues and opportunities?
  - Are there any data gaps?
- 2.1.11 These questions have been selected in order to demonstrate clear compliance with the requirements of the SEA Directive. Set out below is a description of the information contained under each heading.

**What is the policy context?**

- 2.1.12 This section includes a summary of key implications from the Plans, Policies, Strategies and Initiatives (PPSIs) that set the context for considering sustainability issues. This context review meets the requirement of Annex 1(a) of the SEA Directive that the following is reported as part of the SEA:

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

*“the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme” (Annex 1(e))*

**What’s the baseline situation?**

- 2.1.13 This section of the Scoping Report takes a snap-shot of the current sustainability 'baseline' in the city, as well as considering how the baseline has evolved over time and how the local baseline compares to other geographical areas and scales (e.g. the regional or national picture). There is also an emphasis on identifying any variation in the baseline at the sub-authority scale (i.e. areas with particular problems as well as areas of opportunity). This section meets the requirements of Annex 1(b) and 1(c) of the SEA Directive that the following is reported as part of the SEA:

*“the relevant aspects of the current state of the environment...” (Annex 1(b)); and “the environmental characteristics of areas likely to be significantly affected” (Annex 1(c))*

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<sup>4</sup> Annex 1(f) of the Directive states that the Environmental Report must include “the likely significant effects (1) 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” (our emphasis)

**What would the situation be without the Plan?**

- 2.1.14 This section will consider how the baseline might be likely to evolve in the future under a business as usual scenario. Knowledge of the likely future baseline under a business as usual scenario allows effects to be predicted and evaluated with greater accuracy at the assessment stage. This section meets the requirements of Annex 1(b) of the SEA Directive that the following is reported as part of the SEA:

*“... the likely evolution thereof without implementation of the plan or programme” (Annex 1(b))*

**What are the key issues and opportunities?**

- 2.1.15 Following from the review of evidence undertaken under the preceding headings, this section describes those sustainability issues that have been shown to be potentially significant, and so should be a particular focus of the assessment stage. The issues of the SA will define the scope of the appraisal to follow. This section meets the requirement of Annex 1(d) of the SEA Directive that the following is reported as part of the SEA:

*“any existing environmental problems which are relevant to the plan or programme...”*

**2.2 Future stages of the SA**

**Stage B – Appraisal**

- 2.2.1 Stage B in the SA process involves undertaking the appraisal itself, guided by the SA framework. In-line with the SEA Directive, the appraisal must be based around a consideration of options. It is the responsibility of the plan-makers to ensure that a reasonable range of options is considered as part of plan development. This scoping report has been prepared with an initial understanding of the potential scope of options (and hence the issues that are likely to arise).
- 2.2.2 Following the consideration of options, the plan-makers prepare a draft version of the Plan. The draft Plan will be appraised with a focus on making recommendations for improved policy wording so as to mitigate any potential adverse effects and maximise the benefits that may arise as a result of the Plan.

**Stage C – Reporting**

- 2.2.3 Stage C in the SA process involves documenting the findings of Stage B. In order to meet the requirements of the SEA Directive a SA Report will be published for consultation alongside the draft Plan. However, in-line with best practice, an ‘Interim’ SA Report will also be prepared alongside the Issues and Options Report and made available to the public. This will help to ensure that the plan-makers are able to take careful account of SA findings when preparing the draft Plan.

**Stage D – Consultation**

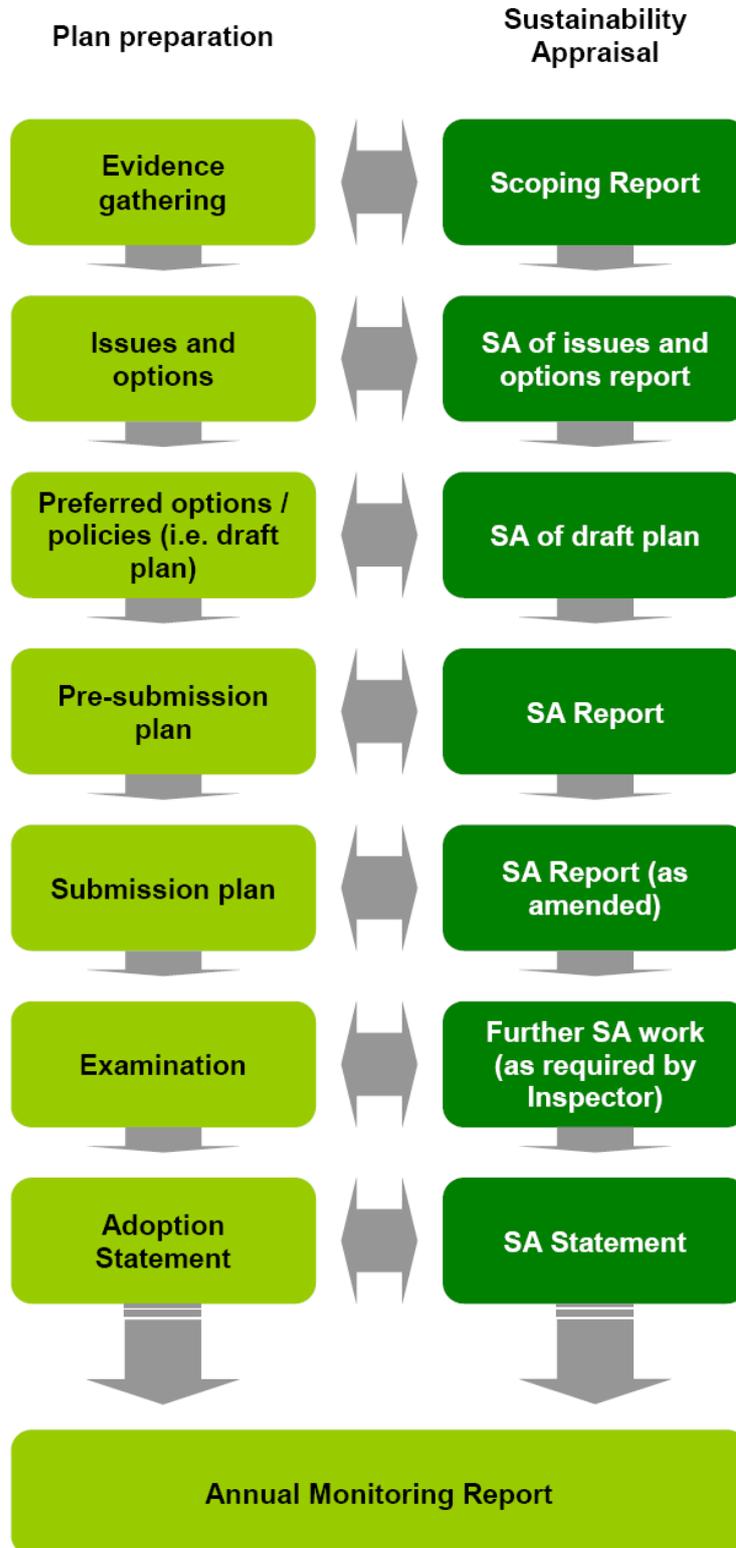
- 2.2.4 The SEA Directive sets out a requirement to consult on findings. Therefore, Stage D of the SA process is a requirement to consult on the Final SA Report alongside the draft Plan. However, there will also be an opportunity to consult (informally) at an earlier stage, on the Interim SA Report.

**Stage E – Monitoring**

- 2.2.5 Stage E in the SA process involves monitoring the adopted Plan including the likely significant sustainability effects, as predicted by the SA. The Final SA Report will recommend monitoring indicators, but responsibility for implementing monitoring lies with the plan-making body, which must set out results in an Annual Report.

2.2.6 The links between the plan-making and SA processes are illustrated in Figure 2-3.

**Figure 2-3: The links between the plan-making and SA processes**



**2.3 Consultation on this Scoping Report**

- 2.3.1 Consultation on the scope of the SA is a statutory requirement and is an essential part of the SA process. Consultation is important because it allows stakeholders to verify that all of the relevant plans, policies and programmes have been reviewed, to check that the most up-to-date baseline information has been included and to ensure the key sustainability issues have been identified.
- 2.3.2 This report was sent to the three Statutory Consultation bodies<sup>5</sup>: Natural England, English Heritage and the Environment Agency, Cambridgeshire County Council, South Cambridgeshire District Council and Cambridge City Ward Councillors. The report was issued for formal consultation for a period of five weeks. This document now incorporates responses to comments received. The comments received and responses to those comments are included in Annex II.

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<sup>5</sup> As required by Regulation 4(1) of the Environmental Assessment of Plans and Programmes Regulations 2004

### 3 COMMUNITIES AND WELL BEING

#### 3.1 Introduction

- 3.1.1 The Department for Communities and Local Government (CLG)<sup>6</sup> has defined sustainable communities as: "...places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all".
- 3.1.2 As such, sustainable communities embody the principles of sustainable development by: "balancing and integrating the social, economic and environmental components of their community, meeting the needs of existing and future generations and respecting the needs of other communities in the wider region or internationally to make their own communities sustainable".
- 3.1.3 Social inclusion is a key aspect of sustainable communities and many interlinked factors are important in ensuring that individuals and areas are able to fully participate in society. Factors such as low income poverty and unemployment can be compounded by poor housing, high crime, discrimination, bad health and family breakdown. A combination of problems can create a vicious cycle and lead to social exclusion. *"Social exclusion can happen as a result of problems that face one person in their life. But it can also start from birth. Being born into poverty or to parents with low skills still has a major influence on future life chances"*.
- 3.1.4 Community wellbeing is therefore influenced by a number of crosscutting factors. This topic focuses on many of these, including community facilities, education, equalities, health, safety, housing and deprivation.

#### 3.2 What's the policy context?

- 3.2.1 Sustainable Communities: **Building for the Future**<sup>7</sup> (the 'Sustainable Communities Plan') was launched in 2003 and sets out a long-term programme of action for delivering sustainable communities in urban and rural areas, including through:
- addressing housing shortages through the provision of housing and affordable housing, as well as through tackling homelessness;
  - ensuring all social housing is brought up to a decent standard by 2010;
  - improving the local environment of all communities (liveability); and
  - protecting the countryside and using land more effectively.
- 3.2.2 **Planning Policy Statement (PPS)**<sup>8</sup>: Delivering Sustainable Development sets out the overarching planning policies on the delivery of sustainable development through the planning system. PPS1 stresses the importance of a strong, stable and productive economy and requires local planning authorities to ensure that the necessary infrastructure is provided to support new and existing development and housing. It also states that accessibility to jobs and services should be addressed as a means of achieving social cohesion and inclusion.

<sup>6</sup> CLG (2003) Sustainable Communities: Building for the Future [online] available at: <http://www.communities.gov.uk/publications/communities/sustainablecommunitiesbuilding> (accessed January 2012)

<sup>7</sup> CLG (2003) Sustainable Communities: Building for the Future [online] available at: <http://www.communities.gov.uk/publications/communities/sustainablecommunitiesbuilding> (accessed January 2012)

<sup>8</sup> ODPM (2005) Planning Policy Statement 1: Delivering Sustainable Development [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/planningpolicystatement1.pdf> (accessed January 2012)

- 3.2.3 The Government's White Paper, **Strong and Prosperous Communities**<sup>9</sup> introduced a new performance framework tailored to local and encourages councils to develop neighbourhood charters setting out local standards and priorities. The White Paper also calls for more accountable and responsive local government, a greater role for community participation in decision-making and an enhanced role for community groups.
- 3.2.4 **PPS3: Housing**<sup>10</sup>, sets out housing policy objectives which provide the context for planning for housing through development plans and planning decisions. The aim is to ensure that everyone has the opportunity of living in a decent home, which they can afford, in a community where they want to live. In particular, the planning system should deliver a "*sufficient quantity of housing taking into account need and demand and seeking to improve choice*". Both PPS3 and PPS1: Sustainable development, highlight the need to provide affordable housing.
- 3.2.5 PPS3 on Housing sets a national target that 60% of new dwellings should be built on previously developed land. It also suggests that the density of new residential dwellings should be at least 30 dwellings per hectare to help ensure efficient use of land. However, this target was subsequently removed because it was thought to contribute to the lack of family sized homes. Currently, Council's are responsible for deciding what density of development is appropriate to their area.
- 3.2.6 PPG2 on Green Belts contains a presumption against any development in the Green Belt that detracts from its purposes which are:
- To check the unrestricted sprawl of large built-up areas;
  - To prevent neighbouring towns from merging into one another;
  - To assist in safeguarding the countryside from encroachment;
  - To preserve the setting and special character of historic towns; and
  - To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 3.2.7 The **Affordable Housing SPD** (2008) outlines Cambridge's objectives to deliver affordable housing that meets housing needs and contributes to the creation and maintenance of sustainable, inclusive and mixed communities. The Planning Obligations Strategy SPD (2010) sets standards for the provision of community infrastructure sought through the Section 106 process.
- 3.2.8 The **Draft National Planning Policy Framework**<sup>11</sup> (2011) is already recognised by the Planning Inspectorate, and should be afforded some weight as a material consideration in the planning process. It provides a framework in which local people and local planning authorities can produce their own distinctive local and neighbourhood plans which reflect the needs and priorities of their communities. It notes the importance of open spaces and requires planning policies to identify specific needs and quantitative or qualitative deficits or surpluses of open space, sports and recreational facilities in the local area. It also states that planning policies should plan positively for the provision and integration of community facilities - which include public houses and other local services - to enhance the sustainability of communities. It also states that '*[e]veryone should have the opportunity to live in high quality, well designed homes, which they can afford, in a community where they want to live*'.

<sup>9</sup> CLG (2006) Strong and Prosperous Communities - The Local Government White Paper [online] available at: <http://www.communities.gov.uk/publications/localgovernment/strongprosperous> (accessed January 2012)

<sup>10</sup> ODPM (2011) Planning Policy Statement 3: Housing [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/pps3housing> (accessed January 2012)

<sup>11</sup> Draft National Planning Policy Framework (2011) [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/draftframework> (accessed January 2012)

- 3.2.9 The **Cambridge Local Plan** (2006) sets out a number of relevant policies focusing on the protection of existing and delivery of new housing, including affordable housing, and community facilities to help meet the varied needs of residents. These needs are defined for health, education and public services, as well as social, cultural and religious activities; the protection of open space and recreation provision recognising its role in promotion of healthy lifestyles; and measures to manage development in terms of pollution and amenity and Air Quality Management Areas. The Cambridge Local Plan (2006) also sets out a range of policies relating to urban design within Cambridge. These policies relate to responding to context, creating successful places, design of new buildings and the design of external spaces. The objective is to create places which provide the setting for everyday life and are accessible, attractive and enjoyable. New buildings should have a positive impact on their setting, be convenient, safe and accessible for all users and visitors, adaptable and constructed in a sustainable manner.
- 3.2.10 The Local Plan (2006) included a spatial strategy for Cambridge which released land from the Green Belt and allocated a number of urban extensions to the City. This was a response to the problems associated with spatial policy in Cambridgeshire at the time, which pushed growth away from Cambridge. The spatial policy was unsustainable because it separated homes from jobs and increased car dependence. The spatial strategy associated with the Local Plan (2006) sought to redress the imbalance between homes and jobs in Cambridge.
- 3.2.11 The spatial strategy allows for:
- a thriving and accessible historic core
  - the development of urban extensions connected to each other and to the city centre by high quality public transport.
  - the regeneration of the station area as a mixed use city district around an enhanced transport interchange.
  - distinctive residential communities which have access to a wide range of local facilities and which provide a high quality living environment
  - the enhancement and improvement of Cambridge's landscape structure and the landscape setting of the city edge.
- 3.2.12 The **Cambridgeshire Vision: County-wide Sustainable Community Strategy 2007-2021** sets out the collective vision and priorities of partner organisations to ensure that public services meet the needs of the people of Cambridgeshire. It states that new development needs *“to provide infrastructure that encourages physical activity such as walking and cycling and environments that support social networks, which have a positive effect on mental and physical health”*.
- 3.2.13 The **Cambridge Sustainable Community Strategy** (2007) aims to enhance the environment and improve the quality of life for people living in, working in and visiting the City. People in the City should live in sustainable communities that are strong, healthy, active, safe and inclusive.
- 3.2.14 This Topic also addresses aspects of community health and equality and key policies that set the context for considering these sustainability issues are included below.

#### **Air Quality and Contaminated Land**

- 3.2.15 At the European level, the Air Quality Framework Directive (96/62/EC)<sup>12</sup> sets a strategic framework for tackling air quality consistently by setting European-wide limit values for twelve air pollutants in a series of daughter directives. The Government's Air Quality Strategy (2000)<sup>13</sup>,

<sup>12</sup> EU (1996) Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996L0062:EN:HTML> (accessed January 2012)

<sup>13</sup> Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland [online] available at: [http://www.official-documents.gov.uk/document/cm71/7169/7169\\_i.asp](http://www.official-documents.gov.uk/document/cm71/7169/7169_i.asp) (accessed January 2012)

required under the Environment Act (1995), sets out plans to improve and protect air quality in the UK.

- 3.2.16 Both air quality and contaminated land are currently covered by detailed national planning guidance in PPS23, which will be withdrawn if the NPPF is implemented. However Legal duties to protect residents from Historic Contaminated land remains under Part IIa of the Environmental Protection Act 1990 and for poor air quality Under the Local Air Quality Management Regulations in the Environment Act 1995.

The NPPF (2012) states that ‘in preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment’, with new and existing developments to be prevented from contributing to soil, air, water or noise pollution. It also highlights the need to ‘prevent unacceptable risks from pollution’ by taking into account the potential effects (including cumulative) of pollution on ‘health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects’, when deciding on the appropriate location for developments.Noise Pollution

- 3.2.17 PPG24 guides authorities on how planning can minimise the adverse impacts of noise. It outlines the considerations to be taken into account in determining planning applications both for noise-sensitive developments and for those activities which generate noise. It provides guidance on levels of noise exposure that are acceptable for different types of buildings and how noise pollution can be mitigated.

**Equalities**

- 3.2.18 Section 149 of the Equality Act 2010 replaces duties under the Race Relations Act, the Disability Discrimination Act 2005 as well as other domestic discrimination legislation. The Act includes a new single public sector equality duty (“the Duty”) which brings together the previous race, disability and gender duties.

**3.3 What’s the baseline situation?**

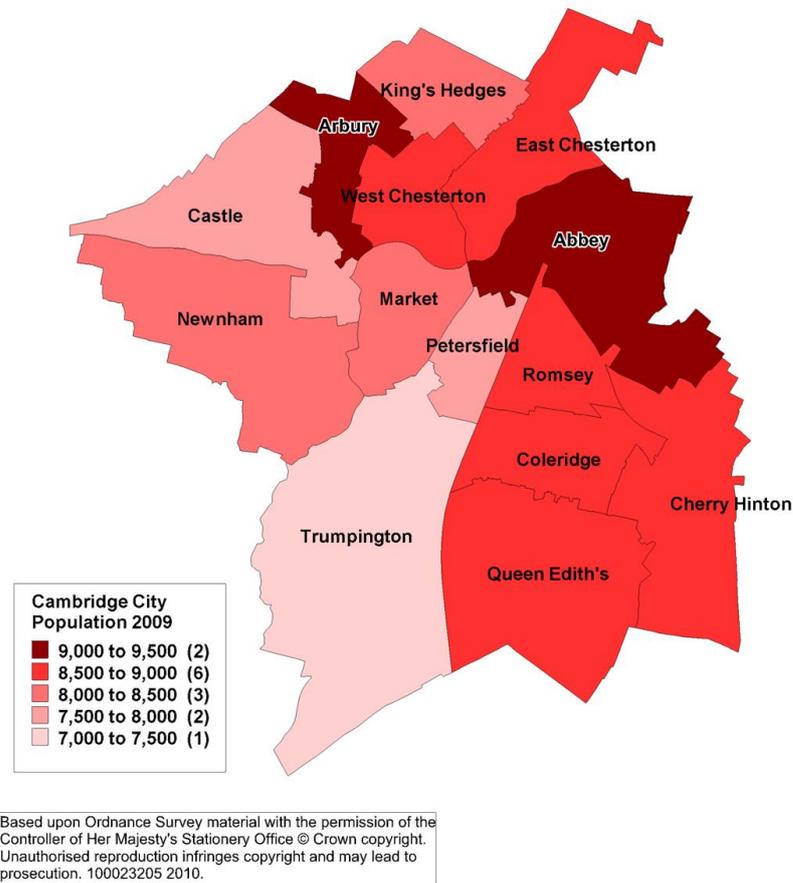
**Demographics and health**

- 3.3.1 Since 2001 the population of Cambridge has increased by over 11% from 109,000 to 121,300.<sup>14</sup> The greatest population increases have been experienced in East Chesterton, Coleridge and Trumpington wards. Market Ward, which broadly encompasses the City Centre experienced a more than 11 % increase in resident population between 2001 and 2010. Between 2011 and 2016 the population of Cambridge is projected to increase to 137,300 (an increase of 11%) and to over 148,000 by 2026 (an increase of 18%).<sup>14</sup>
- 3.3.2 Figure 3-1 presents Cambridge’s population by ward (2009). Looking forward to 2031, Cambridge’s population is expected to grow by 28% with the highest levels of growth in Trumpington, Castle and Abbey wards.<sup>15</sup>

<sup>14</sup> Cambridge City Council Annual Monitoring Report 2011

<sup>15</sup> Cambridge City Council (2011) Cambridge City Annual demographic and socio-economic report.

**Figure 3-1: Cambridge’s population by ward (2009)<sup>16</sup>**



- 3.3.3 In 2009, more than 60% of Cambridge’s population was aged 25 years or older. Although low by comparison with the other districts in Cambridgeshire (which show proportions of around 70% each) this is explained by the large student population within the City. In 2009 around 26,000 students studied at the two universities<sup>17</sup> in Cambridge.
- 3.3.4 Looking forward, the City’s age structure is expected to change. The proportion of 25-39 year olds is expected to decrease from 26% of the total population to about 19% by 2031, while the 40-64, 65-74 and 75+ age groups will increase by around 2 percentage points each suggesting that overall Cambridge’s population will age.<sup>18</sup>
- 3.3.5 Cambridge has the highest proportion of minority ethnic population in the county, with 11% of people from ethnic groups other than White British. Over 40 different languages are spoken in the City reflecting its diverse communities. The Council recognises the wider community benefit of faith groups as they can play an important role in supporting existing and newly emerging communities and providing community services.

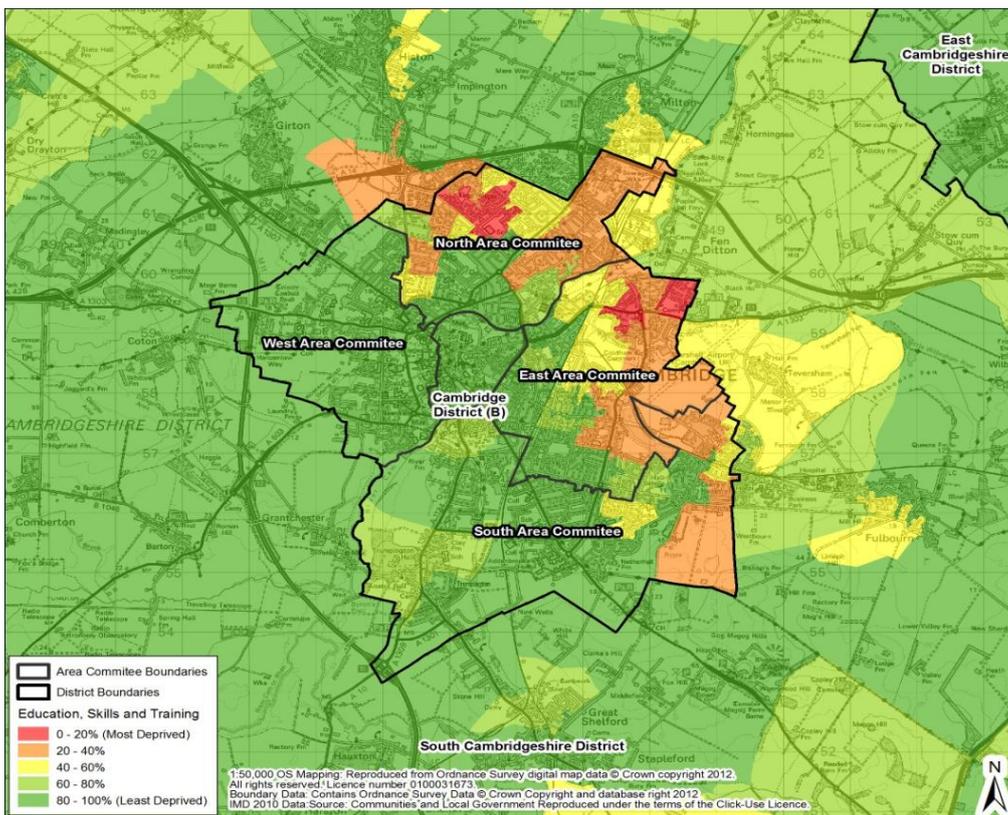
<sup>16</sup> Cambridge City Council (2011) Cambridge City Annual demographic and socio-economic report.

<sup>17</sup> The University of Cambridge and Anglia Ruskin University

<sup>18</sup> Cambridgeshire County Council (2011) Cambridge City: Annual demographic and socio-economic report [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/3B0B3A7B-E448-4D61-A853-0B5A1A467969/0/CambridgeCityDistrictReport2011.pdf> (accessed January 2012)

3.3.6 Cambridge is a prosperous City<sup>19</sup> 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 (see Figure 3-2). Nearly one person in nine and one child in five lives in a household claiming Housing (HB) or Council Tax Benefit (CTB), with half of all claimants concentrated in a fifth of the City's geographic area. In 2009 there were 13,122 claimants, partners and dependents receiving HB/CTB, an increase of 6% since 2008.<sup>20</sup> Furthermore, between 2009 to 2010 gross median household income dropped from £30,000 to £29,800 which appears indicative of a wider trend of increasing deprivation in the City. Between 2007 and 2010 the number of super output areas in Cambridge that are within the 40% most deprived in England increased from 11 to 20.<sup>21</sup>

**Figure 3-2: Map of Index of Multiple Deprivation (IMD): Education, Skills and Training domain**



3.3.7 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 qualification at all. Nonetheless, the percentage of pupils gaining 5 or more A\*-C grades in Cambridge has steadily increased from 49% in 2000 to 70% in 2010<sup>22</sup> and correspondingly Cambridge has less than 10%<sup>23</sup> of 16 to 18 year olds who are not in education, employment or training (NEET) which is one of the lowest levels in the country.

<sup>19</sup> Please refer to the Economy Section for further information

<sup>20</sup> Cambridge City Council (2010) Mapping Poverty in Cambridge City 2009

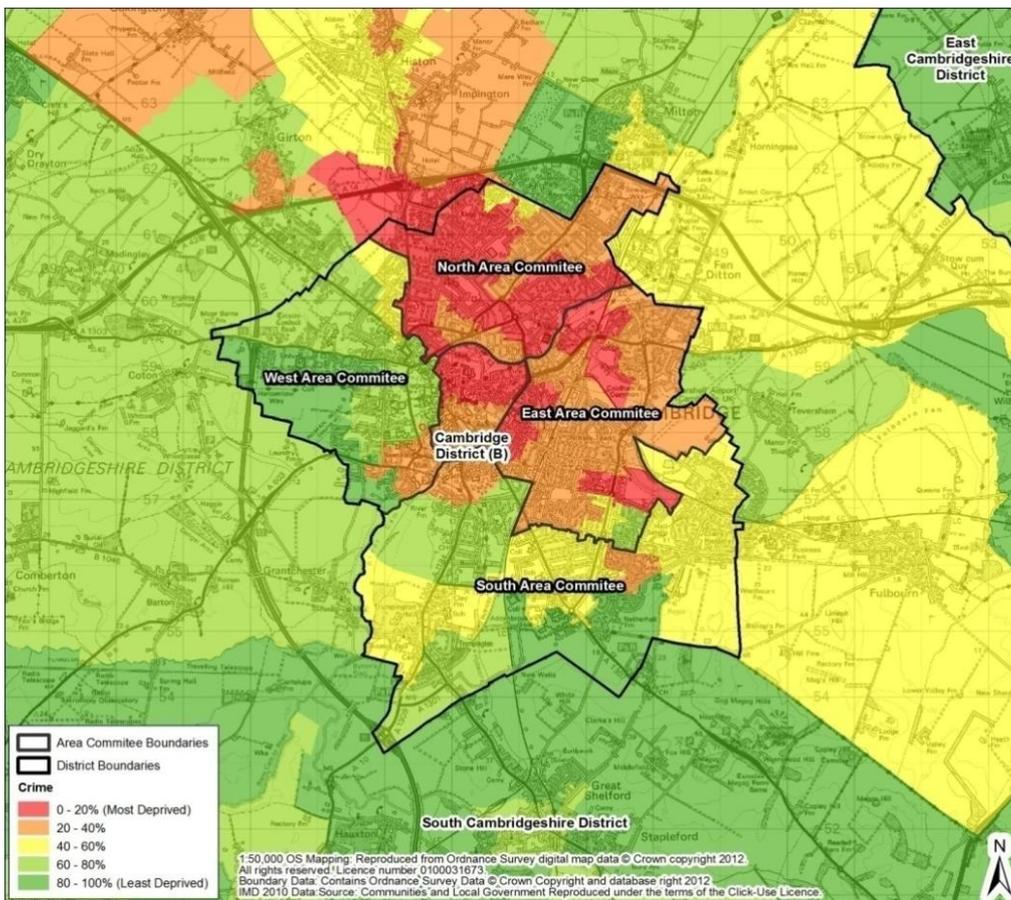
<sup>21</sup> Please refer to the Area Topic chapters for further information on area specific deprivation

<sup>22</sup> Cambridgeshire County Council (2011) Cambridge City: Annual demographic and socio-economic report [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/3B0B3A7B-E448-4D61-A853-0B5A1A467969/0/CambridgeCityDistrictReport2011.pdf> (accessed January 2012)

<sup>23</sup> Source: [online] available at: <http://www.cambridge-news.co.uk/Home/Disparity-in-youngsters-chances-374974.xnf?BodyFormat=0&> (accessed January 2012)

3.3.8 Cambridge experiences slightly higher rates of crime than for Cambridgeshire as a whole. However, overall the rate of crime has decreased in the City between 2009 and 2011 with notable decreases in burglary and violent crime.<sup>24</sup> The highest Crime levels in Cambridge are focused in the northern parts of the City (see Figure 3-3) and include areas identified as suffering from low levels of education and health deprivation highlighting the social link between these issues.

**Figure 3-3: Map of Index of Multiple Deprivation (IMD): Crime**



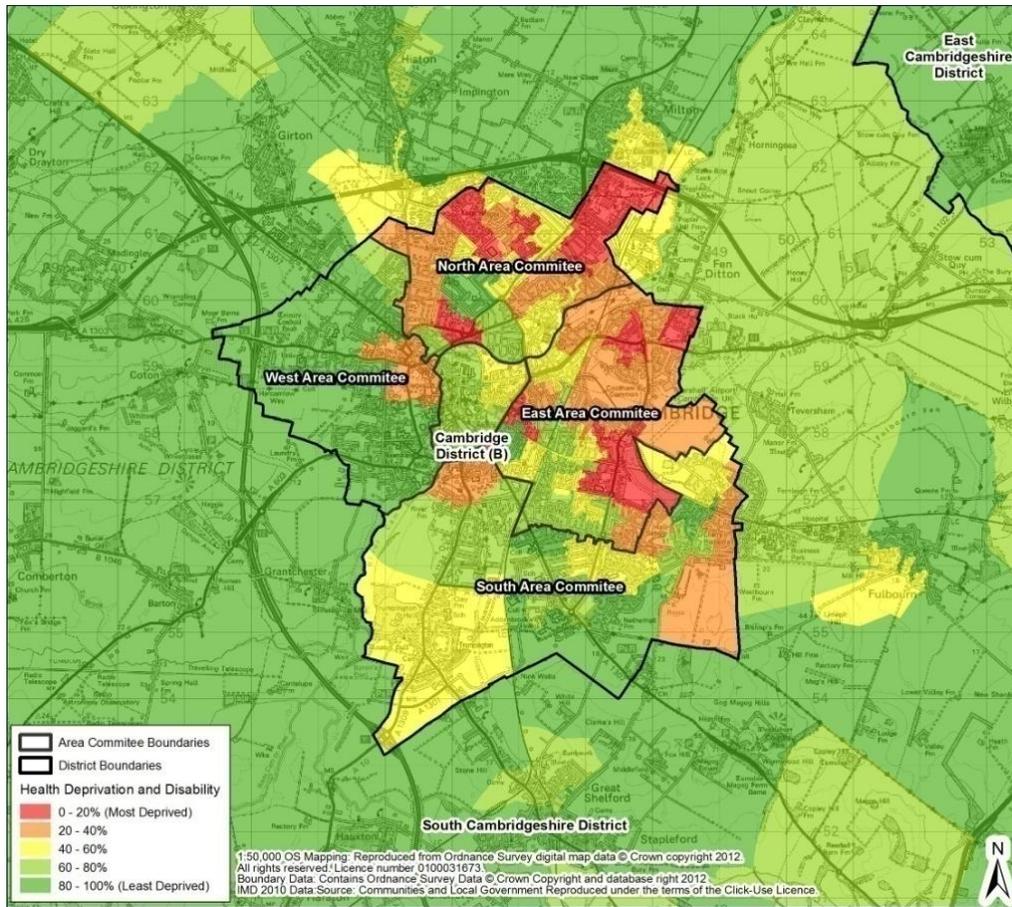
3.3.9 In terms of health Cambridge is well provided for in terms of hospitals, medical surgeries and other health facilities, many of which serve the east of England. Addenbrooke’s Hospital is the main local hospital for most of the Sub-region (excluding Huntingdon) and is also a centre of excellence for biomedical and biotechnology research and development. Life expectancy at birth is higher in Cambridge than in both Cambridgeshire and England and women are expected to live five years longer than men. However Cambridge also has higher levels of overall mortality compared with Cambridgeshire with the most common cause of premature death being circulatory diseases and cancer.<sup>25</sup>

3.3.10 The health deprivation and disability domain identifies the pockets of significant deprivation in the east and north of the City (see Figure 3-4).

<sup>24</sup> Source: [online] available at: <http://www.ukcrimestats.com/Constituency/65927> (accessed January 2012)

<sup>25</sup> Cambridgeshire County Council (2011) Cambridge City: Annual demographic and socio-economic report [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/3B0B3A7B-E448-4D61-A853-0B5A1A467969/0/CambridgeCityDistrictReport2011.pdf> (accessed January 2012)

Figure 3-4: Map of Index of Multiple Deprivation (IMD): Health Deprivation and Disability domain



3.3.11 The concentration of buses in central Cambridge is the single largest source of transport related pollutants in the city centre.<sup>26</sup> Although bus emissions are restricted by agreement with bus operators using the City centre through a Quality Bus Partnership which allocates a reducing emissions quota to each operator Cambridge still has an Air Quality Management Area encompassing the inner ring road and all land within it as a result of NO<sub>2</sub> emissions from vehicle traffic. There is also an AQMA declared for an area along the A14 between Bar Hill and Milton.<sup>27</sup> Studies have shown that symptoms of bronchitis in asthmatic children increase in association with long-term exposure to NO<sub>2</sub> and reduced lung function growth is also linked to NO<sub>2</sub> at concentrations currently measured (or observed) in cities in Europe.<sup>28</sup>

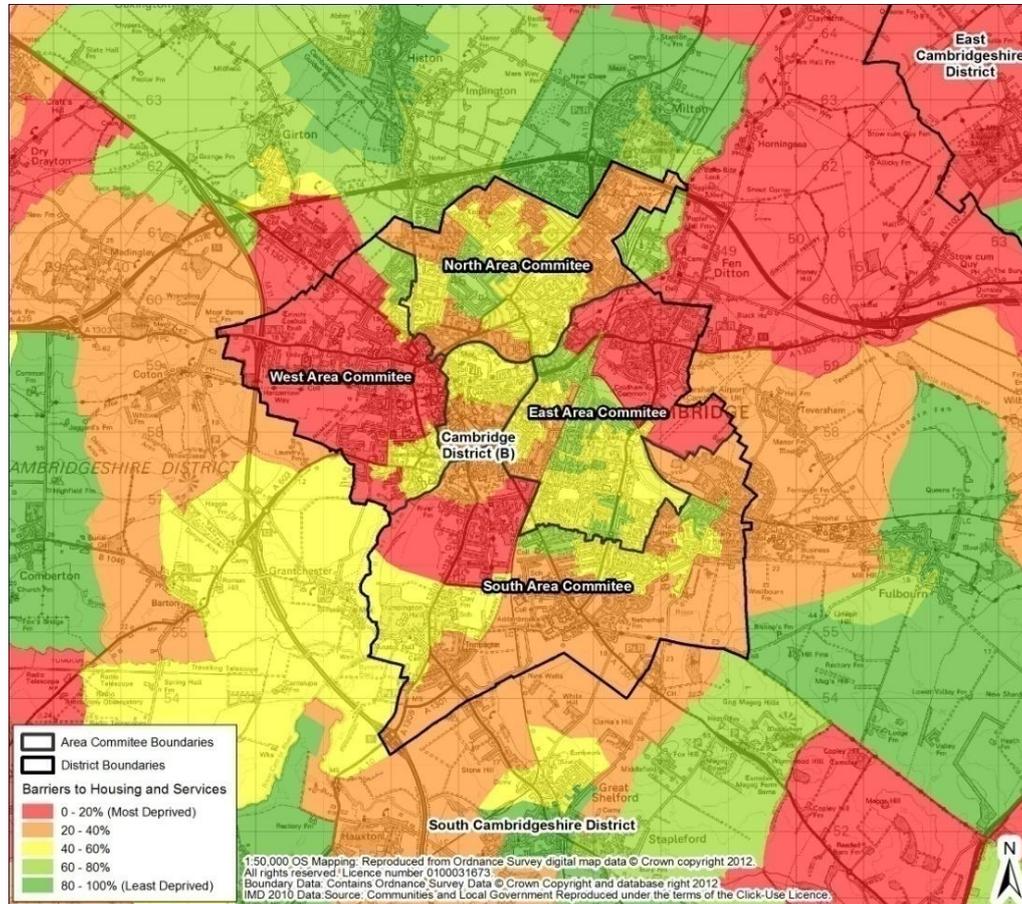
<sup>26</sup> Cambridgeshire County Council (2011) Cambridgeshire Local transport Plan 2011- 2026 [online] available at: [http://www.cambridgeshire.gov.uk/NR/rdonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi\\_scan\\_E956BCBE8ADBC89F=0&bcsi\\_scan\\_filename=LTP3PoliciesandStrategy.p](http://www.cambridgeshire.gov.uk/NR/rdonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=LTP3PoliciesandStrategy.pdf)

<sup>27</sup> Source: [http://aqma.defra.gov.uk/aqma-details.php?aqma\\_id=503](http://aqma.defra.gov.uk/aqma-details.php?aqma_id=503) (accessed January 2012)

<sup>28</sup> WHO (2011) [online] available at: <http://www.who.int/mediacentre/factsheets/fs313/en/index.html> (accessed 2012)

Housing

Figure 3-5: Map of Index of Multiple Deprivation (IMD): Barriers to Housing and Services



3.3.12 Cambridge’s relatively high prosperity and educated workforce means that 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, which is more appropriate for first time buyers, against the cheapest housing available was around 9.5 in 2010, up from 8.2 in 2009. The average house price in Cambridge is now around £321,000, an increase of 12% from 2009.<sup>29</sup> This highlights the continuing issue of affordability, in particular for first time buyers. Figure 3-5 identifies those areas with the highest barriers to housing and services.<sup>30</sup>

3.3.13 Work undertaken in 2009 in connection with updating the Regional Spatial Strategy (RSS) housing targets concluded that a lower target than the 19,000 set out in the RSS would be more realistic. In their response to the consultation on the Review of the RSS. 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 dwellings per year) between 2011 and 2031. This

<sup>29</sup> Cambridge City Council Annual Monitoring Report 2011

<sup>30</sup> This domain measures the physical and financial accessibility of housing and key local services. The indicators fall into two sub-domains: ‘geographical barriers’, which relate to the physical proximity of local services, and ‘wider barriers’ which includes issues relating to access to housing such as affordability. Further information [online] available at: <http://www.communities.gov.uk/documents/statistics/pdf/1871208.pdf> (accessed January 2012)

level of provision is one which is much more realistic than the adopted RSS target of 19,000 to 2021. It is also supported by the findings of the 2009 Cambridgeshire Development Study.

- 3.3.14 The adopted RSS target is technically still a material consideration until it is abolished through the Localism Act 2011. Local Authorities will then be responsible for establishing the right level of local housing in their areas. The Local Plan Review will set out the appropriate level of future provision in Cambridge to 2031
- 3.3.15 If 14,000 dwellings are to be provided between April 2011 and the end of March 2031, the annualised projected requirement would be 700 dwellings per annum. Over the next 5 years (2012/13 to 2016/17), 3,500 will be required. Projected completions over the next 5 years are 6,745 so on this basis the Council currently has a generous five-year supply of 196%. Currently the draft National Planning Policy Framework would require Local Planning Authorities to:
- “identify and maintain a rolling supply of deliverable sites sufficient to provide five years worth of housing against housing requirements. The supply should include an additional allowance of at least 20 percent to ensure choice and competition in the market for land”*
- 3.3.16 Given this the Council currently has an excess of the required supply target, this equates to 9.6 years supply when measured against the five-year supply target of 700 dwellings per year.
- 3.3.17 The emerging Strategic Housing Land Availability Assessment (SHLAA) will address the longer term land supply for housing over the Plan period.
- 3.3.18 Between 1999 and 2009 housing development has been concentrated on sites within the existing areas of the City. However, this will change in forthcoming years, as development sites on the fringes of the City are released from the Green Belt by the 2006 Local Plan, gain planning permission and are constructed. These include:
- Trumpington Meadows - 1,200 new homes (557 within the City)
  - Glebe Farm – 286 homes
  - Clay Farm – up to 2,300 homes
  - Bell School – 347 homes
  - North West Cambridge – outline application for 3,000 homes and 2,000 student units (1,500 & 1,000 units in the City respectively)
  - NIAB – 1,593
- 3.3.19 The North West Cambridge site is land holdings owned by Cambridge University and much of this development will help support the University’s growth.
- 3.3.20 In addition to a general need for more housing, there is also an acute need for more affordable houses in Cambridge, with an identified need of 1,910 more affordable houses per year; an increase of 220 since 2010. The current Local Plan policy is for 40% or more affordable housing to be provided on sites of 0.5 hectares or 15 dwellings or more. According to the Cambridgeshire County Council Research and Monitoring Team approximately 4,900 homes have been built in the city since 2001 of which 27% were affordable.<sup>31</sup> 82% of the need for affordable housing is estimated as being for social rented and 18% for intermediate tenures. In 2009 8% of the City’s housing stock was “Houses in Multiple Occupation” (HMO).<sup>32</sup> Anecdotal information indicates this has now risen to 12.6% and around 5000 homes in the city of which just over 1000 are thought to be occupied by students.

<sup>31</sup> Cambridge City Council (2011) Cambridge City Annual demographic and socio-economic report

<sup>32</sup> Cambridge City Council (2009) Housing Strategy 2009 - 2012

- 3.3.21 In 2009 there were 7,362 applicants on the Council's Housing Need's Register, an increase of 18% from 2008. Based on household size, the greatest identified need is for 1 and 2 bed accommodation.<sup>33</sup>
- 3.3.22 The AMR identifies that Cambridge has around 55 Gypsy and Traveller Households living in five permanent licensed Gypsy and Traveller pitches on two licensed caravan sites (not specifically designated as G&T) and in local authority housing. The Gypsy and Traveller Needs Assessment identified the need for one pitch between 2021 and 2026.<sup>34</sup>

### Community facilities

- 3.3.23 Cambridge acts as a service centre, meeting the needs of residents of the City and surrounding area for community facilities. It has a vast heritage of museums, libraries, collections, culture and arts activities, and leisure facilities much of it centred around the University of Cambridge. These facilities provide not only a focus for local communities but also provide greater opportunities for integration between local communities, students and visitors helping to add to the vibrancy and vitality of Cambridge.
- 3.3.24 In particular, Cambridge has a range of leisure facilities that include 2 cinemas, 3 snooker/pool halls, 4 nightclubs, nine health clubs and 1 ten-pin bowling centre. These facilities are used both by Cambridge residents and by residents outside of Cambridge. Anecdotal evidence indicates there has been pressure on leisure facilities in recent years, including the loss of public houses, and also planning applications for change of use from a pool hall to a supermarket and a nightclub to restaurant and flats.
- 3.3.25 Cambridge benefits from some 744 hectares of Protected Open Space, of which 348 hectares on 163 sites is publicly accessible. This provides opportunities for recreation to support the health and well being of local communities. Cambridge also has a number of civic spaces, including the Market Square, which is important for a range of recreational, commercial and ceremonial reasons.<sup>35</sup>
- 3.3.26 While Cambridge provides a good standard of general community facilities there has been a growing recognition of the increasing demand for childcare and education provision in Cambridge due to increasing fertility rates and rising birth rates. This has given rise to demand for childcare and primary school places, which will eventually feed through into secondary school and further education provision. Currently the average percentage of primary aged children attending their catchment school in Cambridge is 56.9% compared to 72.1% for Cambridgeshire.<sup>36</sup> Similarly the percentage of secondary aged children attending their catchment school in Cambridge is 54.5% compared to 79.3% for Cambridgeshire. In response to increasing demand for childcare and education provision in Cambridge a number of schools are expanding in size including a number of new primary schools and a secondary school as part of the forthcoming urban extensions.

## 3.4 What would the situation be without the plan?

- 3.4.1 The Local Plan (2006) makes provision for a considerable amount of housing to be developed in the urban extensions in the short to medium term. Existing policies should also ensure delivery of 40% affordable housing, apart from North West Cambridge where 50% will be delivered for University key workers. Notwithstanding the high provision on these sites, the demand for affordable housing is still likely to increase, exacerbating the already existing difference between affordable housing demand and supply. There is an identified need for a mix of types and sizes, in particular smaller properties and affordable properties for first time buyers, which is unlikely to

<sup>33</sup> Cambridge City Council (2009) Housing Strategy 2009 - 2012

<sup>34</sup> Baker, T (2011) Cambridge Area Gypsy and Traveller Accommodation Needs Assessment (GTANA) [online] available at: <http://www.peterborough.gov.uk/pdf/env-plan-evibase%202011%20GTANA.pdf> (accessed January 2012)

<sup>35</sup> Source: From discussions with Cambridge City Council

<sup>36</sup> Source: [online] available at <http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html> (accessed January 2012)

be met with the current policy framework. This demand may further increase bearing in mind the increasing proportion of HMO in Cambridge since 2009.<sup>37</sup>

- 3.4.2 The high cost of housing also forces people to move further from the City in order to be able to afford a home which has knock on consequences for other sustainability issues including the need to commute and increased congestion in the City.
- 3.4.3 The trend towards an ageing population also means that there may be an increased shortage of housing appropriate for elderly and disabled people. The existing Local Plan (2006) places strong emphasis on quality of housing design including for affordable housing and housing for people with disabilities. The application of lifetime homes standards to new housing development can assist in addressing the problem.
- 3.4.4 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. Furthermore there is an identified trend of increasing deprivation that may continue if not effectively addressed.
- 3.4.5 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. Cambridge's increasing population and rising birth rates will lead to greater pressure on existing primary and secondary education provision and potentially lead to intensification of education sites on school playing fields and play areas.
- 3.4.6 The Green Belt, open spaces and grounds around buildings and the extent of green spaces within the City form a vital part of the character of Cambridge. However, these areas (including the Green Belt) may face pressure to meet future housing need.
- 3.4.7 Although Policy 4/14 aims to minimise the impact of development within or adjacent to the AQMA Cambridge continues to breach national air quality objectives across a large part of the city. It is likely that this will continue with planned future development activity.

### 3.5 What are the key issues and opportunities?

- 3.5.1 There is a need to:
  - 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

<sup>37</sup> Cambridge City Council (2009) Housing Strategy 2009 - 2012

- 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

**3.6 Are there any data gaps?**

- There is limited information on the current provision and need for places of worship, church halls, community centres, public halls public houses, and meeting places
- There is limited information to the extent of contaminated land within Cambridge
- There is limited information on noise levels and the impact of noise on communities and health in Cambridge

## 4 ECONOMY

### 4.1 Introduction

4.1.1 Local economies are open to global, national and regional influences and changes in the wider economy. This presents numerous threats and opportunities. Recognition of local strengths and weaknesses, and public private partnership, are important in ensuring local preparedness to adapt to change, address threats and respond to opportunities. A healthy and prosperous economy is key to a healthy society (e.g. town vibrancy, good environments to live and work) and with careful planning it should also enhance environmental well-being.

4.1.2 Local economies are characterised by a range of interlinked factors, including housing and transport which, within this report, are discussed in Sections 3 and 5. This section focuses on employment, skills and education as key factors that influence the local economy of Cambridge.

### 4.2 What's the policy context?

4.2.1 **Planning Policy Statement (PPS) 1**<sup>38</sup> states that planning should make suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life and contribute to sustainable economic development. As such, planning authorities should ensure that suitable locations are available for industrial, commercial, retail, public sector (e.g. health and education) tourism and leisure developments, so that the economy can prosper; focus development that attracts a large number of people in existing centres, and set a clear vision for the future pattern of development.

4.2.2 **PPS 4**<sup>39</sup> aims to deliver more sustainable patterns of development, reduce the need to travel, especially by car and respond to climate change. It also aims to promote the vitality and viability of town centres and other centres and to raise the quality of life and the environment in rural areas by promoting thriving, inclusive and locally distinctive rural communities whilst continuing to protect the open countryside for the benefit of all. PPS4 provides a series of guidelines to meet these objectives. These include assessing the need and supply of land for economic development, planning for that need by setting a clear economic vision, supporting existing businesses, using existing land efficiently and promoting sustainable transport opportunities. Preference for sites for economic development should be given to:

- Locations in appropriate existing centres where sites or buildings for conversion are, or are likely to become, available within the Plan period;
- Edge-of-centre locations, with preference given to sites that are or will be well connected to the centre;
- Out-of-centre sites, with preference given to sites which are or will be well served by a choice of means of transport and which are closest to the centre and have a higher likelihood of forming links with the centre; and
- Preference should also be given to the needs of deprived areas above similar sites in less deprived areas.

4.2.3 PPS4 sets out the sequential approach for 'main town centre uses' – this includes retail, leisure, arts, culture and tourism and also offices. However, the Draft NPPF is seeking to remove the sequential approach for office development.

<sup>38</sup> Planning Policy Statement 1: Delivering Sustainable Development (2005) [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed January 2012)

<sup>39</sup> Planning Policy Statement 4: Planning for Sustainable Economic Growth (2009) [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement4> (accessed January 2012)

- 4.2.4 The **Draft National Planning Policy Framework** (NPPF), which is expected to replace PPSs and Planning Policy Guidance (PPGs) contains a presumption in favour of sustainable development and emphasises that significant weight should be placed on the need to support economic growth through the planning system.
- 4.2.5 The **Local Plan** (2006) contains a number of objectives which relate to the economy. These are:
- To promote economic growth in sustainable and accessible locations;
  - To promote the growth of and linkages between employment clusters such as high technology/biotechnology/ICT/higher education;
  - To recognise innovation and enable Cambridge's role as a world leader in higher education, research, and knowledge based industries;
  - To implement the selective management of the economy;
  - To protect the best industrial and storage areas and provide a range of new employment land; and
  - To maintain and enhance the diversity of jobs available in the City.

### 4.3 What's the baseline situation?

- 4.3.1 75% of Cambridge's population is of working age (16-64) and of those 75% are economically active (working or seeking work).<sup>40</sup> Nevertheless, Cambridge's labour demand is greater than its available workforce with a jobs-to-population ratio of 1.13 in 2008. As a result Cambridge has very low rates of Jobseeker's Allowance (JSA) claimants (1.8%) compared to the rest of England (3.5%).<sup>41</sup>
- 4.3.2 In 2010 Gross Value Added (GVA)<sup>42</sup> per job in Cambridge was £40,000, which was slightly below that of neighbouring South Cambridgeshire (£45,000 per job). Figures for Cambridge and South Cambridgeshire show an annual economic output (GVA) approaching £7.5bn and according to the 2010 UK Competitiveness Index, Cambridge is one of the five most competitive cities in the UK and it is ranked 32<sup>nd</sup> for competitiveness out of 380 authorities. Furthermore, Cambridge is highlighted as one of the most recession-proof cities in the UK and one of those likely to grow significantly over the coming years.<sup>43</sup> The Cambridge economy is substantial, productive and competitive, and contains institutions and firms of local and national significance.
- 4.3.3 Within this overall positive picture of the Cambridge economy, parts of Cambridge still experience significant deprivation. For example, while the rates of Jobseeker's Allowance (JSA) claimants (% of all people aged 16 to 64) was 1.8% in Cambridge as a whole, compared with 3.5% in the rest of England, this low average may mask local disparities. In particular there are pockets of employment and income deprivation in the northern and north-eastern parts of the City with the number of JSA claimants particularly concentrated in Abbey Ward and Kings Hedges<sup>44</sup> (see Figure 4-1 and Figure 4-2).

<sup>40</sup> Cambridgeshire County Council (2011) Cambridge City – Annual demographic and socio-economic report [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/3B0B3A7B-E448-4D61-A853-0B5A1A467969/0/CambridgeCityDistrictReport2011.pdf>

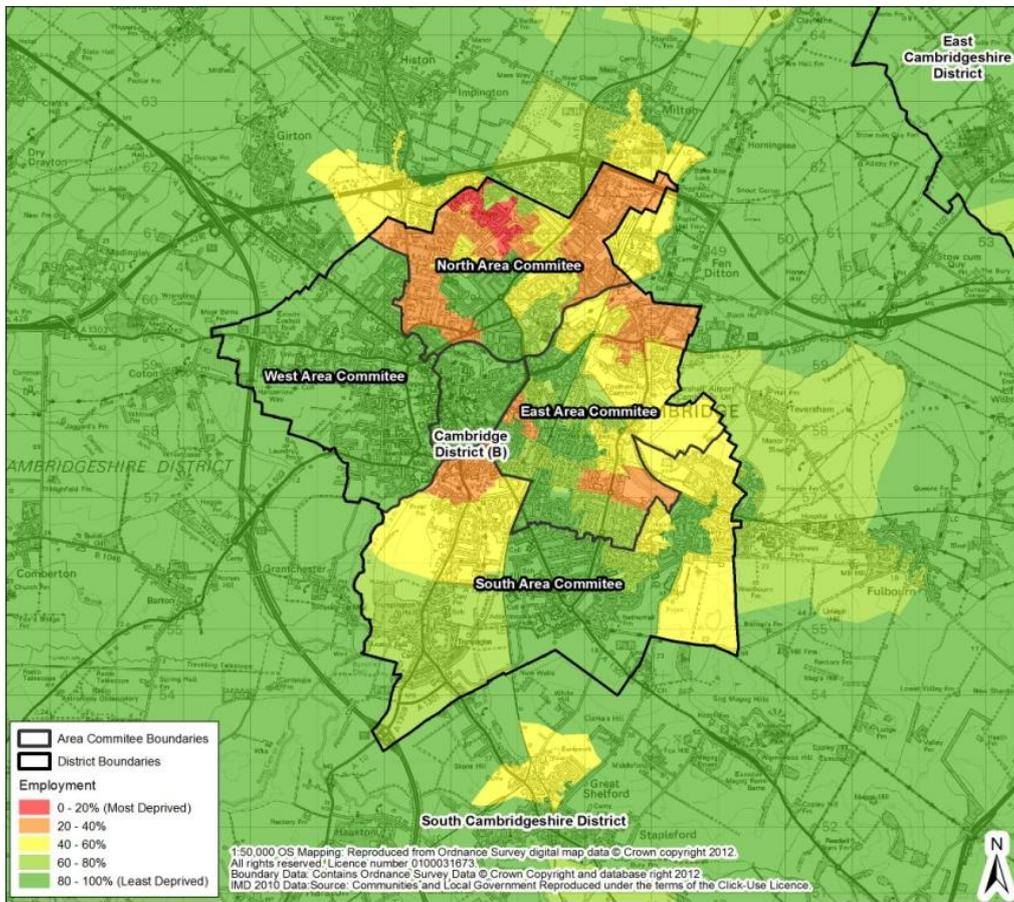
<sup>41</sup> Ibid

<sup>42</sup> Gross Value Added is the value of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production (the difference between input costs and output prices). GVA represents the incomes generated by economic activity within different parts of the UK economy

<sup>43</sup> Centreforcities (2011) Cities Outlook 2011 [online] available at: [http://www.centreforcities.org/assets/files/Cities%20Outlook%202011/CITIES%20OUTLOOK\\_2011.pdf](http://www.centreforcities.org/assets/files/Cities%20Outlook%202011/CITIES%20OUTLOOK_2011.pdf)

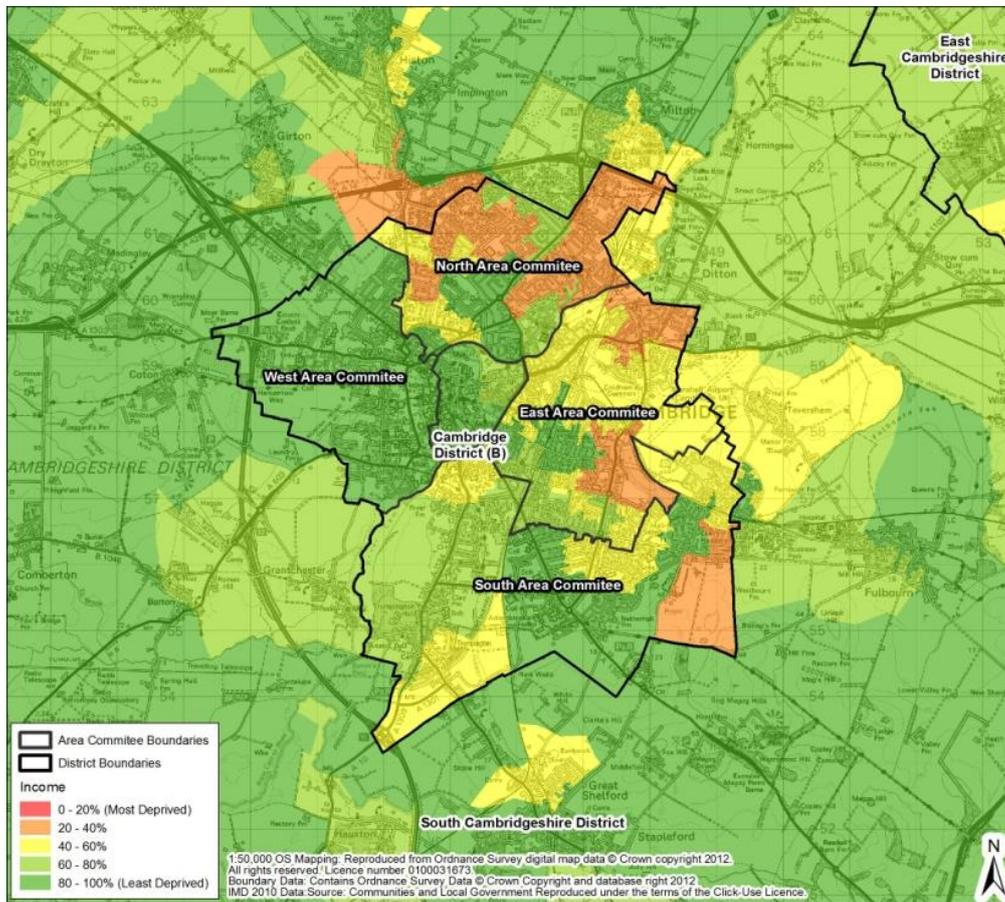
<sup>44</sup> Source: <http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html> (accessed January 2012)

**Figure 4-1: Map of Index of Multiple Deprivation (IMD): Employment domain**



4.3.4 Figure 4-1 demonstrates that overall Cambridge is above average in terms of employment deprivation, but with significant pockets of deprivation especially in the northern and eastern parts of the City.

**Figure 4-2: Map of Index of Multiple Deprivation (IMD): Income domain**



4.3.5 Figure 4-2 demonstrates that income deprivation in Cambridge is located in similar areas to employment deprivation, principally in the north and east of Cambridge.

**Economic sectors**

4.3.6 Cambridge has four important sectors that contribute to the local economy. These are 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.

**Higher and Further Education and research community**

4.3.7 Cambridge’s wider research community which encompasses the University of Cambridge, Anglia Ruskin University and various research institutes, provide genuinely world class science and research. On virtually all the majority of global rankings, Cambridge University is consistently among the top five in the world. In the UK it is regularly placed at the top of the University rankings.

4.3.8 Higher and further education contributes significantly to the local economy. The University of Cambridge employed more than 11,700 people directly and indirectly supported more than 77,000 jobs in 2006. It was estimated at the time that if the university did not exist, the economic impact on the UK economy between 2006 and 2016 would be a £4.4 billion loss in GDP and approximately 10,800 fewer jobs, and the impact on the region would be even greater. This excludes the importance of the technology cluster associated with the university.

- 4.3.9 If you add the value derived from the interaction of the university with the business community the value would be greater still. University of Cambridge spin-outs have attracted more venture capital investment than any other UK university. Cambridge was at the forefront of university-business interaction in 2006-07, and filed 112 patents, generated 35 licences, increased its overall portfolio of active spin-outs to 45 and generated income of almost £3.5 million from intellectual property.
- 4.3.10 There are 28 language schools and 3-4 specialist schools/tutorial colleges in Cambridge. These make an important contribution to the City's economy with fees and accommodation generating around £50million per annum and spend in the local area thought to exceed £78 million per annum. The equivalent of 124,000 student weeks per year were taught at the language schools in 2009, this had increased from 122,000 in 2007. There has been a 55% increase in the last 17 years. This now represents around 30,000 language students passing through the schools every year. As a result, the language schools generate significant demand for additional student accommodation.
- 4.3.11 Accommodation for University of Cambridge students and staff is provided within the colleges and other properties owned by the University. To ensure the University is able to retain and attract key staff, key-worker affordable housing will be provided on the North-West Cambridge Site. This is expected to meet current demand.
- 4.3.12 Anglia Ruskin University (ARU) does not currently have sufficient student residential accommodation and as a result is heavily dependent on houses acquired on short leases and on lodging accommodation with local families.<sup>45</sup> Significant improvements to the East Road Campus and student accommodation being developed at the CB1 and Brunswick sites will ease but not fully address this demand.
- 4.3.13 The language schools attract a large number of short term students who generally reside with local host families during their stay providing a source of additional income for local families. A number of schools also have leases on speculatively built student hostels to house their students over the summer months. Very few provide their own permanent accommodation.<sup>46</sup> Language schools are increasingly offering extended courses and courses with a duration of a year or more.

#### High tech sector

- 4.3.14 Over the last 50 years, Cambridge has developed an advanced technology-based business community. Disaggregated data,<sup>47</sup> last produced in 2006, reported that there were 458 high tech businesses in Cambridge compared to 480 in South Cambridgeshire and that 16,390 were employed in the high tech sector in Cambridge compared to 17,252 in South Cambridgeshire.
- 4.3.15 In terms of its structure, Cambridge and South Cambridgeshire's high tech business community is made up of a few large businesses and a large number of small, diverse and rapidly growing businesses. There is a large sectoral mix with businesses specialising in drug discovery, bioinformatics, software, computer hardware, electronics, ink-jet printing, computer games, clean tech and web-based new media all represented. Some of the high tech businesses are producing physical products but increasingly, many are not. Instead many focus on providing services surrounding scientific knowledge, such as protecting intellectual property. The sector is predicted to grow rapidly in the future.
- 4.3.16 The growth of the high-tech cluster in Cambridge has been supported through 'selective management' of the economy. Under this policy employment land in and close to Cambridge is

<sup>45</sup> CCC topic paper on Higher & Further Education

<sup>46</sup> *ibid*

<sup>47</sup> Cambridgeshire County Council (2006) Employment in the high tech community [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdonlyres/E394F26D-3925-4B75-AF95-BEF041B1BE82/0/HiTech06.pdf>

reserved for uses which include for high tech businesses concerned primarily with commercial research and development.

### **Retail sector**

- 4.3.17 Cambridge City Centre is a regional shopping centre. Investment in the Grand Arcade was important in boosting this retail offering. Cambridge Retail Park (on Newmarket Road) and more recently Cambridge Leisure Park (on the old cattle market site) compliment the established retail and cultural offer. Shopping in the City Centre is split between the historic core and Fitzroy / Burleigh Street areas, which includes the Grafton shopping centre. In recent years retail development has taken place in the City Centre with the development of the Grand Arcade and Christ's Lane, and a small expansion of the Grafton Centre. The historic nature of the City Centre is such that there are few sites available for further retail expansion.
- 4.3.18 In addition to the City Centre there are three District Centres: Mitcham's Corner, Mill Road East, and Mill Road West. Mill Road in particular has a great diversity of independent shops and retailers. Retail warehousing providing mainly bulky goods is found in out of centre sites concentrated around Newmarket Road, at the Cambridge Retail Park and the Beehive Centre.
- 4.3.19 The Cambridge Sub-Region Retail Study (2009) showed that retail in Cambridge was performing well. The conclusions of the study were that it would not be necessary to plan for significant new retail development in Cambridge City Centre in the short term and that the City Centre should go through a "settling down" period following the introduction of Christ's Lane and the Grand Arcade shopping schemes. It concluded that the focus should be on infill development and/or replacement of existing floorspace which is of a poorer quality. In addition, while the study demonstrates that out-of-town retail is performing well, it advises against the provision of further out-of-centre retail development. However, this study may no longer be up to date as it was produced just before the economic recession and therefore the growth rates used may have been over optimistic. In addition, the study took into account the development of Cambridge East and this development will now not be taking place in the short to medium term.
- 4.3.20 The North West Cambridge Supplementary Retail Study (SRS) found that there was a qualitative need for a main foodstore in NW Cambridge as this part of the City is poorly served by main foodstores at present. This means that a high proportion of existing residents shop at out-of-centre stores such as Milton and Bar Hill, causing unsustainable travel patterns. This situation is likely to be exacerbated by the new population at the development sites in North West Cambridge; the University site, NIAB sites and Orchard Park.
- 4.3.21 Informal Planning Policy Guidance (IPPG) on Foodstore Provision in North West Cambridge was produced jointly with South Cambridgeshire District Council in March 2011. The IPPG sets out a strategy for a medium sized supermarket (2,000 sq m net floorspace) in the local centres at both the University site and NIAB site, and a small supermarket in the local centre at Orchard Park.

### **Tourism**

- 4.3.22 Cambridge is an important international visitor destination. The Local Plan seeks to manage rather than promote tourism.<sup>48</sup> Cambridge's strengths in relation to tourism are important in understanding the area's current economic character. The fact that Cambridge continues to attract academics and business people from around the world is crucial in terms of its overall profile while international tourists – of all forms – provide a key source of income and one that is increasingly significant in relation to many of the Cambridge colleges as well as the commercial tourism sector. The tourism sector generates £351 million for the local economy and employs over 6,500 people.

<sup>48</sup> Cambridge City Council (2006) Cambridge local Plan 2006 [online] available at: <http://www.cambridge.gov.uk/public/pdfs/cccl-plan-2006.pdf>

- 4.3.23 The East of England Tourism's Volume and Value Study 2007 for Cambridge<sup>49</sup> identified that an estimated 3 million tourists visited Cambridge for a day trip, spending a total of £130 million; and over 1 million tourists visited Cambridge and stayed for more than a day. The figures indicate that overseas visitors stay on average for 8 nights whereas UK visitors spend an average of 2 nights in the City. Overseas visitors also spend, on average, more money than their UK counterparts. The estimated value of tourism to Cambridge is over £473 million.
- 4.3.24 The large numbers of visitors to Cambridge create demand for short stay accommodation in and around Cambridge. It is understood the City is attempting to increase hotel provision to encourage longer stays and fewer day trips.

#### Employment forecasts

- 4.3.25 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. A forecast, produced by Cambridgeshire County Council's Research Group, suggested that the resident labour force of Cambridge and South Cambridgeshire has increased by a relatively modest 6,800 between 2001 and 2006. However, this probably excludes the most recent migrant workers<sup>50</sup>, who could add up to 2,700 to this figure, giving 9,500 in total. The forecasts suggest that over the fifteen years from 2006 to 2021 the resident labour force is likely to increase by a further 28,750. This forecast was published in 2009. New forecasts will be released in February/ March 2012.

#### Employment land review

- 4.3.26 The Council's Employment Land Review (ELR) reviewed trends in employment land over the period 1998 to 2006. The ELR found that gains in employment land (particularly R&D and offices) were focussed on the edge of the City and while losses to employment land were in the City Centre. The ELR found a potential unconstrained supply of 135 ha of previously undeveloped consented and allocated land with potential for 611,000m<sup>2</sup> of development; however very little of this was in the City Centre.
- 4.3.27 Since the ELR was published there have been a number of changes in circumstances in Cambridge (including the recession, the inability to develop the airport site at Cambridge East and the withdrawal of the A14 improvement scheme) and as a result the Council is currently reviewing and updating the ELR.

### 4.4 What would the situation be without the Plan?

- 4.4.1 The Local Plan (2006) contains a number of policies to protect and enhance the local economy. These relate to promoting growth in sustainable and accessible locations, promoting growth of and linkages between employment clusters, supporting the innovation sector and selectively managing the provision of buildings for offices, high tech uses, R&D uses and educational uses.
- 4.4.2 There is therefore 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<sup>51</sup>, it is possible that the Local Plan (2006) would not capitalise fully on the strengths of the local economy.
- 4.4.3 **Higher and further education** – The higher and further education sector places a high demand on existing housing provision in Cambridge. The universities are affected by housing affordability in Cambridge, which is harming their ability to recruit and retain key workers. Furthermore, the growth of specialist language schools in Cambridge places an additional demand on housing. To some extent this is partially offset by the use of host families. While land for University uses is

<sup>49</sup> East of England Tourism (2007) Volume and Value study [online] available at: <http://www.cambridge.gov.uk/public/docs/Tourism%20volume%20and%20value%20study.pdf>

<sup>50</sup> From discussions with Cambridge City Council

<sup>51</sup> SWQ (2011) Cambridge Cluster at 50, The Cambridge Economy: retrospect and prospect

prioritised in the Local Plan (2006) there is still a shortfall of affordable accommodation for University key workers and staff. This will be addressed in the short term with the development of the North West Cambridge site.

- 4.4.4 More specifically the Local Plan (2006) prevents the expansion of new language schools and specialist schools/tutorial colleges within Cambridge. Without the revised plan the expansion of language schools will be prevented, which given their contribution to the local economy, could be detrimental. On the other hand, continuing to prevent their expansion will limit the additional demand for accommodation.
- 4.4.5 **High tech sector** – Without the Plan high-tech businesses would not be properly encouraged through the planning system. There is currently insufficient space in Cambridge for small R&D businesses to grow and for larger businesses to have their headquarters. As a result, growing businesses tend to move out of Cambridge City Centre.
- 4.4.6 It is also likely that without the Plan high tech businesses will not be strategically placed to benefit from linkages to the research community and other high tech businesses.
- 4.4.7 **Tourism** – The significant contribution of tourism to the local economy may not be fully capitalised on in the Local Plan (2006), which states that Cambridge City Council has a ‘policy of managing rather than promoting tourism’<sup>52</sup>. Without the Plan it is likely that the contribution of tourism to the local economy would not be fully supported through the provision of adequate tourist accommodation.
- 4.4.8 **Retail** – Major retail expansion in the City is not currently promoted in the existing policy framework and no sites are allocated solely for retail provision. However, there is an identified need for additional convenience shopping in the north of Cambridge.

#### 4.5 What are the key issues and opportunities?

4.5.1 There is a need to:

- 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

<sup>52</sup> Cambridge City Council (2006) Cambridge Local Plan [online] available at: [http://www.centreforcities.org/assets/files/Cities%20Outlook%202011/CITIES%20OUTLOOK\\_2011.pdf](http://www.centreforcities.org/assets/files/Cities%20Outlook%202011/CITIES%20OUTLOOK_2011.pdf) (accessed January 2012)

**4.6 Data gaps**

- There is limited information on projected future housing needs of University Colleges to meet student demand. It is understood the Council is discussing this with the University and Colleges
- There is limited information on the future needs and expansion plans of Anglia Ruskin University and whether this can be accommodated within the terms of their recently approved Master Plan for their East Road Campus. It is understood the Council is discussing this with the University
- There is limited information on the required demand and provision of hotel accommodation for long term stays. It is understood the Council is due to undertake a study on this

## 5 TRANSPORT

### 5.1 Introduction

5.1.1 Transport plays a vital role in supporting sustainable development. In economic terms an efficient and well managed transport network connects localities to national and international markets, secures the localised benefits of agglomeration economies and underpins private sector productivity gains. In social terms good connectivity can stimulate labour market flexibility through improvements in accessibility, allowing a wider range of the population to access employment opportunities. Environmental impacts can be reduced by sustainable transport schemes which may include fast, efficient and affordable public transport as well as the provision of walking and cycling infrastructure.

### 5.2 What's the policy context?

5.2.1 **PPS1** sets out the Government's overarching planning policies on the delivery of sustainable development of which transport has an integral role to play. Good spatial planning can reduce the need to travel and encourage a shift towards more sustainable patterns of transport development. PPS1 states that planning should actively manage patterns of urban growth to encourage a modal shift away from the car by making the fullest use of public transport and focussing development in existing centres near to major public transport interchanges.

5.2.2 **PPS3** underpins the delivery of the Government's strategic housing policy objectives, and seeks to ensure that development is easily accessible and well-connected to public transport and community facilities and services. It also requires that new developments make efficient use of space, is safe, accessible and user-friendly. Proposed development should take a design-led approach to the provision of car-parking space, that is well integrated with a high quality public realm and streets that are pedestrian, cycle and vehicle friendly.

5.2.3 **PPS4** sets out the Government's policy framework for planning for sustainable economic development in urban and rural areas through more sustainable patterns of development including reducing the need to travel, especially by car.

5.2.4 **PPG13** has the objectives of integrating planning and transport at the national, regional, strategic and local level and promoting more sustainable transport choices both for carrying people and for moving freight and emphasises that, by shaping the pattern of development and influencing the location, scale, density, design and mix of land uses, planning can help to reduce the need to travel, reduce the length of journeys and make it safer and easier for people to access jobs, shopping, leisure facilities and services by public transport, walking and cycling.

5.2.5 An update to PPG13 was released in 2011, which removed the need for local authorities to set maximum car parking standards for residential developments – this is also taken through by the draft NPPF. Instead cap parking standards will be set at a local level.

5.2.6 The **Draft National Planning Policy Framework** (NPPF) is expected to supersede PPSs and PPGs. The current draft implies that transport reasons alone are not enough to refuse development, unless the impacts are highly significant on the network. Transport related principles include that planning policies and decisions should *“promote mixed use developments that create more vibrant places [and] actively manage patterns of growth to make the fullest use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable”*.

5.2.7 The County Council adopted **Local Transport Plan 3** (LTP3) in April 2011. LTP3 has a number of objectives, which need to be taken into account when reviewing transport policy. These seek to:

- 1) reduce the length of commute and the dependence on the private car;

- 2) manage demand for road space and increase the efficiency of the existing network;
- 3) encourage a shift to sustainable modes of travel;
- 4) ensure transport infrastructure is resilient to climate change; and
- 5) minimise the environmental impact of transport.

### 5.3 What's the baseline situation?

- 5.3.1 Cambridgeshire's transport infrastructure includes the strategic road network (the M11, A14 and A1) and the rail links to London and the North of England. More locally Cambridge is surrounded by a ring of market towns that have strong links into the City via a series of radial routes such as the A10, A1303 and the A1307.
- 5.3.2 The economic success of Cambridge, combined with restrictions to housing development, has led to an imbalance between jobs and housing. The average house price is nine times the average salary and as a result many people who work in the city cannot afford to live there<sup>53</sup>. As a result large numbers of the employed population have to travel long distances from home to work, promoting unsustainable travel patterns and placing increased pressure on the City's transport infrastructure.

#### Road network

- 5.3.3 The Local Plan (2006) recognises that *"the current infrastructure has little spare capacity and is seriously strained in many areas"*. This has resulted in high levels of congestion in and around Cambridge. This is due to the fact that Cambridge's labour market extends to, and beyond, the surrounding market towns. Modal share of car is high, and this results in delays in key corridors in and into the City, which are expected to increase significantly in the future as a result of growth.
- 5.3.4 A 2008 Place Survey,<sup>54</sup> found that of a sample of Cambridge residents, 50% identified traffic congestion as the issue that needed most improvement.
- 5.3.5 The withdrawal of the A14 improvement scheme from the national road programme means that the route will continue to have marked and potentially worsening impacts on the local transport network. The withdrawal was due to the high capital costs of the project. Despite the withdrawal the Government has committed to increase capacity and improve performance on the A14, which will support proposed housing developments in Northstowe, Waterbeach and Alconbury. The Government will explore innovative ways of financing this work, including tolls, which will also be investigated for other new capacity proposals. By spring 2012, the Government will have developed proposals with local partners for improvements to the A14 road and the other local transport networks.
- 5.3.6 An additional high profile proposal to reduce congestion and transport related emissions in Cambridge was the consideration of the potential to introduce congestion charging. The Transportation Innovation Fund (TIF) study found that this was the most effective way of reducing demand and congestion. However, the TIF bid was unsuccessful after Government removed the funding.

<sup>53</sup> 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](http://www.cambridgeshire.gov.uk/NR/rdoonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=LTP3PoliciesandStrategy.pdf)

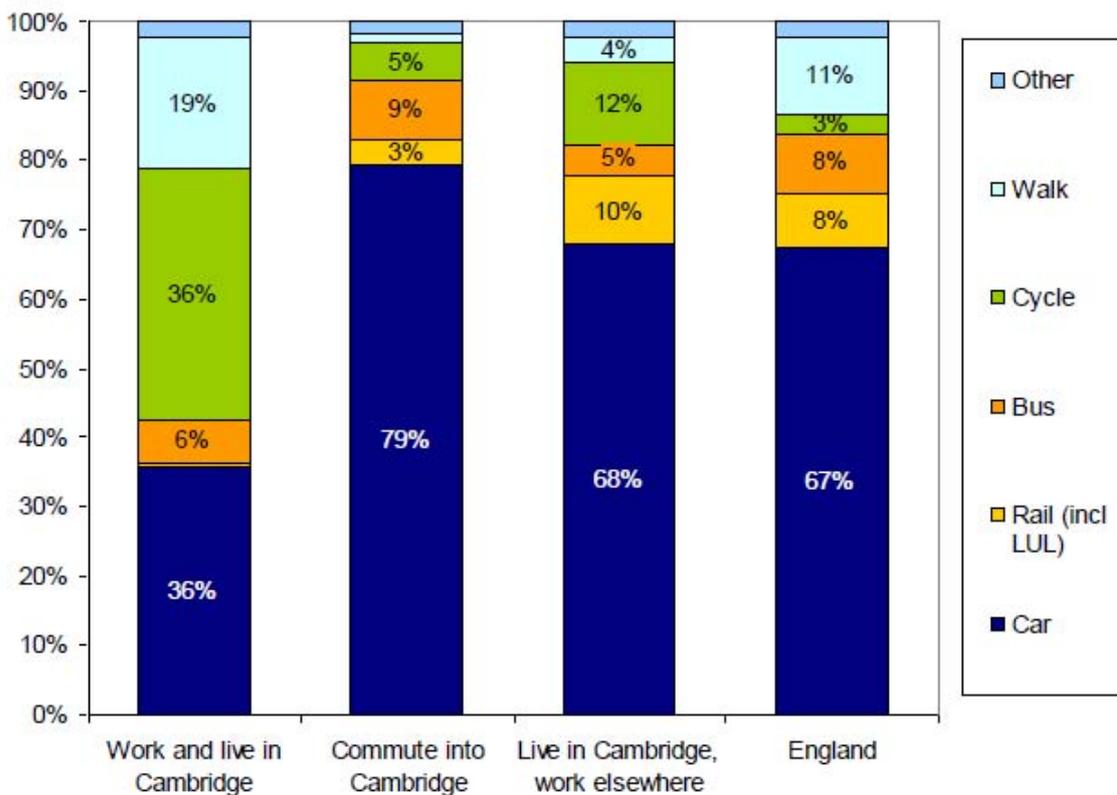
<sup>54</sup> CELLO mruk research (2009) Place Survey – Cambridge City Council - Report of Findings [online] available at: <http://www.cambridge.gov.uk/public/docs/Place%20Survey%202008.pdf>

5.3.7 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 therefore leads to a significant loss of economic potential in Cambridge.

**Cycling and walking**

5.3.8 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.<sup>55</sup>

**Figure 5-1: Journey to work – mode shares<sup>56</sup>**



5.3.9 Cambridge was awarded a National Cycling Town status in 2008 and received £7.2 million to improve cycling infrastructure in and around Cambridge up until 2011. Cambridge City Council operates a number of schemes to encourage cycling within and into the City. These include the ‘cycle parking and pushchairs’ scheme, the ‘cycle training scheme’ and ‘safer routes to school’ scheme.

5.3.10 The ‘Cycle Parking Guide for New Residential Developments’ is a material consideration in planning decisions and sets out best practice with regard to layouts, design, spacing and security for use by development control officers, urban designers and developers.

<sup>55</sup> Source: Steer Davies Gleave – Access to and around Greater Cambridge

<sup>56</sup> Source: Steer Davies Gleave – Access to and around Greater Cambridge

5.3.11 Despite the high proportion of cycling within Cambridge, a much lower number of trips are made into and out of Cambridge by bike. Only 2% of trips over one mile are made by bike.<sup>57</sup>

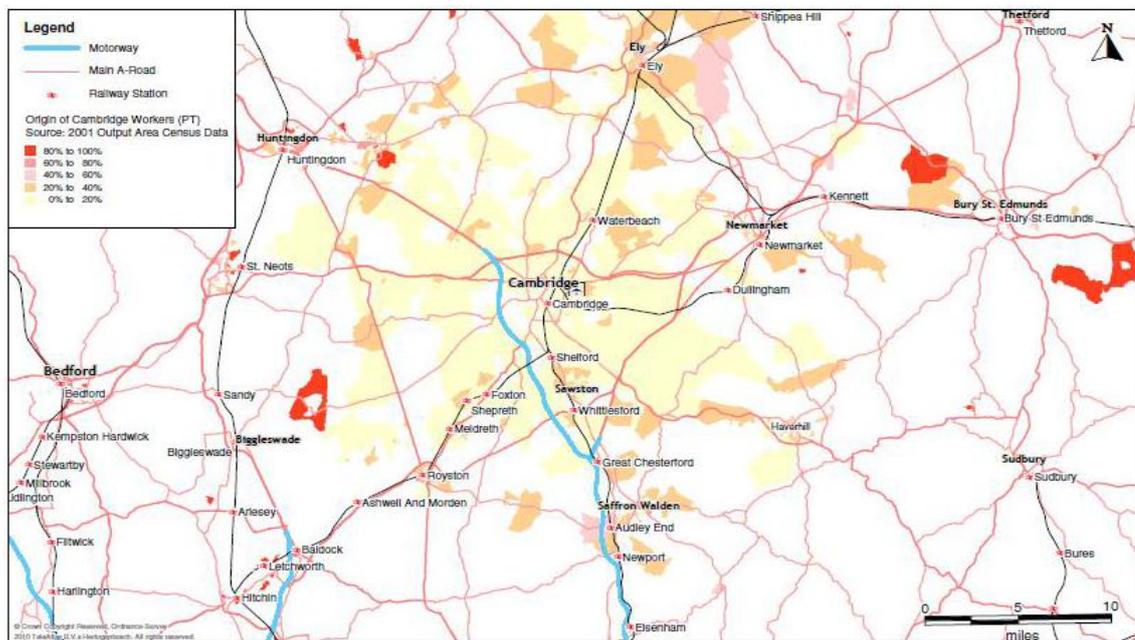
**Public Transport**

5.3.12 Public transport capacity within Cambridge City Centre is relatively limited<sup>58</sup> and the majority of journeys to work in Cambridge are made by car (Figure 5-1). This is particularly the case from areas such as the Haverhill corridors and the Newmarket corridors. There are fewer trips made by car in locations with good access to rail services, such as Ely, Audley End and Royston. The majority of trips made by bus are from locations closer to Cambridge, typically within the area bounded by the A14 and M11. Furthermore, trips made by bus are more common from the north of the city (i.e. King’s Hedges, Orchard Park, Milton, Girton, Histon and Impington) where the City bus network offers good coverage. In comparison the use and provision of public transport in South Cambridgeshire is relatively low.

5.3.13 Improvements to public transport provision have been made, particularly with the opening of the rapid transit guided bus way between Cambridge and St Ives – linking to Huntingdon. The operators of the guided bus way are considering a direct service to Huntingdon and an extension onto Peterborough. However, given the reduction in the budget available for integrated transport and maintenance Cambridge has limited ability to implement further public transport improvements or large scale transport projects.<sup>59</sup>

5.3.14 The Chesterton Interchange is a proposed new railway station on the site of the former Chesterton permanent way depot to the north of Cambridge. It is close to the Cambridge Science Park, St. John’s Innovation Centre and Cambridge Business Parks and the A14 trunk road.

**Figure 5-2: Origin of workers using public transport to commute to Cambridge<sup>60</sup>**



<sup>57</sup> Source: <http://www.cambridgeshire.gov.uk/transport/around/cycling/Cyclepolicyand+strategy.htm> (accessed January 2012)

<sup>58</sup> Cambridgeshire County Council (2011) Annual demographic and socio-economic report [online] available at: <http://www.cambridgeshire.gov.uk/NR/rdoonlyres/3B0B3A7B-E448-4D61-A853-0B5A1A467969/0/CambridgeCityDistrictReport2011.pdf>

<sup>59</sup> 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.p](http://www.cambridgeshire.gov.uk/NR/rdoonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=LTP3PoliciesandStrategy.pdf) (accessed January 2012)

<sup>60</sup> Source: Steer Davies Gleave – Access to and around Greater Cambridge

- 5.3.15 The rural nature of Cambridgeshire, from which many of the workers in Cambridge commute, means that it is often not viable for commercial bus operators to run traditional services and even when they do, frequencies do not allow people to access the services they need at the times they need. Furthermore, long journey times and poor reliability can often make trips by bus undesirable. As such, outside the rapid bus transit system, the limited areas with good rail connections and the areas in north of the City which are served by the Citi bus, the use of the private car is the preferred mode of transport for many.
- 5.3.16 The importance of Cambridge as a centre for employment, education and leisure leads to heavy demand for access to the City Centre which, with its narrow streets, leads to congestion. Efforts to reduce congestion in the City centre include the provision of Park and Ride schemes and the use of physical barriers such as bollards. These initiatives have been credited with the fact that the number of cars entering the city centre has remained relatively constant over recent years despite growing demand for access to the city centre.<sup>61</sup> The streets around the restricted central area, however, remain very congested.
- 5.3.17 The use of rail as a mode of transport for individuals commuting into Cambridge was lower than for other comparable cities.<sup>62</sup> It is likely that this is due to the fact that the railway service is focussed on connecting Cambridge to larger urban centres, such as London, rather than on local communities.

#### 5.4 What would the situation be without the Plan?

- 5.4.1 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.
- 5.4.2 The Local Plan (2006) provides a number of policies to mitigate these impacts. These policies include a preference for new developments in central locations with good access to public transport and with appropriate cycle and pedestrian facilities. The Local Plan (2006) also states that developments will only be permitted where they do not have an unacceptable transport impact. Together with the Council's AAPs it seeks to minimise the impact of development on an already overstretched transport network through limiting dispersed development, and providing homes close to urban centres, which already have good public transport provision.
- 5.4.3 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. Without the Plan it is likely that opportunities to further promote sustainable travel behaviours through provision of adequate cycle facilities, travel plans and adequate public transport will not be maximised. In particular, in the absence of the Plan the car parking and cycle parking standards will remain at the same levels. Car parking standards are now out of date as they were based on maximum levels as set out by PPG13. Cycle parking standards will also need to be reviewed and be brought up to date. In both cases the levels of parking will need to be set based on local evidence.

#### 5.5 What are the key issues and opportunities?

- 5.5.1 There is a need to:
- build on the high modal share of cycling in the city centre and encourage cycling for journeys over one mile

<sup>61</sup> Cambridgeshire County Council (2011) Cambridgeshire Local transport Plan 2011- 2026 [online] available at: [http://www.cambridgeshire.gov.uk/NR/rdonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi\\_scan\\_E956BCBE8ADBC89F=0&bcsi\\_scan\\_filename=LTP3PoliciesandStrategy.pdf](http://www.cambridgeshire.gov.uk/NR/rdonlyres/81A57E02-48D8-4C24-862F-B42A900F70D8/0/LTP3PoliciesandStrategy.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=LTP3PoliciesandStrategy.pdf) (accessed January 2012)

<sup>62</sup> *ibid*

- 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

**5.6 Are there any data gaps?**

- No data gaps have been identified

## 6 WATER

### 6.1 Introduction

- 6.1.1 Water quality is assessed by the percentage of river length that has good chemical and ecological status. Ecological status, in turn, is defined as a combination of physico-chemical elements (e.g. nutrients, pH and dissolved oxygen), biological elements (e.g. fish and algae), specific pollutants and hydromorphology (e.g. depth, width and flow).
- 6.1.2 Poor water quality is typically due to a combination of agricultural runoff, untreated drainage from built-up areas and roads, and discharge from wastewater treatment works. It can affect people's health, and that of plants and animals.
- 6.1.3 The pressures on our water resources are growing. More houses are being built, our population is increasing and we are all using more water. Climate change will only add to these pressures. In England and Wales, roughly 48% of the water abstracted is for household use, 22% for non-domestic use, and 22% is lost due to leakage.<sup>63</sup>

### 6.2 What's the policy context?

- 6.2.1 The **Water Framework Directive** (2000) commits member states to achieve good qualitative and quantitative status of all water bodies by 2027. To achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'. The Directive requires the production of a number of key documents over six year planning cycles. Most important among these are the River Basin Management Plans, to be published in 2009, 2015 and 2021.
- 6.2.2 The **Draft National Planning Policy Framework** identifies flood risk and coastal change, climate change mitigation and the environment as strategic priorities. However, the draft NPPF does not state how the planning system should protect and enhance water quality and water resources. As such there is a risk that in its current form the Draft NPPF would permit development, which was detrimental to the water environment.<sup>64</sup>
- 6.2.3 The **Anglian River Basin Management Plan** 2009 presents the pressures facing the water environment in the Anglian River Basin District, and the actions that will address them.
- 6.2.4 **Water Cycle Strategies (WCS) 2008 and 2011 (Phase 1)**. These strategies examine water supply capacity, wastewater infrastructure, surface water drainage and flood risk management. They are undertaken to ensure that new development can be supplied with water services infrastructure in a sustainable way. The Phase 1 WCS for the Major Growth Sites in and around Cambridge identified no insurmountable technical constraints to the proposed level of growth for the study area.
- 6.2.5 **The Phase 2 WCS** provides evidence in support of a more aspirational vision for water management. It aspires to water neutrality<sup>65</sup> and aims to improve biodiversity through protecting water quality and sustainable surface water management.

<sup>63</sup> Environment Agency (2007) Water supply in England and Wales 2000 to 2007 [online] available at: [http://publications.environment-agency.gov.uk/pdf/GEHO0907BMXP-e-e.pdf?lang=\\_e](http://publications.environment-agency.gov.uk/pdf/GEHO0907BMXP-e-e.pdf?lang=_e) (accessed January 2012)

<sup>64</sup> Environment Agency Response to Department for Communities and Local Government Consultation – Draft national Planning policy Framework [online] available at: [http://www.environment-agency.gov.uk/static/documents/Business/2359\\_NPPF\\_response\\_for\\_web.pdf](http://www.environment-agency.gov.uk/static/documents/Business/2359_NPPF_response_for_web.pdf) (accessed January 2012)

<sup>65</sup> Water neutrality is the concept that the total water used after a new development is no more than the total water used before the development in a given wider area

6.2.6 The **Cambridge Water Company Final Water Resources Management Plan (2010)** and the **Cambridge Water Company Statutory Drought Plan (2007)** set out how the Company will manage its resources to meet the needs of existing and future customers, and those of the environment, over the next 25 years.

**6.3 What’s the baseline situation?**

6.3.1 The Anglian River Basin District which supplies Cambridge contains a diverse environment that ranges from the lowlands of the Fens to the East Anglian coastal estuaries and marshes. Water is essential to the maintenance of the rivers, lakes, estuaries, coasts and groundwater that underpins these landscapes and their wildlife. It is also vital to the livelihoods of those who live and work in the district.

**Water quality**

6.3.2 Nearly 70 per cent of **surface water** bodies in the Anglian river basin district are designated as ‘artificial’ or ‘heavily modified’. This is because they have been created or modified for a particular use such as water supply, flood protection, navigation or urban infrastructure. The five surface waters included in the existing Local Plan (2006) (see

6.3.3 Table 6-1) are all classified as heavily modified.<sup>66</sup> As such they are only able to achieve good ecological ‘potential’ as they do not represent a ‘natural environment’.

**Table 6-1: Ecological and chemical status of the surface water bodies in Cambridge<sup>67</sup>**

	Overall Status	Ecological Status	Chemical Status	Target
TheCam (upstream)	Poor	Poor	Good	Good by 2027
The Cam (downstream)	Moderate	Moderate	Good	Good by 2027
Bin Brook	Moderate	Moderate	N/A	Good by 2027
Hobson’s Brook	Moderate	Moderate	N/A	Good by 2027
Cherry Hinton Brook	Moderate	Moderate	N/A	Good by 2027

6.3.4 The reasons for not currently achieving good status in these surface waters are due to

- 1) Heavily modified channels;
- 2) high phosphate levels;
- 3) Lack of diversity and quality of fish and invertebrates; and
- 4) Increased diffuse pollution from surface water runoff.

6.3.5 As a public body Cambridge City Council is committed to having due regard to the Water Framework Directive and the Anglian River Basin Management Plan. Under these regulations, the status of the surface waters and groundwater in Cambridge, as is the case for all surface water and groundwater in the UK, is required to be good by 2027.<sup>68</sup>

<sup>66</sup> By definition, artificial and heavily modified water bodies are not able to achieve ‘natural conditions’. Often the modification to the water body means that the biology is impacted and biodiversity within the water body is reduced.

<sup>67</sup> Source: CCC Water resources, management and quality topic paper

<sup>68</sup> From information provided by Cambridge City Council

6.3.6 For **groundwater**, good status is assessed both by the levels and types of chemicals and by the volume of water contained within groundwater. The Cam and Ely Ouse Chalk is the only groundwater site within the existing Local Plan (2006) area. Its current overall quantitative and chemical status is assessed to be poor. In particular the site was assessed to have a poor impact on wetlands and surface waters and has been categorised at having a poor water balance. Nitrates, pesticides and chlorinated solvents were all found when ground water from the site was tested for chemicals.

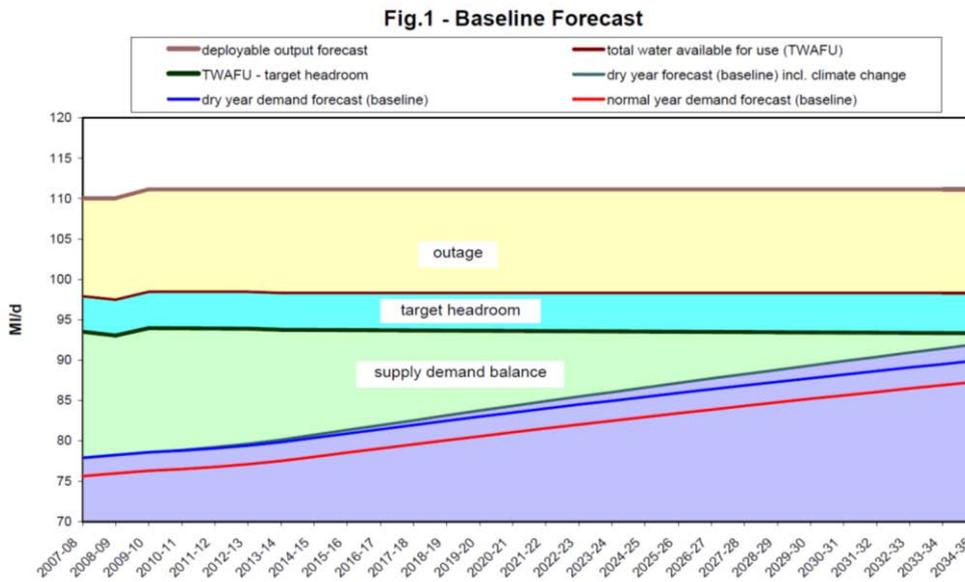
**Water resources**

6.3.7 Cambridgeshire, along with the majority of the south east and east of England, is categorised as an area of severe water stress.

6.3.8 97% of Cambridge Water Company’s supply output is abstracted from boreholes in the chalk aquifer to the south and east of Cambridge. Winter rainfall is relied on to recharge the aquifer and restore borehole levels that have been depleted during the preceding summer months.

**Under the baseline forecast Cambridge Water Company expects to maintain the target headroom<sup>69</sup> throughout the planning period. However beyond 2035, given the current levels of infrastructure, water demand will exceed available supply. The projected supply-demand balance, under the baseline scenario, over the period is overleaf (see Figure 6-1).**

**Figure 6-1: Availability of water resources in Cambridge<sup>70</sup>**



<sup>69</sup> Target headroom is defined as the minimum buffer that a prudent water company should allow between supply (including raw-water imports and excluding raw-water exports) and demand to cater for specified uncertainties (except those due to outages) in the overall supply-demand resource balance.

<sup>70</sup> Cambridge Water Company Final Water Resources Management Plan 2010

- 6.3.9 Over 70% of the water currently supplied by Cambridge Water is on a measured basis, and the benefits of this level of metering in curbing peak demand have been evident over recent years. Cambridge Water states that given the current supply-demand balance, there is no justification or benefit to be gained in the short-term from making significant investment in capital schemes designed to alter that balance.<sup>71</sup> However, 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.

### **Wastewater**

- 6.3.10 Cambridgeshire has four waste water treatment works (WwTW) – Utton’s Drove, Cambridge (Milton), Haslingfield and Sawston. Anglian Water’s preferred strategy is for all development in and around Cambridge to drain to Cambridge (Milton) WwTW, and for development at Northstowe and Cambourne to drain to Utton’s Drove WwTW. In order to achieve this there will be a requirement for upgrades to the Cambridge WwTW system. However, it is not expected that wastewater treatment will be a constraint to growth in Cambridge.<sup>72</sup>

## **6.4 What would the situation be without the Plan?**

- 6.4.1 The WCS 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. The Local Plan (2006) states that “Planning permission will not be granted where there is an inadequate water supply, sewerage or land drainage system available to meet the demands of development”. However, there is no provision within the Local Plan (2006) to increase water efficiency within buildings. It is therefore 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 WFD.
- 6.4.2 The Local Plan (2006) does not take into account the impact of climate change on water resources. There is therefore a risk that without the Plan the potential impacts of climate change on water scarcity will not be adequately accounted for when assessing development proposals.
- 6.4.3 In terms of water quality, it is likely that without the Plan developments will continue to impact on surface water quality. This is because without the Plan full use will not be made of sustainable drainage systems (SuDS) (considered in Chapter 7) to reduce surface water run-off and surface water pollution. It can also be assumed that without the Plan, water sensitive design, which seeks to mitigate and even enhance the impact of development on water resources, will not be pursued.

## **6.5 What are the key issues and opportunities?**

- 6.5.1 There is a need to:
- 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

<sup>71</sup> Cambridge Water Company (2010) Final Water Resources Management Plan [online] available at: <http://www.cambridge-water.co.uk/customers/water-resources-management-plan> (accessed January 2012)

<sup>72</sup> Halcrow Group Limited (2008) Water cycle Strategies – major growth areas in and around Cambridge Phase I outline strategy [online] available at: [http://www.cambridgeshirehorizons.co.uk/documents/environment/Cambridge\\_area\\_wcs\\_phase1.pdf?bcsi\\_scan\\_AB11CAA0E2721250\\_0&bcsi\\_scan\\_filename=Cambridge\\_area\\_wcs\\_phase1.pdf](http://www.cambridgeshirehorizons.co.uk/documents/environment/Cambridge_area_wcs_phase1.pdf?bcsi_scan_AB11CAA0E2721250_0&bcsi_scan_filename=Cambridge_area_wcs_phase1.pdf)

**6.6 Are there any data gaps?**

- No data gaps have been identified

## 7 FLOOD RISK INCLUDING CLIMATE CHANGE ADAPTATION

### 7.1 Introduction

- 7.1.1 Flooding is a natural process that plays an important role in shaping the natural environment. However, flooding threatens life and damages property and infrastructure. Flooding can be both from rivers (fluvial) and surface water (pluvial). The effects of weather events can be increased in severity both as a consequence of previous decisions about the location, design and nature of new developments and as a consequence of our changing climate. In relation to flood risk the 2009 UK Climate Change Projections<sup>73</sup> highlight that although there is likely to be little change in the amount of precipitation (rain, hail, snow etc) that falls annually, it is likely that the pattern of rainfall will change with wetter winters and drier summers. As a consequence flooding from all sources is expected to increase
- 7.1.2 Government guidance on flood risk emphasises that although flooding cannot be wholly prevented, its impacts can be avoided and reduced through good planning and management. As a consequence of climate change, the Pitt Review<sup>74</sup> into the 2007 floods emphasised that flood risk is here to stay.

### 7.2 What's the policy context?

- 7.2.1 **Planning Policy Statement 25** (PPS25) requires that new development should not increase flood risk, and requires developers to design, build and fund the maintenance of SuDS; a Surface Water Management Plan (SWMP) will support this by informing the Local Planning Authority of areas at risk of surface water flooding and by providing an evidence base to aid the consideration of future development options.
- 7.2.2 The **Draft National Planning Policy Framework** addresses flood risk by requiring developers to “avoid inappropriate development in areas at risk of flooding by directing development away from areas at highest risk or where development is necessary, making it safe without increasing flood risk elsewhere”.
- 7.2.3 **Cambridgeshire Strategic Surface Water Management Plan** (SWMP) (2011). The production of SWMPs was recommended by the Pitt Review following the widespread flooding across England in 2007. The risk of surface water flooding to 4,350 settlements in England was assessed. Cambridge and Milton was found to be in the top 2% of settlements at risk. Concurrent with the Cambridge and Milton SWMP, a wider SWMP has also been undertaken which identifies the ‘top ten’ areas in Cambridgeshire at risk of surface water flooding.
- 7.2.4 The **Flood and Water Management Act** (2010) implemented many of the recommendations from the Pitt Review. It makes the Environment Agency responsible for developing and applying a flood risk management strategy for England and Wales. Local Authorities are required to develop, maintain, apply and monitor a strategy for local flood risk management in their areas. This must cover the risk posed by surface water, watercourse and groundwater flooding.
- 7.2.5 **Great Ouse Catchment Flood Management Plan** (CFMP) (2010) is a strategic broad scale approach to flood risk management on a catchment basis for the next 50-100 years. The CFMP expects flood risk to increase in the future with climate change, urbanisation and land use change. The CFMP recommends that within the Cambridge policy unit further action to is needed to reduce the risk of flooding now and in the future.

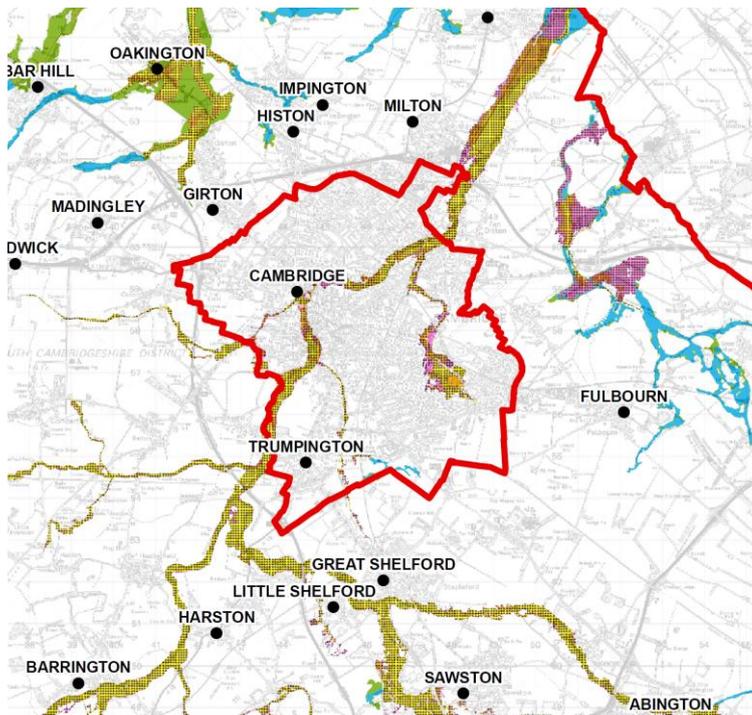
<sup>73</sup> Defra (2009) UK Climate Projections, <http://ukcp09.defra.gov.uk/> (accessed January 2012).

<sup>74</sup> Source: [http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final\\_report.html](http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html) (accessed January 2012)

7.2.6 The **Green Infrastructure Strategy 2011** identifies land and water management as a key delivery mechanism for green infrastructure. Opportunities are identified for green infrastructure to help reduce flood risk, by restoring natural flood plains and using sustainable drainage in new developments.

**7.3 What’s the baseline situation?**

**Figure 7-1: Fluvial Flood risk in Cambridge<sup>75</sup>**



**KEY**

South Cambridgeshire DC & Cambridge City Council Boundaries

**Hydraulically Modelled Flood Risk Return Periods**

- Flood Zone 3b**  
1 in 20 Year Flood Outline (including defences)
- Flood Zone 3a**  
1 in 100 Year Flood Outline (including defences)
- Flood Zone 3a**  
1 in 100 Year Flood Outline (undefended)
- Flood Zone 3a + Climate Change**  
1 in 100 Year +CC Flood Outline (including defences)
- Flood Zone 3a + Climate Change**  
1 in 100 Year +CC Flood Outline (undefended)
- Flood Zone 2**  
1 in 1000 Year Flood Outline (including defences)
- Flood Zone 2**  
1 in 1000 Year Flood Outline (undefended)

**EA Flood Zone Mapping**

- EA Flood Zone 3
- EA Flood Zone 2
- EA Flood Zone 1

**Notes**

1. Where detailed hydraulic modelling is unavailable for Flood Zones 2 and 3, the E.A.'s flood outlines as shown on their website have been provided.
2. In the absence of hydraulic modelling showing 1 in 100 year climate change extents, the E.A.'s Flood Zone 2 should be taken as the 1 in 100 year climate change outline.
3. Please refer to section 4.10 of the SFRA for further details of the modelled flood outlines.

<sup>75</sup> Source: Strategic Flood Risk Assessment – Appendix D.

### Fluvial Flood Risk

- 7.3.1 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. These rivers and brooks have flooded in recent history. Cambridge has a history of fluvial flooding with recording incidents in 1947, 1958, 1978 and 2001.
- 7.3.2 The SFRA evaluates the current (2010) and future flood risk situations over a 105 year timeframe (2115), incorporating the impacts of climate change in line with PPS25. 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. Since all land around Cambridge drains into the Cam, development which increases surface water run-off will increase the risk posed by fluvial flooding to Cambridge.
- 7.3.3 Current fluvial flood risk in Cambridge has been estimated. The number of people at risk from a 1 in 10 year flood is 173, a 1 in a 100 year flood is 986 and for a 1 in a 1000 year flood is 1,744. This equates to economic damages of approximately £1.5m, £9m and £20m respectively. Future fluvial flood risk has also been estimated. The number of people at risk from a 1 in 10 year flood is 684, a 1 in a 100 year flood is 1,438 and for a 1 in a 1000<sup>76</sup> year flood is 2,544 equating to economic damages of £6.2m, £14.2m and £26.3m respectively.
- 7.3.4 The conclusion of the Great Ouse Catchment Flood Management Plan is "*Take further action to reduce flood risk (now and / or in the future)*" which is a recognition that more needs to be done now, to ensure that flood risk in the future is either the same or reduced.
- 7.3.5 The key messages for current fluvial flood risk are:
- Cambridge has significant flood risk associated with its rivers and watercourses;
  - Cambridge rivers and watercourses cannot accept uncontrolled discharge, without increasing the existing flood risk;
  - The risk of flooding should be considered at all planning stages;
  - Development should be steered to the lowest risk areas (The Sequential Test);
  - An assessment of risk should also be undertaken to ensure development does not increase flood risk elsewhere; and
  - Previously developed sites should achieve a reduction in surface water discharge of a minimum 20%.
- 7.3.6 Current flood risk management activities in Cambridge include grass cutting, weed control and a flood warning service.

### Pluvial Flood Risk (Surface Water)

- 7.3.7 Surface water flooding usually occurs when the drainage system of the local area is overwhelmed after intense rainfall events. It is difficult to predict precisely where surface water flooding will occur as it is dependant on ground levels, rainfall, and the local drainage network.
- 7.3.8 The Strategic Surface Water Management Plan (SWMP) put Cambridge and Milton<sup>77</sup> in the top 2% of settlements at risk of surface water flooding in England.

<sup>76</sup> A 1 in 1000 year flood would lead to widespread flooding with community-scale disruption for a long period. This may include disruption to community services such as health care and emergency services. Also, high depths and velocities which could cause hazard to life.

<sup>77</sup> Source: Environment Agency's National Receptor Database

- 7.3.9 There are 53,518 domestic properties in Cambridge and Milton of which 11,061 properties are deemed to be at risk of surface water flooding.
- 7.3.10 Eleven ‘wetspots’<sup>78</sup> within the Cambridge and Milton settlement were identified based on the risk posed by surface water flooding to a wide range of receptors and the historical incidence of flooding. These were:
- King’s Hedges and Arbury
  - Cherry Hinton (North and South)
  - North Chesterton
  - Bin Brook
  - South Chesterton
  - Milton
  - Castle School area
  - Cambridge Historic City Centre
  - Cherry Hinton Village
  - Vicar’s Brook
  - Coldham’s Common
- 7.3.11 The potential economic damages associated with surface water flooding at King’s Hedges and Arbury and Cherry Hinton were modelled. The economic damage (present value damages) for Cherry Hinton was predicted to be £44m and for King’s Hedges and Arbury £19m. While modelling was only undertaken for these two areas, surface water flooding poses a significant risk to the majority of Cambridge City.

#### **Sustainable Urban Drainage Systems<sup>79</sup>**

- 7.3.12 The Flood and Water Management Act requires all developers to include sustainable drainage, where practicable. This applies to new developments and re-developments (subject to exemptions), in an effort to reduce flooding and improve water quality. The automatic right to connect to public sewers will also be conditional on meeting the new standards.
- 7.3.13 The Water Cycle Strategy (WCS) notes that progress is being made with many of the strategic development sites providing balancing ponds and swales to manage surface water and improve biodiversity. For example, the development at NIAB1 in the northwest of Cambridge incorporates 100% above ground drainage through a network of ‘green finger’ swales and balancing ponds.
- 7.3.14 The vision set out in the WCS is for 100% above ground drainage for all future developments where feasible. This should include environmental enhancement and provide amenity, social and recreational value. It is recognised in the WCS that this ambition will be difficult particularly for planned high density developments or on constrained windfall development sites within Cambridge.

<sup>78</sup> Areas deemed to be particularly at risk of surface water flooding

<sup>79</sup> Sustainable Urban Drainage Systems (SuDS) are the preferred approach to managing rainfall runoff generated from impermeable surfacing. They can be used to reduce the rate and volume of surface water discharges from sites to the receiving environment (i.e. natural watercourses or public sewer etc), as well as reduce pollutants, maintain recharge to groundwater and provide a natural amenity and green space within a development. SuDS also provide an effective means to deal with the effects of climate change.

**7.4 What would the situation be without the Plan?**

- 7.4.1 Fluvial and pluvial flooding pose a significant threat throughout Cambridge with development adjacent to watercourses and drains identified as particularly vulnerable.
- 7.4.2 The Local Plan (2006) contained a policy on development and flooding but this was not 'saved' as it repeated national guidance in PPS25. It is anticipated that National policy will be less detailed when PPS25 is replaced by the NPPF, and there will be a need for more detailed flooding (both fluvial and pluvial) and SuDS policies in the Plan.
- 7.4.3 The publication of a number of key documents since the Local Plan (2006) was released including the Cambridgeshire Strategic Surface Water Management Plan, the Strategic Flood Risk Assessment, the Great Ouse Catchment Flood Management Plan and the Green Infrastructure Strategy. Without the Plan, the significant risk posed by pluvial and fluvial flooding, which is outlined in these documents may not be fully addressed.
- 7.4.4 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. It is also predicted that there will be an increase in 'extreme weather events' including storms that may bring an increase in flash flooding.
- 7.4.5 Without the Plan, it is likely that development will continue to be preferred in areas of low flood risk and that the use of SuDS will be recommended. However, given the increased risk of flood risk posed by climate change and the increased levels of development, which is likely to increase surface water run-off, it is likely that without the Plan both fluvial and pluvial flood risk will increase.
- 7.4.6 In light of future climate change it will be important for Cambridge City Council to introduce specific policies to ensure both current and future communities are capable of adapting to its likely impacts.

**7.5 What are the key issues and opportunities?**

- 7.5.1 There is a need to:
- 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

**7.6 Are there any data gaps?**

- There is limited information on the standard and condition of existing flood defences including their resilience to climate change

## 8 CLIMATE CHANGE MITIGATION AND RENEWABLE ENERGY

### 8.1 Introduction

8.1.1 Climate change is recognised as one of the greatest challenges facing humanity. Increases in temperature and changes to seasonal rainfall averages will result in a range of direct and indirect effects resulting in permanent changes in the natural environment and increasingly, substantial challenges to national prosperity and social cohesion at the local level. The Government's principal concern for sustainable development has now filtered down to local authorities which requires them to include policies on climate change mitigation in their plans.

### 8.2 What's the policy context?

8.2.1 The **UN Climate Conference in Copenhagen** in December 2009 brought together leaders from 186 countries. It recognised the scientific view that the increase in global temperature should be held below 2.0°C and that deep cuts in global emissions are required.

8.2.2 The **Energy Act** (2010) implements some of the measures in the UK Low Carbon Transition Plan including the preparation of regular reports on the decarbonisation of electricity generation. It introduced a mandatory social price support to tackle fuel poverty and several measures to ensure fairness of energy markets.

8.2.3 The **Renewable Energy Directive** (2009) sets the UK a legally binding target to produce 15% of its energy needs from renewable sources by 2020.

8.2.4 The government's UK **Low Carbon Transition Plan** (2009) sets out the UK's first ever comprehensive low carbon transition plan to 2020. It details how targets for UK greenhouse gas reductions will be achieved. Around half the emissions reductions are expected to come from the power and heavy industry sectors with more modest contributions (about one third in total) being made by transport, homes and communities.

8.2.5 The **UK Climate Change Act** 2008 commits the government to reduce greenhouse gas emissions by 34% in 2020 and at least 80% by 2050. In 2008 Cambridge City Council adopted its Climate Change Strategy and Action Plan which sets the City a target to reduce carbon dioxide emissions by 89% by 2050.

8.2.6 Section 182 of **Planning Act** 2008 introduced a duty on Local Development Frameworks to include policies that make a contribution to climate change mitigation. This sets a clear legal framework for the role of planning and local policy in responding to climate change.

8.2.7 **PPS 1** supplement on Planning and Climate Change requires local authorities to mitigate and adapt to climate change through appropriate location and patterns of development, promoting the reduction of the use of the car, conserving and enhancing biodiversity and ensuring that new development is resilient to the effects of climate change.

8.2.8 **PPS3:** Housing underpins the delivery of the Government's strategic housing policy objectives and the contribution to be made to cutting carbon emissions from focusing new development in locations with good public transport accessibility and/or by means other than the private car and where it can readily and viably draw its energy supply from decentralised energy supply systems based on renewable and low-carbon forms of energy supply, or where there is clear potential for this to be realised.

8.2.9 **PPS22:** Renewable Energy requires local development documents to include policies designed to promote and encourage, rather than restrict, the development of renewable energy sources, subject to appropriate environmental safeguards.

- 8.2.10 The **Draft National Planning Policy Framework** (2011) objective is that the planning system should secure 'radical reductions in greenhouse gas emissions, through the appropriate location and layout of new development, and active support for energy efficiency improvements to existing buildings and the delivery of renewable and low-carbon energy infrastructure'. Also, to support the move to a low carbon economy it identifies that local planning authorities should plan for new development in order to reduce greenhouse gas emissions. In the pursuit if these reductions they 'should recognise the responsibility on all communities to contribute energy generation from renewable or low carbon sources' and 'support community-led initiatives for renewable and low carbon energy', including those 'taken forward through neighbourhood planning'.
- 8.2.11 The **Cambridge Climate Change Strategy and Action Plan** 2008 - 2012 establishes the framework for action in Cambridge to tackle the causes and consequences of climate change. It describes the present situation, rationale, future intentions and actions for Cambridge City Council to take in order to achieve them. As mentioned previously, this includes the target to reduce carbon dioxide emissions by 89% by 2050 in Cambridge.
- 8.2.12 The **Local Plan** (2006) contains the following policies, which relate to climate change:
- Policy 3/1 requires the submission of a Sustainability Statement and Checklist which covers climate change mitigation measures;
  - Policy 8/1 aims to encourage applicants for non-residential proposals to demonstrate that the proposed location is the most suitable with regard to access by public transport, cycling and walking;
  - Policy 8/16 requires developers of major proposals to provide at least 10% of the development's total predicted energy requirements on site, from renewable energy sources;<sup>80</sup> and
  - Under policy 8/17 applications for renewable energy schemes or technologies will be permitted if applicants can demonstrate impacts to the environment are minimised, and where impacts remain are outweighed by the wider environmental, economic or social benefits.
- 8.2.13 The **Sustainable Design and Construction SPD** (2007) provides detailed guidance on sustainability policies in the Local Plan (2006) including on urban design, transport and energy as they relate to climate change mitigation.

### 8.3 What's the baseline situation?

- 8.3.1 The following figures illustrate results from the 2009 UK climate projections<sup>81</sup> for selected key climate variables for Cambridge<sup>82,83</sup>:
- Drier summers, with 7% less summer rainfall by the 2020s and 26% less by the 2080s;
  - Wetter winters, with 7% more winter rainfall by the 2020s and 27% more by the 2080s;
  - More intense rainfall during autumn, winter and spring, with rainfall on the wettest winter days 6% higher by the 2020s and 24% higher by the 2080s;

<sup>80</sup> This criteria relates to major proposals above a threshold of 1,000 m<sup>2</sup> or 10 dwellings.

<sup>81</sup> In June 2009, the UK Climate Impacts Programme published projections of how the UK climate is projected to change during the 21st century. The projections allow an analysis of different climate variables, such as temperature or rainfall, for different parts of the UK.

<sup>82</sup> Based on a 25km grid square containing Cambridge, central estimates of climate projection equating to a 50% probability based on a high emission scenario.

<sup>83</sup> The figures illustrate changes in climate averages for Cambridge relative to the period 1961 to 1990, and the projections are based on a high emissions scenario, implying limited success with cutting global carbon emissions. As there is an approximate 30 year time lag between the emission of greenhouse gasses (GHG) and the response of the climate system, the climate projections will not differ up to 2040 depending on whether a low, medium or high emissions scenario is selected. It is only after 2040 that the amount of carbon emission reduction achieved will come into effect.

- Higher temperatures for all seasons throughout the year, with summer temperatures 1.5 degrees centigrade higher by the 2020s and 4 degrees higher by the 2080s; and
- Higher temperature extremes for all seasons throughout the year, with the warmest summer days 1.5 degrees higher by the 2020s and 4 degrees higher by the 2080s.

8.3.2 In 2008 Cambridge City’s total CO<sub>2</sub> emissions were 782 kilotonnes (kt) equating to per capita emissions of 6.6 tonnes. The total emissions for Cambridge in 2008 represented a 12 kt (or 1.5%) increase on 2007. The majority of emissions (56%) related to Industry and commercial activities in 2008, 30% related to domestic emissions and 14% related to road transport. There were negligible emissions relating to land use, land use change and forestry (Table 8-1).

**Table 8-1: Cambridge’s emissions by sector<sup>84</sup>**

Sector	Emissions (kilotonnes)	Percentage of total emissions
Industry and commercial	436.6	56
Domestic	236.3	30
Road transport	109.0	14
Land use, land use change and forestry	0.2	0
Total	782.1	

8.3.3 Although the Plan may have limited opportunity to influence industry and commercial emissions and, to a lesser extent, emissions associated with road transport it should be able to effectively address domestic emissions (domestic electricity, gas and other fuels). A recent housing condition survey<sup>85</sup> found that of a total stock of 41,500 dwellings, 95% presented opportunities for energy efficiency measures such as loft and wall insulation, double glazing and the installation of new boilers.

8.3.4 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 equates to a carbon footprint of 0.7 tonnes per person by 2050.

**New Development**

8.3.5 Substantial residential development is planned for Cambridge. This is expected to be accompanied by growth in buildings for non-residential use. Achieving the carbon reduction targets in the context of new development and population growth presents a considerable challenge.

<sup>84</sup> Cambridge City Council Annual Demographic and socio-economic report 2011

<sup>85</sup> Housing Condition Survey 2009 www.cambridge.gov.uk (accessed January 2012)

- 8.3.6 Much of the new development is expected to be delivered through large urban extension sites, many of which have renewable energy and carbon reduction targets already defined in their respective Area Action Plans (AAPs). For example, Cambridge East AAP has a requirement for new buildings to reduce CO<sub>2</sub> emissions by a further 10% over Building Regulations and for renewable energy to provide at least 10% of the developments overall energy requirements. The North West Cambridge AAP goes further requiring residential development to meet Code for Sustainable Homes Level 4 or higher and for non residential to be in line with BREEAM “excellent” standards.
- 8.3.7 As part of the evidence base for future climate change policies, the City commissioned consultants to undertake a renewable and low carbon energy study for the City. The Decarbonising Cambridge Study<sup>86</sup> (2010) recommends that the Council adopts the following targets for all residential and non-residential developments.

**Table 8-2: Recommended options for Cambridge City Council for all residential and non-residential developments<sup>87</sup>**

Development type	Standard	Up to 2013	2013-2016	2016 onwards
Residential Development	Carbon compliance level	44%	70%	70%
	Code for Sustainable Homes	Level 4	Level 4	Level 4
Non-domestic development	BREEAM	Very good	Very good	Very good

### Renewable energy

- 8.3.8 Cambridge having an installed renewable energy capacity of 0.4 MW. More widely 7% of Cambridgeshire’s energy demand is already met by renewable energy installations<sup>88</sup> which compares to about 6% Nationally.
- 8.3.9 Decarbonising Cambridge<sup>89</sup> (2010), a renewable and low carbon energy study completed for Cambridge City Council assessed the opportunities for low carbon and renewable energy projects and identified the following potential opportunities:
- **District Heating:** The main opportunity for district heating is likely to be in the urban extension sites of which only the Bell School site is in close proximity to an area of existing high heat density;
  - **Biomass:** Whilst the wider region’s available biomass is large there is very limited resource in Cambridge. Several barriers exist to using biomass as a heating fuel including fuel sourcing, security of fuel supply, transportation costs, impacts on traffic congestion, fuel storage issues, and air quality concerns around biomass combustion;
  - **Waste to energy:** A new Mechanical Biological Treatment facility could produce up to around 500GWh/yr, which is equivalent to around 70% of current domestic gas consumption in Cambridge in energy terms. However, it is highly unlikely that energy from waste

<sup>86</sup> Decarbonising Cambridge 2010 [www.cambridge.gov.uk](http://www.cambridge.gov.uk) [accessed January 2012]

<sup>87</sup> Decarbonising Cambridge 2010 [www.cambridge.gov.uk](http://www.cambridge.gov.uk) [accessed January 2012]

<sup>88</sup> Cambridgeshire Renewables Infrastructure Framework – Baseline Data, Opportunities and Constraints (2012)

<sup>89</sup> Decarbonising Cambridge 2010 [www.cambridge.gov.uk](http://www.cambridge.gov.uk) [accessed January 2012]

generation plants would be located within Cambridge due to their unsuitability for location within existing urban areas;

- **Wind energy:** Cambridge has limited opportunities for wind energy generation. The use of wind power to offset carbon emissions from new development in Cambridge is most likely to be via some form of offset fund; and
- **Other technologies:** There are likely to be opportunities for the deployment of renewable energy technologies individual household scale and on larger developments.

8.3.10 Data from the Cambridgeshire Renewables Infrastructure Framework<sup>90</sup> identified the main renewable energy potential for Cambridge lies in micro renewables such as photovoltaics and heat pumps and district heat networks.

#### 8.4 What would the situation be without the Plan?

8.4.1 The Council has a limited scope of influence to reducing transport emissions, with the majority of emissions coming from the strategic road network; which is managed by Cambridgeshire County Council. The Council is involved with or is responsible for certain aspects such as the support of bus services, off street parking and new development and urban expansion. The Local Plan (2006) includes restrictions on the number of car parking spaces in new developments, minimum cycle storage standards, and the preference for development to be located in City Centre locations and/or close to public transport links.

8.4.2 Without the Plan, it is likely that emissions from the transport sector will continue to increase in Cambridge. Transport is the only source of CO<sub>2</sub> emissions that has continued to rise since 1990 and it is likely to cause a continued challenge in Cambridge due to planned new development.

8.4.3 The Local Plan (2006) states that new buildings should be energy efficient in their construction and running costs but does not identify particular standards. Without the Plan, it is likely that new buildings and major refurbishments in Cambridge will continue to meet Building Regulations requirements, but are unlikely to, on the whole, go beyond these. In contrast new buildings covered by the AAPs are likely to meet stricter energy efficiency targets.

8.4.4 In terms of renewable energy, The Local Plan (2006) states that applications for renewable energy schemes or technologies will be permitted if applicants can demonstrate impacts to the environment are minimised, and where impacts remain are outweighed by the wider environmental, economic or social benefits. Without the Plan this conservative approach to the installation of renewable energy could limit opportunities to significantly increase renewable energy generation in the City.

#### 8.5 What are the key issues and opportunities?

8.5.1 There is a need to:

- 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

#### 8.6 Data Gaps

- No data gaps have been identified

<sup>90</sup> Source: <http://www.cambridge.gov.uk/democracy/mgConvert2PDF.aspx?ID=8643> (accessed January 2012)

## 9 LANDSCAPE, TOWNSCAPE AND CULTURAL HERITAGE

### 9.1 Introduction

9.1.1 Landscape is more than just a visual backdrop; it is an invaluable natural and socio-economic resource, which allows us to better understand our locality and helps us to define our sense of place and who we are. Largely protected by the Green Belt Cambridge sits as a compact City with a strong sense of identity. Internationally famous for the quality of its environment, Cambridge has a wealth of historic assets and cultural heritage which in combination with its particular setting contribute to the City's individual character and sense of place. The River Cam also plays an important role in the overall setting of the city, as well as having wider amenity and recreational value.

### 9.2 What's the policy context?

9.2.1 **PPS 1** – Delivering Sustainable Development – highlights the need to protect and enhance the historic environment and notes the need for a high level of protection to be given to most valued townscapes and landscapes. Those with national and international designations should receive the highest level of protection.

9.2.2 **PPG 2** - Green Belts contains a presumption against any development in the Green Belt that detracts from its purposes which are:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns from merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

9.2.3 **PPS 5** – Planning for the Historic Environment, highlights the need for new development to make a positive contribution to the character and local distinctiveness of the historic environment, to better enhance or better reveal the significance of heritage assets. PPS5 also stresses the importance of protecting and enhancing the setting of heritage assets.

9.2.4 The **Draft National Planning Policy Framework** makes three important statements that relate to the historic environment: "considerable importance and weight should be given to [the heritage assets] conservation"; "any harm or loss should require clear and convincing justification"; and "substantial harm to or loss of.....should be wholly exceptional". In its current iteration English Heritage considers the draft NPPF to offer less protection to historic assets than the previous planning guidance.<sup>91</sup>

9.2.5 The **Local Plan** (2006) includes a number of policies in relation to protecting the natural and built environment, notably:

- Policy 4/1 sets out a presumption against inappropriate development in the Green Belt;
- Policy 4/2 aims to protect open space as an essential part of our natural resource base and its contribution to the setting and character of the City;
- Policy 4/9 and 4/10 which aims to protect the City's Scheduled Ancient Monuments and Archaeological areas and Listed Buildings;

<sup>91</sup> English Heritage (2011) National Planning Policy Framework: written evidence from English heritage [online] available at: <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmcomloc/writev/nppf/m69.htm>

- Policy 4/11 which aims to protect the “setting” of and views into and out of Conservation Areas; and
- Policy 4/12 which affords some protection to Buildings of Local Interest (builds which are important to the locality or the City’s history).

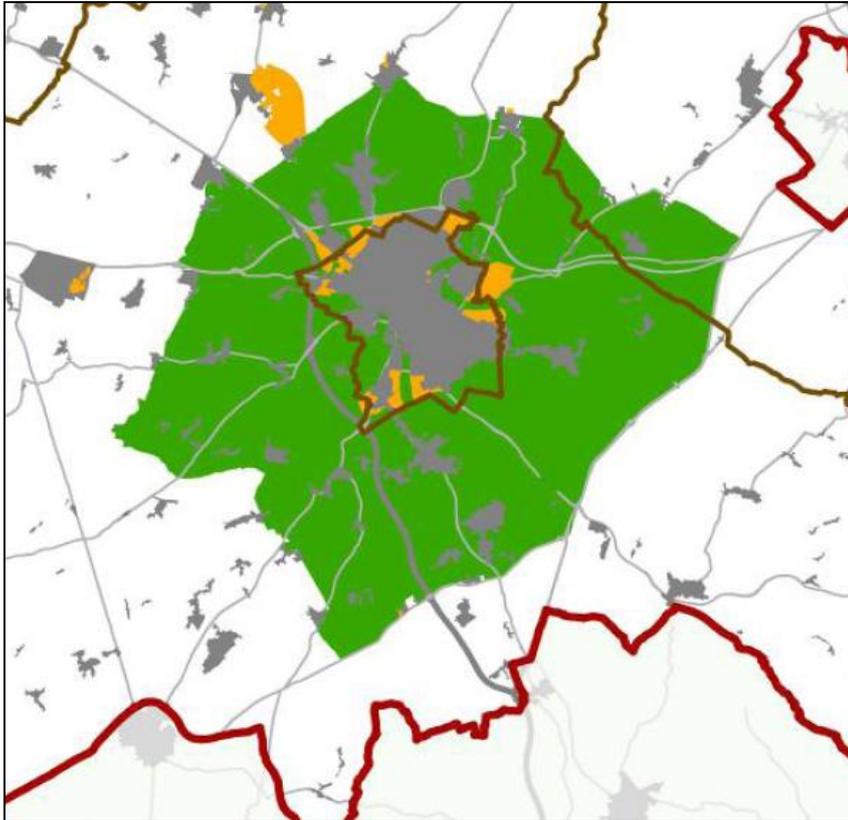
### 9.3 What’s the baseline situation?

#### Landscape

- 9.3.1 A defining characteristic of Cambridge is that it is very flat. Within the City the only panoramic view is from Castle Hill located to the north east of the City Centre. As a result the few tall buildings in Cambridge – St John's and King's College Chapels, the University's New Museums Site, church spires, Cambridge University Library – are the major landmarks and play an important role in defining the character of central Cambridge.
- 9.3.2 Cambridge benefits from a variety of different open space which encompass, penetrate and ‘frame’ the City Centre. Expansive views across these spaces, in particular along and across the river corridor allow the grand, mainly university buildings and the major landmarks to define the edge of the centre. The Backs, to the west of the City Centre in particular provide some of the most enduring images of central Cambridge. To the north and west of the centre Christ's Pieces, Jesus Green and Parker's Piece perform a similar function. To the south of the centre, the areas of Coe Fen and Sheep's Green are more accessible and open than the Backs and they contain mature trees and livestock. Views across these open spaces give the impression of Cambridge as a walled town.<sup>92</sup>
- 9.3.3 The watercourses and waterbodies which lead into and bisect Cambridge are also important in giving the town its character. The route of the Cam through the open spaces and into the historic core is particularly iconic.
- 9.3.4 Cambridge is surrounded by a Green Belt which extends into South Cambridgeshire and across to East Cambridgeshire (Figure 9-1). The Green Belt acts to preserve the character of the City and the quality of its historic setting by maintaining the distinction between neighbouring communities. This is particularly important in Cambridge where the historic core is a defining feature and the distances from the core to the urban edge are relatively short. The Green Belt acts to prevent development from obscuring important vistas of Cambridge from wider points in the landscape. The Local Plan (2006) released areas of Green Belt for development.

<sup>92</sup> Cambridge Historic Core Appraisal (2006) [online] at [http://www.cambridge.gov.uk/public/pdfs/Chap2\\_Under\\_City\\_TS%20PRINT.pdf](http://www.cambridge.gov.uk/public/pdfs/Chap2_Under_City_TS%20PRINT.pdf) (Accessed January 2012)

**Figure 9-1: Cambridge Green Belt with proposed development sites<sup>93</sup>**



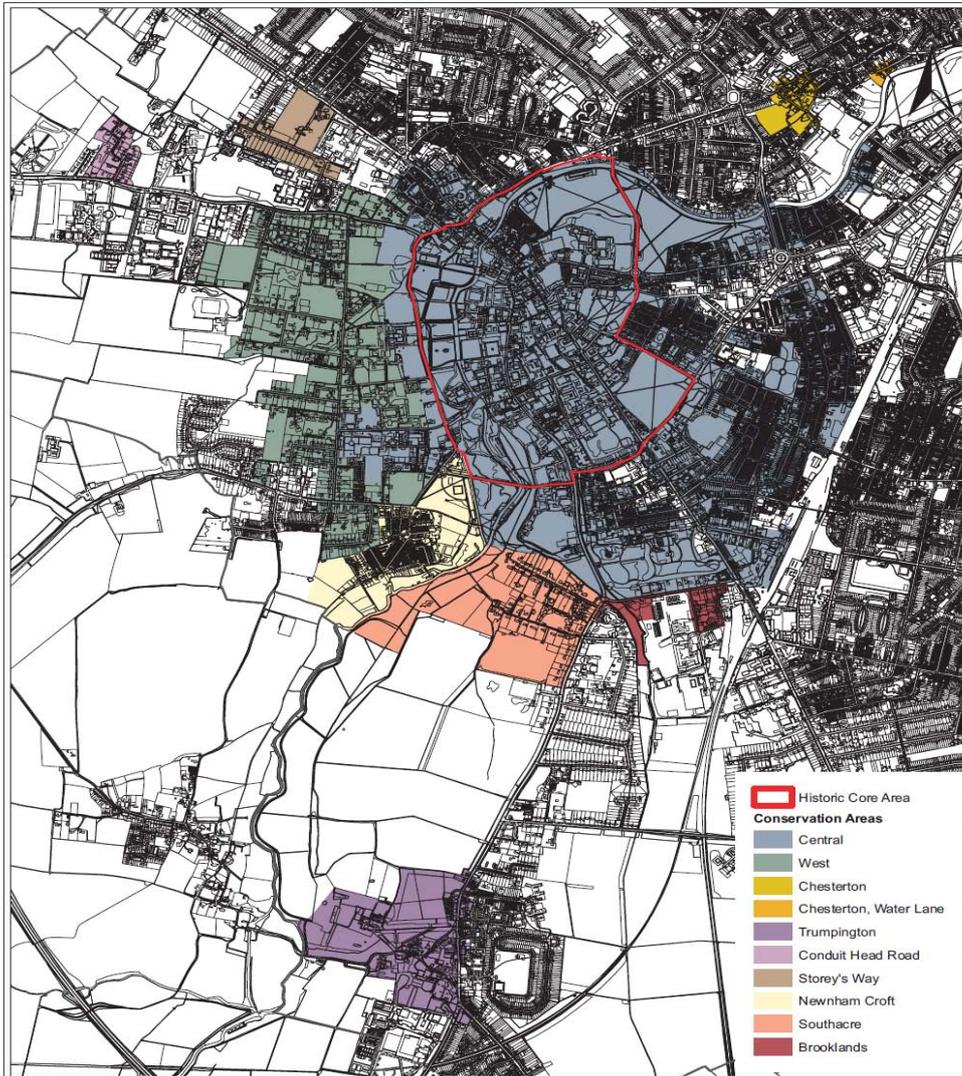
**Historic Environment and Townscape**

- 9.3.5 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.
- 9.3.6 Cambridge has 868 Listed Buildings: 66 grade I, 52 grade II\* and 750 grade II. As some list descriptions cover more than one building, there are in fact, in excess of 1,500 Listed Buildings in the City. Cambridge also has 5 Scheduled Ancient Monuments, 11 Historic Parks and Gardens and 11 Conservation Areas covering a total of 838 hectares. There are also in excess of 1,000 Buildings of Local Interest.<sup>94</sup> Within the centre, the college grounds of Christ's, Clare, Emmanuel, King's, Queens', St John's, Trinity Hall and Trinity Colleges are all registered by English Heritage as being of 'special interest'.
- 9.3.7 A large part of the city is therefore afforded protection from development (Figure 9-2).

<sup>93</sup> Source: Cambridgeshire Green Infrastructure Strategy Appendix 8

<sup>94</sup> Cambridgeshire Horizons (Undated) Green Infrastructure Strategy, Appendix 8, [http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/green\\_infrastructure\\_strategy.pdf](http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/green_infrastructure_strategy.pdf) (accessed January 2012)

Figure 9-2: Conservation areas in Cambridge<sup>95</sup>



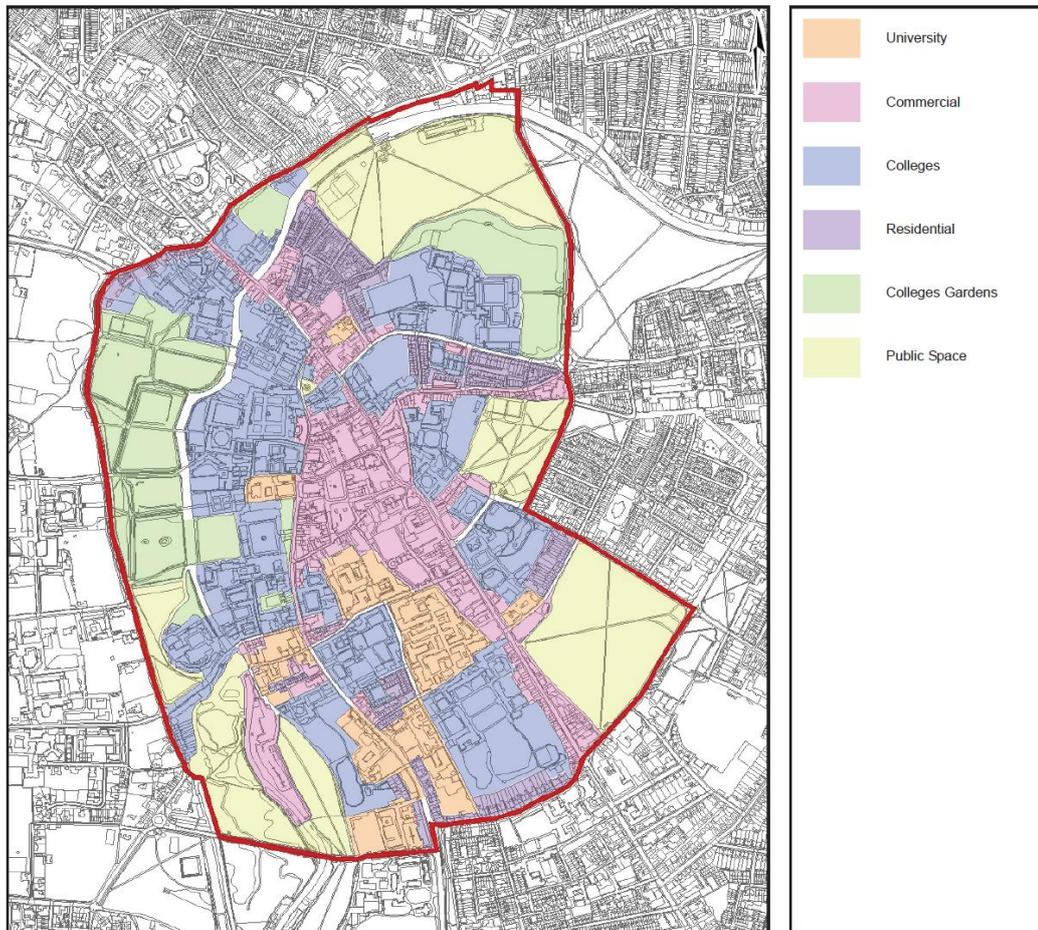
- 9.3.8 The historic “core” is characterised by a collection of prominent landmark buildings; narrow intimate streets and high quality well designed buildings. It includes the commercial centre with its busy and vibrant streets centred around the market square.
- 9.3.9 In contrast, the colleges, many of which surround the commercial centre are noted for having a ‘country house’ setting characterised by *‘introverted, seemingly impenetrable buildings and high walls’*.<sup>96</sup> Unlike the vernacular building of the centre the colleges are of particular architectural style, often representative of the era of their construction.
- 9.3.10 Beyond the colleges Cambridge is characterised by university buildings and residential areas. The university buildings, many of which are of a specific style built with outstanding detailing and materials often conceal, out of sight, more functional and less grand university facilities that have been added at a later date.

<sup>95</sup> Cambridge City Council (2006) Historic Core Appraisal [online] available at: <http://www.cambridge.gov.uk/ccm/content/planning-and-building-control/historic-environment-and-trees/historic-core-appraisal.en>

<sup>96</sup> Cambridge City Council (2006) Historic Core Appraisal, <http://www.cambridge.gov.uk/ccm/content/planning-and-building-control/historic-environment-and-trees/historic-core-appraisal.en>, (accessed January 2012)

- 9.3.11 Residential areas include a variety of building styles including: impressive eighteenth century town houses such as Little Trinity on Jesus Lane<sup>97</sup>; the vernacular, such as on Little St Mary’s Lane; as well as large areas of terraced housing and more recent nineteenth/twentieth century housing. Within the Central CA there are pockets of distinctive residential units such as rows of two storey terraced houses that line Mill Road and a collection of 19<sup>th</sup> Century terraced houses in the Kite CA.
- 9.3.12 The Historic Core Appraisal (2006)<sup>98</sup> summarises the townscape of Cambridge as a commercial core surrounded by colleges, university and residential buildings, beyond which lie the river and open spaces. (Figure 9-3).

**Figure 9-3: Predominant land use in historic core<sup>99</sup>**



- 9.3.13 The character of the townscape outside of the historic core is very varied. This is reflected in the large number of smaller conservation areas, which have distinctive characters<sup>100</sup>:

- To the west and south west of the River Cam, the townscape is characterised by colleges and other University buildings, which have expansive playing fields and grounds and a

<sup>97</sup> Source: <http://www.cambridge2000.com/cambridge2000/html/0003/P3040234.html> (accessed 2012)

<sup>98</sup> Cambridge City Council (2006) Historic Core Appraisal, <http://www.cambridge.gov.uk/ccm/content/planning-and-building-control/historic-environment-and-trees/historic-core-appraisal.en>, (accessed January 2012)

<sup>99</sup> Cambridge City Council (2006) Historic Core Appraisal [online] available at: <http://www.cambridge.gov.uk/ccm/content/planning-and-building-control/historic-environment-and-trees/historic-core-appraisal.en>

<sup>100</sup> Cambridge City Council (2011) Cambridge Skyline Strategy – Supplementary Planning Document [online] available at: <http://www.cambridge.gov.uk/democracy/mgConvert2PDF.aspx?ID=3553>

collection of private houses set within large gardens. Development to the west of the City has been at a much lower density than development in the north and east.

- To the north of the City Centre, there are extensive areas of Edwardian and Victorian terraces and townhouses, which have subsumed the ancient village centres of Chesterton. Chesterton has retained many aspects of its origins, such as its more irregular, intimate pattern of streets. These are in contrast to the Edwardian and Victorian rectilinear street patterns, which surround it. At the far northern edge of the City is the Science Park, a collection of large research and office buildings set amidst landscape grounds built from the 1970s onwards.
- To the east of the City lies substantial areas of relatively higher density development and includes small to medium sized Victorian, Edwardian and interwar terraces set out on relatively tight, rectilinear street patterns. Large scale post WW2 development has occurred at Cherry Hinton on the far eastern edges of the City, and include the substantial aircraft hangars and works of Marshall's Airport which sit prominently within a flat, open landscape.
- Further south in the City are large areas of early to mid 20th Century terraced, detached and semi-detached homes, which are often well set back from roads on wide, tree lined avenues. These include the striking modernist houses, which were built in the 1930's and 1960's and are important to the character of the Conduit head Road Conservation Area.

9.3.14 The approaches into Cambridge are also important. The approaches from the South West, West and North West are generally though open countryside and leafy suburbs, while the approach from the East is through a more commercial and industrial landscape.

#### **9.4 What would the situation be without the Plan?**

9.4.1 The Local Plan (2006) has generally performed well in protecting the townscape, landscape and historic environment of Cambridge. New developments within Cambridge have been constructed in a style which conforms to that stipulated in the 'Cambridge Landscape Character Assessment'. Furthermore, the policies relating to listed buildings (4/10) and conservation areas (4/11) have been used frequently to protect the distinctive townscape. However the application of policy 4/12, which affords protection to Buildings of Local Interest (BLI), raises concerns<sup>101</sup>, as it only applies when works are proposed which require planning permission. As a result a number of BLIs have been lost. However, the revised Plan has limited powers to protect BLIs, as BLIs outside conservation areas have no formal protection from demolition under current planning legislation. It is possible that the occasional loss of BLIs will continue.

9.4.2 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.

#### **9.5 What are the key issues and opportunities?**

9.5.1 There is a need to:

- ensure the protection and enhancement of the historic environment through appropriate design and scale of new development
- recognise the role of the Green Belt in maintaining the character of the City and the quality of its historic setting
- actively promote the character and distinctiveness of the Conservation Areas

<sup>101</sup> Cambridge City Council Annual Monitoring Report (2011)

- ensure the scale of new development is sensitive to the existing key landmark buildings and low lying topography of the City

**9.6 Are there any data gaps?**

- No data gaps have been identified

## 10 BIODIVERSITY AND GREEN INFRASTRUCTURE

### 10.1 Introduction

10.1.1 Biodiversity is the term given to the diversity of life on Earth and this includes the plant and animal species that make up our wildlife and the habitats in which they live. As well as being important in its own right, we value biodiversity because of the ecosystem services it provides, such as flood defence and clean water; and the contribution that biodiversity makes to wellbeing and sense of place. It is recognised that biodiversity can be sensitive to a number of other factors including air quality, noise, water quality and resources and this chapter should be read in conjunction with these sections.

10.1.2 Green infrastructure is a network of multifunctional green spaces including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It can help to make walking and cycling more attractive; promote mental wellbeing; help to establish local identity and a sense of place; help to reduce air pollution; contain flooding; and reduce temperatures at a time of global warming.<sup>102</sup>

### 10.2 What's the policy context?

10.2.1 The **EU Sustainable Development Strategy**, adopted in 2006, includes an objective to halt the loss of biodiversity by 2010. The UK is also a Party to the Convention on Biological Diversity(CBD), a principal objective of which is the conservation of biodiversity. Commitment to the CBD led to the preparation of the 1994 UK Biodiversity Action Plan (UK BAP), the overall goal of which is to conserve and enhance biodiversity within the UK and to contribute to efforts to conserve global biodiversity. The UK BAP identifies our most threatened biodiversity assets and includes action plans for the recovery of priority species and habitats. A Biodiversity Strategy for England was subsequently published in 2002 and includes the broad aim that planning, construction, development and regeneration should have minimal impacts on biodiversity and enhance it wherever possible.

10.2.2 **PPS 1 Supplement on Planning and Climate Change** (2007) sets out a range of considerations which planning authorities should take into account when deciding the location and type of development. One of these considerations is the contribution existing and potential future open space can make towards urban cooling and biodiversity conservation and enhancement.

10.2.3 **PPS9 on Biodiversity and Geological Conservation** (2005) emphasises that the Government's objectives for planning include ensuring that biodiversity is conserved and enhanced as an integral part of social, environmental and economic development, so that policies and decisions about the development and use of land integrate biodiversity with other considerations. Importantly, the Natural Environment and Rural Communities Act 2006 placed a Duty on public authorities to have regard to the conservation of biodiversity in exercising their functions. According to the Government the Duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision-making.

10.2.4 The **Draft National Planning Policy Framework** (2011) states that the planning system should aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. It places a duty on Local Planning Authorities to set out a strategic approach to for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure. However, loss to biodiversity will be permitted if the need for and benefits from development outweigh the costs.

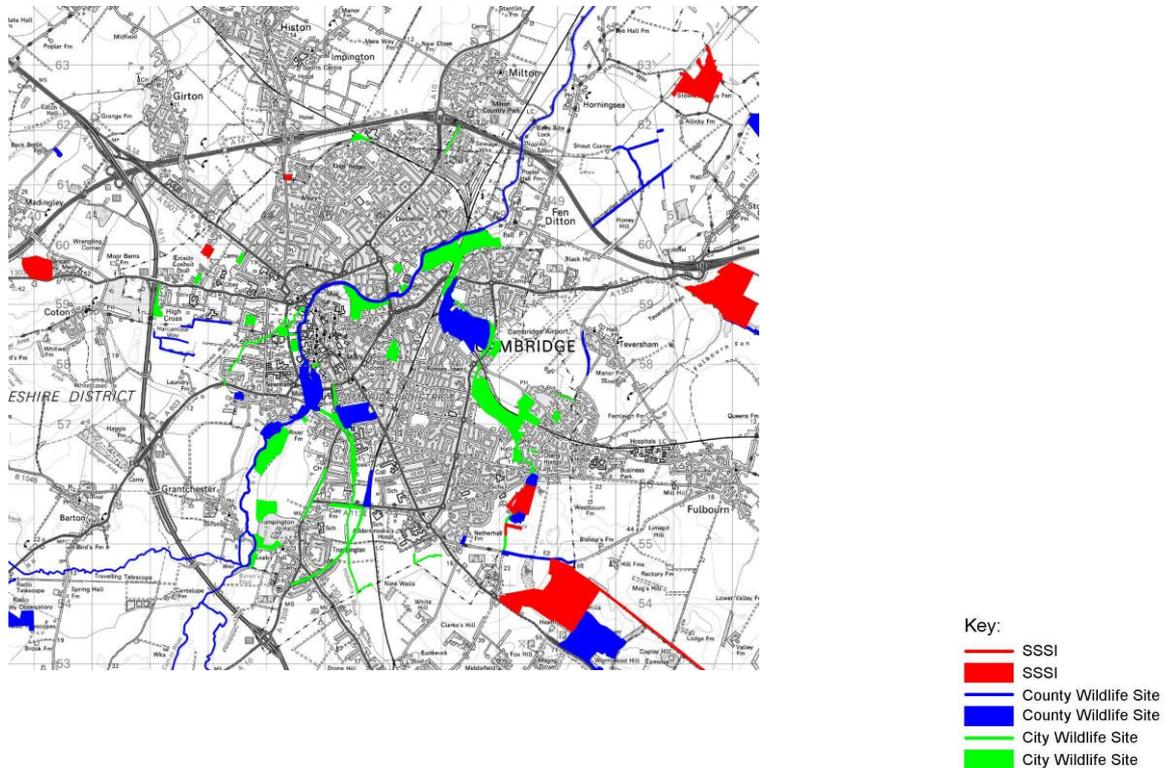
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<sup>102</sup> Davies et al. (2006) Green Infrastructure Planning Guide

- 10.2.5 **The Natural Choice:** securing the value of nature (2011), a recent Government White Paper on the natural environment, sets out the importance of a healthy, functioning natural environment to sustained economic growth, prospering communities and personal well-being. It aims to facilitate greater local action to protect and improve nature; create a green economy, in which economic growth and the health of our natural resources sustain each other, and markets, business and Government better reflect the value of nature; strengthen the connections between people and nature to the benefit of both; and show leadership in the European Union and internationally, to protect and enhance natural assets globally.
- 10.2.6 **The Green Infrastructure Guidance** (Natural England, 2009) sets out the benefits and functions of Green Infrastructure and encourages a co-ordinated and consistent approach to Green Infrastructure planning. It states: *“Green Infrastructure is a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features...Green Infrastructure includes established green spaces and new sites and should thread through and surround the built environment and connect the urban area to its wider rural hinterland”*.
- 10.2.7 The first **Green Infrastructure Strategy (2006)** provided a strategy for the provision of large-scale Green Infrastructure for the Cambridge Sub-Region over a 20 year period to complement and support the planned growth. The **Green Infrastructure Strategy (2011)** takes this strategy forward and reports on progress made towards improving green infrastructure throughout Cambridge. It identifies four objectives:
- Reverse the Decline in Biodiversity;
  - Mitigate and Adapt to Climate Change;
  - Promote Sustainable Growth and Economic Development; and
  - Support Healthy Living and Well-being.
- 10.2.8 The Council’s **Nature Conservation Strategy 2006 - 2016** comprises an assessment of the most important areas for wildlife within the City’s boundaries and sets out a strategy and action plan for the preservation and enhancement of wildlife value across Cambridge.
- 10.2.9 **Nature Nearby: Accessible Natural Greenspace Guidance** (Natural England, 2010) sets out the Accessible Natural Greenspace Standard (ANGSt). This provides a set of benchmarks which should be used to ensure new and existing residential development have access to nature. It is based upon three principles; improving access; improving naturalness; and improving connectivity. ANGSt recommends that everyone should have an accessible natural greenspace:
- of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home;
  - at least one accessible 20 hectare site within two kilometres of home;
  - one accessible 100 hectare site within five kilometres of home; and
  - one accessible 500 hectare site within ten kilometres of home; plus
  - a minimum of one hectare of statutory Local Nature Reserves per thousand population.

10.3 What’s the baseline situation?

Figure 10-1: Nature conservation sites in Cambridge<sup>103</sup>



Priority habitats and species

10.3.1 UK Biodiversity Action Plan (BAP) and Local BAP Priority Habitats and Species found within Cambridge include<sup>104</sup>:

Habitats	Species
Lowland calcareous grassland;	Great Crested Newt;
Lowland meadows;	Water Vole;
Wet woodland;	Otter;
Ancient / and or species-rich hedgerows;	Pipistrelle Bat;
Lowland mixed deciduous woodland;	Song Thrush;
Rivers and streams;	Skylark, Bullfinch, Turtle Dove amongst many other farmland birds; and
Floodplain grasslands;	Brown Hare.
Veteran trees including pollard willows;	
Scrub; and	
Drainage ditches and ponds.	

<sup>103</sup> Source: Cambridge City: Nature Conservation Strategy

<sup>104</sup> The Wildlife Trusts (2006) Nature Conservation Strategy [online] available at: [http://lnr.cambridge.gov.uk/uploads/Nature%20Conservation%20Strategy%20Sept%2006%20\(Section%20A\).pdf](http://lnr.cambridge.gov.uk/uploads/Nature%20Conservation%20Strategy%20Sept%2006%20(Section%20A).pdf)

- 10.3.2 There are a range of different habitats in Cambridge supporting a variety of different species. The River Cam and its floodplain forms the major green corridor through the City and includes a variety of natural habitat features, such as small pockets of fen, wet grassland and wet woodland and a large number of old pollarded willows. Cambridge has few areas of woodland and very little ancient woodland. A few remnant ancient hedgerows can be found on the edges of the City, to the east at Cherry Hinton and to the west towards Coton.<sup>105</sup> There is very little in the way of species-rich grassland within Cambridge, the majority of the grassland being formally managed amenity grass or the agriculturally improved commons.
- 10.3.3 Cambridge benefits from large areas of farmland particularly to the south and east of the City. However, there is potential that large areas of this will be lost with the proposed urban extensions. These areas support a number of species including Skylark and other farmland birds; and Brown Hare.
- 10.3.4 Cambridge has two SSSIs: the chalk pits at Cherry Hinton and the Traveller's Rest Pit. Together they have a combined area of 15.03 hectares.<sup>106</sup> 36.1% of the SSSI's land area remains in favourable condition; an increase of 0.3% on 2009-2010. 57.4% of SSSI land is classed as Unfavourable Recovering and 6.5% as Unfavourable No Change. In 2009 and 2010 these figures were 0% and 64.2% respectively. The large change from Unfavourable No Change to Unfavourable Recovering can be explained by the improvements made to the status of Cherry Hinton Pit Unit 1. In addition there are a network of Local Wildlife Sites (City and County) which are deemed important in protecting and enhancing biodiversity across Cambridge.
- 10.3.5 National Indicator 197: Improved Local Biodiversity looks at the proportion of local sites where positive conservation management has been or is being implemented. In Cambridge 237 out of 416 sites (57%) have shown positive conservation management, an increase of 9.9% on last year's figures.<sup>107</sup>

### **Green Infrastructure<sup>108</sup>**

- 10.3.6 The Green Infrastructure Strategy for the Cambridge Sub-region was developed in 2006 and reviewed the existing provision of green infrastructure in the area. Cambridge has a high standard of Green Infrastructure (1.8ha of informal open space per 1,000) with particularly high provision in some wards to the north east, south east and south west of the City, however there is a marked under-provision in some wards to the north and south. The River Cam forms a key corridor which performs a key role in offering green infrastructure provision in and around Cambridge. Beyond Cambridge there is high provision of accessible green infrastructure to the north east, south and west (see Figure 10-2).

<sup>105</sup> The Wildlife Trusts (2006) Nature Conservation Strategy [online] available at:

[http://lnr.cambridge.gov.uk/uploads/Nature%20Conservation%20Strategy%20Sept%2006%20\(Section%20A\).pdf](http://lnr.cambridge.gov.uk/uploads/Nature%20Conservation%20Strategy%20Sept%2006%20(Section%20A).pdf)

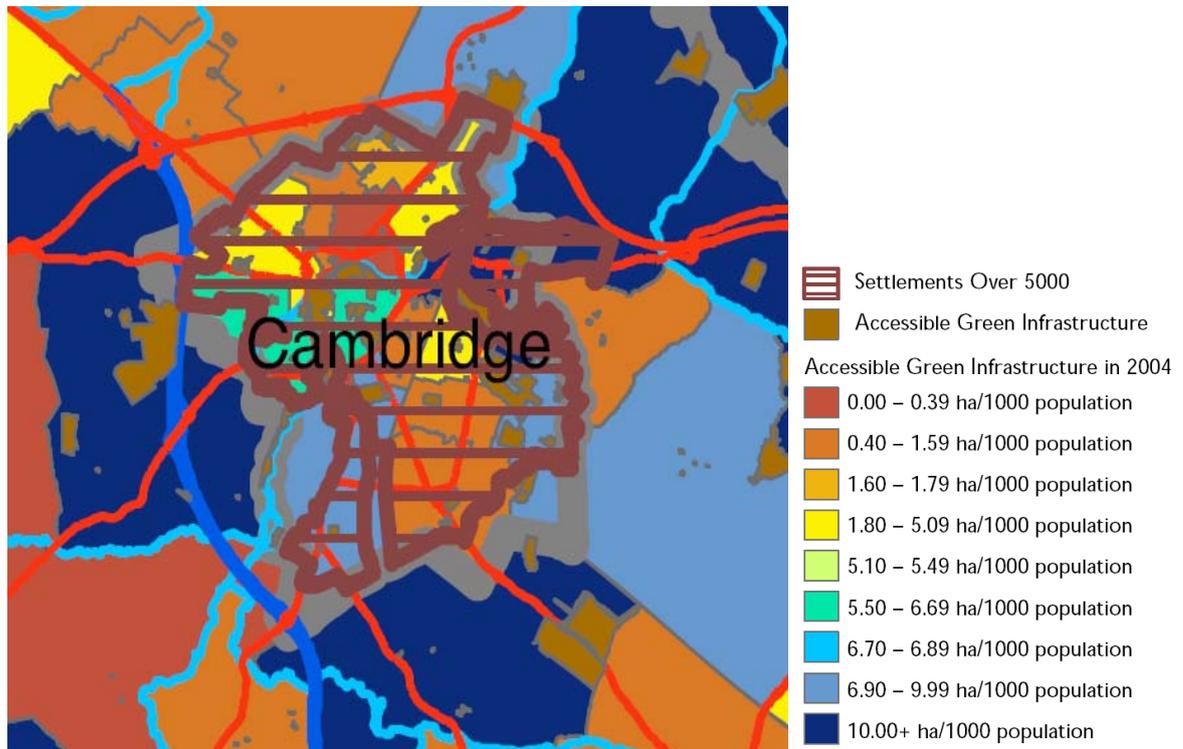
<sup>106</sup> Cambridge City Council (2011) Annual Monitoring report [online] available at: <http://www.cambridge.gov.uk/public/docs/annual-monitoring-report-2011.pdf>

<sup>107</sup> Cambridge City Council Annual Monitoring Report (2011)

<sup>108</sup> Cambridge Horizons (2006), Green Infrastructure Strategy [online] available at:

[http://www.cambridgeshire.gov.uk/NR/rdonlyres/DFC9B030-E462-47B4-8365-12454D0B01AC/0/GreenInfrastructureMap.pdf?bcsi\\_scan\\_AB11CAA0E2721250=0&bcsi\\_scan\\_filename=GreenInfrastructureMap.pdf](http://www.cambridgeshire.gov.uk/NR/rdonlyres/DFC9B030-E462-47B4-8365-12454D0B01AC/0/GreenInfrastructureMap.pdf?bcsi_scan_AB11CAA0E2721250=0&bcsi_scan_filename=GreenInfrastructureMap.pdf)

**Figure 10-2: Accessible Green Infrastructure by Ward – 2004<sup>109</sup>**



**10.4 What would the situation be without the Plan?**

- 10.4.1 Cambridge has a relatively small and fragmented number of habitats which support biodiversity<sup>110</sup>. However, although the management of these has improved over the last year<sup>111</sup> the pressure for development in Cambridge is likely to add greater pressure on these habitats, particularly for species reliant on open farmland. The Open Space and Recreation strategy (2011) seeks to safeguard existing open spaces and provides minimum standards for open space in new developments. The strategy was adopted as a material consideration in planning decisions by the Council and as a result should protect and enhance new open space provision for new developments.
- 10.4.2 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 though reconnecting fragmented habitats as recommended in the Lawton Review may not be maximised.
- 10.4.3 The Green Infrastructure Strategy identified a number of key objectives for Cambridge. Without explicit support for green infrastructure in the Plan these objectives are unlikely to be met (Green Infrastructure is not mentioned in the Local Plan (2006)).

<sup>109</sup> Source: Cambridge Horizons (2006), Green Infrastructure Strategy [online] available at: [www.cambridgeshire.gov.uk/NR/.../GreenInfrastructureMap.pdf](http://www.cambridgeshire.gov.uk/NR/.../GreenInfrastructureMap.pdf)

<sup>110</sup> Cambridge City Council (2006) Cambridge City Nature Conservation Strategy “Enhancing Biodiversity”

<sup>111</sup> National Indicator 197: Improved Local Biodiversity. 237 out of 416 sites (57%) have shown positive conservation management, a 9.9% increase on 2010 figures

**10.5 What are the key issues and opportunities?**

## 10.5.1 There is a need to:

- 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

**10.6 Are there any data gaps?**

- No data gaps have been identified

## 11 CITY CENTRE

### 11.1 Introduction

11.1.1 Cambridge City Centre is both a historic yet forward looking and modern City supporting a world famous university and a growing service and high tech economy. It is also a regional shopping destination. This section addresses the particular challenges and opportunities specific to the City Centre. It does not seek to repeat information addressed in other topic chapters such as transport or economy.

11.1.2 The area covered by this City Centre area is wider than the City Centre boundary shown on the proposals map of the 2006 Local Plan. This area was based upon the recommendations of the 'Cluster at 50' Study for a wider central area including the area north to south - between Castle Hill and Cambridge Leisure Park, and – west to east - from the Backs to the Cambridge Retail Park.

### 11.2 What's the policy context?

11.2.1 For an understanding of the wider policy context that is of relevance to the City Centre, it is also recommended to read the policy context that has been collected for each of the thematic topics. This section presents the key strategies and policies most relevant to the City Centre.

11.2.2 One of the main spatial components of the existing Local Plan's (2006) spatial strategy is "A thriving and accessible historic core".

*"The historic core and the surrounding central areas will be enhanced as the focus for civic activities, the two Universities, shopping, leisure and City Centre living. Streets and public spaces in the City Centre will be enhanced and made more friendly to the pedestrian as access by the private car is progressively discouraged by physical barriers and demand management measures. The accessibility of the City Centre for pedestrians, cyclists, and users of taxis and public transport will be improved, and special consideration will be given to the needs of disabled people. The attractiveness of the City Centre as a Sub-regional shopping destination will be enhanced by the implementation of the Grand Arcade shopping development on St Andrew's Street, and other redevelopments at Bradwell's Court and around the Grafton Centre."*

11.2.3 While the plan should be taken as a whole, some of the key policies that support the spatial strategy for the City Centre include:

- Policy 5/4 – Loss of Housing - aims to reverse the loss of Housing through conversion into office, hotels and community facilities to help meet the demand for housing in the City Centre where additional residents will add to its vitality and the feeling that it is a safe place, particularly at night. Redevelopment will not be permitted unless it meets strict criteria.
- Policy 6/2 - New Leisure Facilities - allows the development for the provision or improvement of a leisure facility will be permitted if it improves the range, quality and accessibility of facilities; is of an appropriate scale for the locality; and it would not have a negative impact upon the vitality and viability of the City Centre, including the evening economy.
- Policy 6/4 - Visitor Attractions - Development which maintains, strengthens and diversifies the range of visitor attractions will be permitted if they are well related to the cultural heritage of the City. The needs of visitors should be considered in all developments in the City Centre to which the public have access, specifically the need for more meeting places and covered seating areas.
- Policy 6/6 - Change of Use in the City Centre - Change of use from A1 to A2, A3, A4 or A5 uses at ground floor level will only be permitted in primary shopping frontages where the

proposal would not harm the contribution the frontage makes to the vitality and viability of the City Centre.

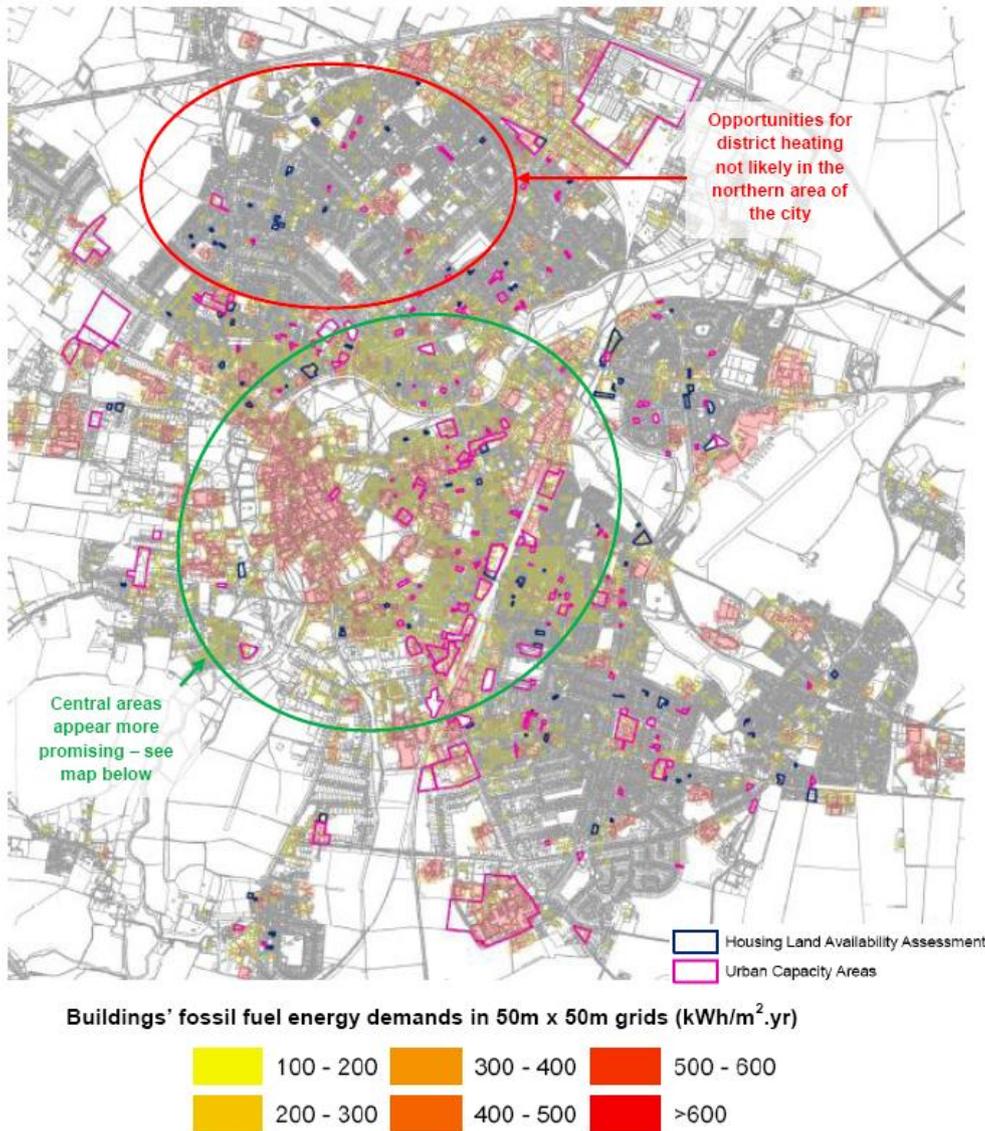
- 11.2.4 Policies relating to retail seek to enhance the vitality and viability of the City Centre and maintain a high proportion of A1 shops, whilst recognising the importance of other complimentary uses such as restaurants and cafés. A distinction is also made between primary frontages which are the core shopping area and secondary frontages which tend to be at the fringes of the City Centre and have a more diverse offer of uses.
- 11.2.5 Further policy context is provided by the ‘Cambridge Cluster at 50’ Study (2010). The study concluded that a key challenge for Cambridge is the fact that its City Centre is physically small and, moreover, is highly constrained both as a result of its historic character and the ownership structure of land and property within it. Demand to locate in the City Centre cannot be met, and the implication is that it is mainly the conventional City Centre uses (retail, leisure, etc.) that are “winning out”. The study emphasises the need to maintain a focus on meeting the needs of the high tech business community, the distinctive – and high value – element of the Cambridge Cluster more generally. For this to happen, the study identifies 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 study emphasises 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 study also emphasises that: the City Centre needs to be a place in which HQ functions are welcomed; and there is a need to improve connectivity between the railway station, City Centre and the principal employment sites.

### 11.3 What’s the baseline situation?

- 11.3.1 In order to develop the baseline situation, this report has drawn mainly on information from the Cambridge City Council Open Space and Recreation Strategy (2011) and Cambridge Cluster at 50 (2011) report by SQW. Further information on the historic environment is provided in Chapter 9.
- 11.3.2 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. In addition to the residential provision of the university colleges and larger townhouses the centre is characterised by terraced housing interspersed with impressive open spaces including Christ’s Pieces, Jesus Green, Midsummer Common and Parker’s Piece. In addition the centre benefits from a number of smaller parks. The centre’s open spaces provide not only local and City wide resources, but also serve people from further afield, in Particular Christ’s Pieces, due to its proximity to the Drummer Street Bus Station. In total the City Centre has around 8ha of Protected Open Space of which over 60% is publicly accessible.
- 11.3.3 Cambridge City Centre has developed its economy significantly over the last decade or so as the centre has become a regional retail and business centre. Investment in the Grand Arcade catapulted Cambridge up the national retail rankings while maintaining the quality of the historic City Centre. There have also been other significant developments, including Cambridge Retail Park (on Newmarket Road) and Cambridge Leisure Park (on the old cattle market site) which have complemented the established retail and cultural offer (linked to theatres, concerts, festivals and so on). All of this has been really important in terms of the “quality of life” and variety of facilities that Cambridge provides, and that in turn has proved very important in attracting and retaining what is, in part, a globally mobile workforce. However, there are concerns about the capacity of the central area to accommodate the range of businesses that want to locate there, and the impact on quality of experience of the ever-increasing number of people that want to use its services and tourists who want to visit.

11.3.4 In line with the requirements of the PPS1 Supplement, the Council commissioned consultants to produce an evidence base to help establish future planning policy direction in relation to climate change. The Decarbonising Cambridge report<sup>112</sup> assessed the areas identified with potential for development relative to areas of existing heat demand density (see Figure 11-1). The report identified the potential opportunity for district heating in central Cambridge and Cambridge City Council are currently undertaking further detailed studies on this.

**Figure 11-1: Areas of high heat density relative to SHLAA and Urban Capacity Areas<sup>113</sup>**



<sup>112</sup> Element Energy (2010) Decarbonising Cambridge: A renewable and low carbon energy study for Cambridge City Council, Final Report, September 2010

<sup>113</sup> Element Energy (2010) Decarbonising Cambridge: A renewable and low carbon energy study for Cambridge City Council, Final Report, September 2010

### **The railway station area**

- 11.3.5 The ‘Cambridge Cluster at 50’ study recommended that the City Centre area should extend as far as the station (as well as to the retail park on Newmarket Road, and up to Shire Hall in the North). The study identified an urgent need to improve connectivity between Cambridge railway station, the City Centre and the principal employment sites (Cambridge Science Park, West Cambridge and Addenbrooke’s hospital site), acknowledging the strong demand for easy access to both the City Centre and London. The study suggests that a key element of this should be the development of a new station at Chesterton which also links into the Cambridgeshire Guided Busway.
- 11.3.6 The spatial strategy of the Local Plan (2006) included the regeneration of the Station Area as a mixed use City district built around an enhanced transport interchange. This development is also known as CB1 and has outline planning permission for a new public square, a new transport interchange, new cycle parking and 1,250 student units as well as 331 residential units (including 40% affordable housing). Reserved matters applications have subsequently been granted and works have commenced on site.

### **11.4 What is the situation without the plan?**

- 11.4.1 The Cambridge Cluster at 50 Study (2010) identifies that the difficulty of achieving further improvement is compounded by the fact that the central area is spatially fragmented, which in turn is creating real challenges in terms of access and coherence. Moreover, there is significant demand for office space within the City Centre; this stems from the financial and business services sector (as might be expected) but also from the high tech and research communities. Of great symbolic importance in this context has been the announcement from Microsoft of its intention to relocate its research facility from a prime site in West Cambridge to a more central location close to the railway station.
- 11.4.2 Looking forward it is likely that increasing demand from the growing business, finance, technology and research sectors for City Centre office space may not be met and that current policies don’t provide enough flexibility to in order to adapt to changing demands. This is largely due to the Local Plan’s (2006) existing policy framework aimed at maintaining and where possible increasing the provision of housing in the City Centre with the aim to add to the vitality and sense of safety in the evening.
- 11.4.3 In parallel with additional demand for office space in the City Centre the anticipated increasing population and growing catchment area is likely to result in growing expectations for continual improvement for retail and service offer in the City Centre.
- 11.4.4 Compared to the rest of Cambridge, the City Centre has a high energy demand. This is a result of its compact nature supporting a high proportion of retail and business premises. This presents an opportunity for significant energy efficiency savings and potential implementation of low carbon energy solutions. It is unlikely that the Local Plan (2006) provides a strong enough policy framework in order to maximise these opportunities.
- 11.4.5 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.

### **11.5 What are the key issues and opportunities?**

- 11.5.1 Within the City Centre, there is a need to:
- 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

**11.6 Are there any data gaps?**

11.6.1 There is limited baseline information on sustainability issues specific to the City Centre and therefore it will be important that stakeholders with strategic understanding of the key issues facing the City Centre contribute to this report.

11.6.2 Based on current information it is important to:

- Identify to what extent additional general office floorspace can be provided to meet the increasing business demand without adversely affecting the existing character of the centre
- Further investigate the opportunities for energy efficiency measures and renewable energy technologies / low carbon energy schemes that could be deployed to reduce emissions associated with the Centre's energy demand

## 12 NORTH CAMBRIDGE

### 12.1 Introduction

12.1.1 This Chapter gives consideration to the policy context, the baseline situation and the issues and opportunities in relation to the North Cambridge area.<sup>114</sup> It does not seek to replicate spatially specific information presented under the ‘thematic’ chapter headings. Rather, it seeks to a) present a high-level ‘impression’ of the area, so that it becomes easier to interpret the spatially specific implications of issues identified within the thematic chapters; and b) review and present information from a limited number of data-sources that provide a ‘fine-grained’ spatial understanding of sustainability issues.

### 12.2 What’s the policy context?

12.2.1 Of the six major areas of change in and around Cambridge the following two are located within North Cambridge: Huntingdon Road / Histon Road (the National Institute of Agricultural Botany (NIAB 1) site); and Northern Fringe East. This section reviews policy set for these areas on the assumption that it will have been developed to reflect priorities for the wider area. Furthermore, the ‘Madingley Road/Huntingdon Road (North West Cambridge)’ area of change is partially located within the North Cambridge Area (although primarily within the West Cambridge Area, and so the policy context is considered within the West Cambridge Chapter).

12.2.2 The relevant policy for NIAB 1 is 9/8 in the Local Plan, however things have moved on considerably from this policy and development has outline planning permission subject to completion of a S106 agreement. Amongst other things, the Local Plan Policy highlighted the importance of an open space buffer in order to respect the setting of Girton and links with the strategic gap (part of which is designated Green Belt) which straddles Huntingdon Road between Girton and Cambridge. The policy also set a number of requirements relating to ‘accessibility’, including the need to carefully control vehicular access to the area and give priority to public transport, cycling and walking links along certain roads.

12.2.3 In terms of the North East Fringe development, the relevant policy in the Local Plan (2006) no longer applies as it relied upon the relocation of the waste water treatment works to another site and it was found that this would be unviable. Instead the site will be taken forward through the Local Plan review and will focus on employment-led development around the planned Chesterton Station. Chesterton Station will be located on Chesterton Sidings which fall within South Cambridgeshire District Council. The City Council will be working with South Cambridgeshire District Council to ensure co-ordinated policies are developed.

12.2.4 It is also worth noting that Policy SP/2 of the South Cambridge Site Specific Policies DPD (2010) set policy for the Huntingdon Road / Histon Road (NIAB 2) area. It is noted that:

- A Landscape Strategy strategies must be developed that consider the setting of Cambridge and views of key features of the City;
- Capacity in the A14 is seen as a crucial issue and advice from the Highways Agency was that development should not be occupied until the section of the A14 between Girton and Milton has been upgraded and opened;
- There is an emphasis on the potential for development to impact surface water drainage and sewage discharge, particularly in view of known problems downstream, especially at Histon, Impington and Oakington, and other large scale development proposed that drains into that area;

<sup>114</sup> This includes Arbury, East Chesterton, King's Hedges and West Chesterton wards

- Air quality is also an important consideration in view of the Air Quality Management Area on the A14<sup>115</sup>; and
- All development will be within 400m easy walking distance of a HQPT bus stop via direct, safe and convenient routes.

12.2.5 It is also worth noting that Policy SP/1 of the South Cambridge Site Specific Policies DPD (2010) sets policy for a site on the northern fringe of Cambridge to the east of the site considered above, known as Orchard Park site (and formerly known as Arbury Park). It is noted that:

- A major benefit of this site is seen to be its proximity to employment in the nearby Science Park, as well as by good public transport provision to the rest of Cambridge by a number of routes, including the Cambridgeshire Guided Busway;
- There is a requirement to retain the potential of direct connection to any future public transport route along the former railway line;
- The south west part of the site should provide an important gateway building for those entering the historic City of Cambridge from the north; and
- Again, there is a major focus on the approach to avoiding the impact of noise and air pollution from the A14.

### 12.3 What's the baseline situation?

12.3.1 The North Cambridge area includes the wards of Arbury, King's Hedges, West Chesterton and East Chesterton. This section firstly presents an overview of the built and natural character of these wards, with information drawn primarily from the Cambridge Open Space and Recreation Strategy 2011 and various Conservation Area Appraisal documents that have been prepared. Secondly, this section draws on data relating to two specific issues - flood risk and deprivation - reflecting the fact that data-sets are available that enable a relatively fine-grained spatial understanding of the issues to be established.

#### Arbury

12.3.2 Situated to the north of the City Centre, Arbury predominantly consists of flatted blocks, terraced and semi-detached housing dating from the late 1950s onwards, with pockets of older terraced housing close to the City Centre.

12.3.3 The ward has the lowest levels of Protected Open Space in the City (0.81 hectares per 1,000 population), although the proportion that is publicly accessible is high. Some open space sites adjacent to the ward are accessible for residents, but overall there is a poor distribution of open spaces of any quality or size close to areas of housing. The St. Alban's Road Recreation Ground at the northernmost point of the ward has a community centre, sports pitch and children's play space located on the same site. This site is used extensively by local residents. The Open Space and Recreation Strategy highlights that there are opportunities to improve the quality of green spaces close to flatted blocks.

#### King's Hedges

12.3.4 This area consists predominantly of 1960s and 1970s estate housing with numerous three and four storey flatted blocks. The ward is peppered with small areas of amenity green space adjacent to housing. Open spaces are more limited close to Milton Road, with the largest parks located in the north-western end of the ward. Overall, there is 3.07 hectares Protected Open Space hectares per 1,000 population (100% of which is publicly accessible). Some open space is in poor quality. Both King's Hedges and Nun's Way Recreation Grounds have the potential to be

<sup>115</sup> The planned A14 Ellington to Fen Ditton (A14efd) scheme was withdrawn during in 2010. The Department for Transport is currently undertaking a joint study with local partners on alternatives to the withdrawn scheme. The study is due to be published in June 2012

very pleasant spaces and are used by local residents, but both suffer from damage due to vandalism and antisocial behaviour.

### West Chesterton

- 12.3.5 West Chesterton is mainly residential in nature, with some retail and office uses located around Mitcham's Corner and a number of school sites in the north of the ward. The southern part of the ward largely comprises Victorian housing, with a range of dwelling types from small terraced workers' cottages to suburban villas. The housing in the northern part of the ward is generally younger than that of the southern part of the ward and is predominantly semi-detached set in larger plots. Given the age of development and the size of gardens, some areas of the ward appear quite green and leafy. Overall, there is 1.26 hectares Protected Open Space per 1,000 population (79.8% of which is publicly accessible).
- 12.3.6 Located within West Chesterton is the **De Freville Conservation Area**. This area is adjacent to the historic City Centre of Cambridge, north of the River Cam. Midsummer Common, an iconic green space that follows the south bank of the Cam, at this point is accessible by foot and road bridges. The De Freville Conservation Area is a wholly residential area with a high degree of integrity of design. It is situated between the Conservation Areas that cover the City Centre and Chesterton village. It is important as part of the nineteenth century planned expansion of the City of Cambridge. There is a clear hierarchy of streets with the principal streets being wide with the building line set back behind larger front gardens. Each neighbourhood within the Conservation Area has a strong architectural integrity reflecting the period in which it was first developed.

### East Chesterton

- 12.3.7 Whilst the north-east of East Chesterton ward contains many employment and industrial uses, the south-west of the ward is mainly occupied by housing, with some retail uses along Chesterton High Street. Older housing is concentrated around Chesterton High Street and Ferry Lane, with 20th century housing forming much of the rest of the ward between the River Cam and Milton Road.
- 12.3.8 Overall, there is 2.89 hectares of Protected Open Space per 1,000 population (58.5% of which is publicly accessible). There is a range of open space of different types with access to a number of natural and semi-natural green spaces both within and adjacent to the ward. Chesterton Recreation Ground is one of the ward's main assets, with scope for formal and informal use of the space. Some open space is in poor quality.
- 12.3.9 Located within East Chesterton is the **Chesterton and Ferry Lane Conservation Area**. Chesterton is a suburb of Cambridge and is located approximately 1 mile to the north east of the City Centre. It lies on virtually level low lying land. The smaller Ferry Lane Conservation Area lies a short distance to the east, adjoining the River Cam around which this area is focused.
- 12.3.10 The special character of the Chesterton Conservation Area is derived from the surviving village setting of the area around the Parish Church of St Andrew, together with the suburban nature of the later development of the village. Chesterton is today a suburb of Cambridge and a predominantly residential area, although there is a commercial core that runs along the High Street which still provides local services. Remnants of former 'industrial' uses are also evident in a handful of locations throughout the area. Negative Factors identified include inappropriate modern redevelopment and poor quality commercial frontages intruding into the streetscene and busy traffic along High Street. Traffic volumes along the High Street resulted in traffic calming measures being installed in the 1990s. These measures include raised tables at junctions and speed bumps which unfortunately increase the prominence of the highway.
- 12.3.11 Ferry Lane Conservation Area is an important historic river crossing that retains a medieval street pattern. There are also good examples of later development off main roads (e.g. of Thrift's Walk). Negative factors identified include traffic along the High Street and the erosion of historic

character, particularly along the High Street, by inappropriate development. The lack of townscape quality due to some redevelopment schemes is the main reason for the divided Conservation Areas.

**Flood risk**

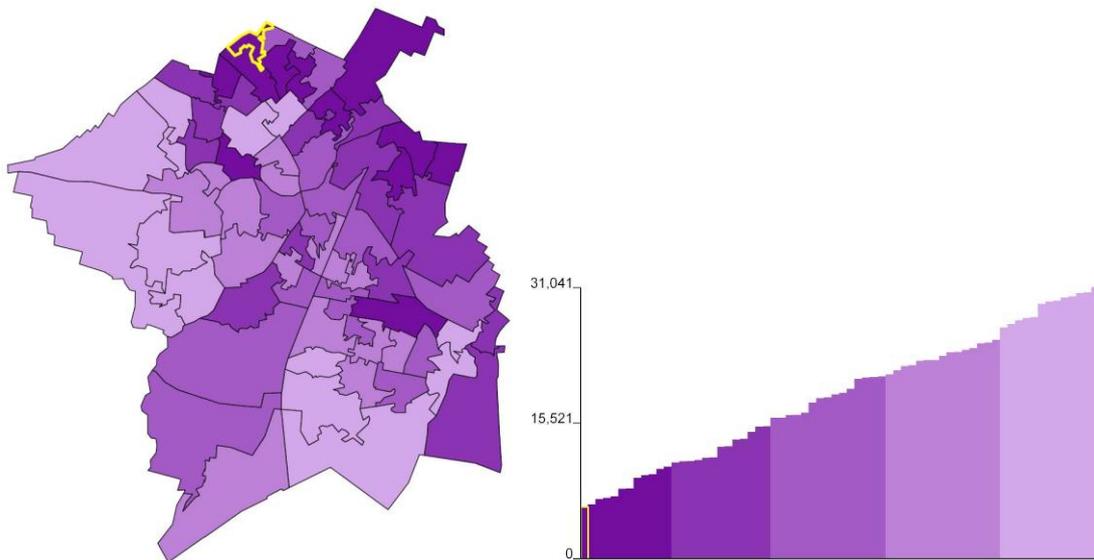
12.3.12 The Cambridgeshire Strategic Surface Water Management Plan (2011) identified eleven ‘wetspots’ within Cambridge (by a process combining modelling with the historical database), which were then scored using a multi criteria analysis (MCA) method by which the impact of flooding on a wide range of receptors can be evaluated. The MCA showed the highest ranked wetspot to be the King’s Hedges / Arbury area, whilst North Chesterton ranked third highest and South Chesterton fifth highest. Management options for King’s Hedges / Arbury were examined, with the conclusion that there is a need for:

- Increased maintenance of ordinary watercourses and surface water drains (i.e. road gullies); and
- The uptake of engineering options including attenuation features, such as swales, basins and wetlands; and source control elements such as permeable paving and rain gardens;

**Deprivation**

12.3.13 The worst performing ‘Super Output Area’ in Cambridge, in terms of the overall Index of Multiple Deprivation, is located on the northern extent of King’s Hedge’s ward (highlighted within Figure 12-1). This SOA is ranked 5,942 out of 32,482 SOAs nationally (where the most deprived SOA is ranked 1). Adjacent to this SOA are also the second and fifth most deprived SOAs in the City. The sixth most deprived SOA in the City is also located within the Northern Area (at its eastern extent).

**Figure 12-1: National rank of Multiple Deprivation for Super Output Areas in Cambridge**



**12.4 What would the situation be without the Plan?**

12.4.1 The future baseline will be influenced considerably by development within the North Cambridge: Huntingdon Road / Histon Road (the National Institute of Agricultural Botany (NIAB 1) site) and Northern Fringe East ‘areas of major change’.

- 12.4.2 Following allocation in the Local Plan (2006), planning permission was granted for the NIAB 1 site in 2010 subject to a legal agreement. The frontage area has a separate permission and construction began in spring 2010.
- 12.4.3 The NIAB 1 planning permission includes a new Local Centre that will serve the new population and also the surrounding existing population. It is also understood that a high quality Sustainable Drainage (SuDS) scheme will be implemented. More generally, however, it is not clear precisely how development will affect the wider area (e.g. as a result of the provision of accessible open space). It is notable that this development site is not adjacent to areas that are currently suffering from problems of deprivation.
- 12.4.4 In terms of the Northern Fringe East, no further progress has been made as yet. The site will be taken forward through the review of the Plan and will focus on employment led uses around the Chesterton Station development.
- 12.4.5 It is also important to note that baseline conditions within the North Cambridge area could (and probably will) be influenced by adjacent development within South Cambs District (i.e. the NIAB 2 area and at the Orchard Park site).

## **12.5 What are the key issues and opportunities?**

- 12.5.1 Within the northern area of Cambridge, there is a need to:
- 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

## **12.6 Are there any data gaps?**

- Evidence of sustainability issues at this scale is limited, and so it will be important that stakeholders with a strategic understanding of how issues vary across the City at this scale contribute through the consultation on this report
- This section has considered an overview of the built and natural character but there is always room for further evidence to inform our understanding of this functional area

## 13 SOUTH CAMBRIDGE

### 13.1 Introduction

13.1.1 This Chapter gives consideration to the policy context, the baseline situation and the issues and opportunities in relation to the South Cambridge area.<sup>116</sup> It does not seek to replicate spatially specific information presented under the 'thematic' chapter headings. Rather, it seeks to A) present a high-level 'impression' of the area, so that it becomes easier to interpret the spatially specific implications of issues identified within the thematic chapters; and B) review and present information from a limited number of data-sources that provide a 'fine-grained' spatial understanding of sustainability issues.

### 13.2 What's the policy context?

13.2.1 Of the six major areas of change in and around Cambridge, the 'Southern Fringe' area is located within South Cambridge. The spatial strategy for the current Local Plan (2006) involved the removal of land in the Green Belt to facilitate an expansion of Addenbrooke's Hospital as a regional hospital and a centre of excellence for associated biomedical and biotechnology research and development activities, related higher education or research institutes. Also new residential communities on land removed from the Green Belt to the east and south of Trumpington associated with a new access road linking the hospital to Hauxton Road.

13.2.2 Policy 9/5 of the Local Plan (2006) identified the Cambridge 'Southern Fringe' as a major area of change and the non-statutory 'Southern Fringe Area Development Framework' was also approved in 2006. Subsequently, in 2008, the Cambridge Southern Fringes AAP was adopted by South Cambridgeshire DC. This refers to the part of Trumpington Meadows which falls partially within South Cambs. All the other developments in the Southern Fringe fall only within the City Council area.

13.2.3 Separate development sites within the Southern Fringe area include:

- Trumpington Meadows (1,200 homes, of which 557 within the City area);
- Glebe Farm (286 homes);
- Clay Farm (2,217 homes);
- Addenbrooke's Hospital and Biomedical campus redevelopment; and
- Bell School (347 homes and 110 student beds).

13.2.4 Landscape, biodiversity and drainage water features are important considerations for the Cambridge Southern Fringe. The Cambridge Open Space and Recreation Strategy (2011) highlights that, throughout the Trumpington Meadows development, there will be 'green fingers' – areas of open space that extend into the development from the arable fields to the south and country park to the west - and a new riverside community park (Country Park) is to be provided along the River Cam extending north and south of the M11 motorway.

13.2.5 The Open Space and Recreation Strategy (2011) also highlights that the Clay Farm site is an important gateway to Cambridge and will form a new edge to the City. Landscape and open space are key elements of overall character of the proposed development, with the existing trees, plantations, hedges, Hobson's Brook and associated ditches characterising the development. A green corridor will provide the transition between the urban fabric and the open countryside to the south, and remain in the Green Belt. A transition is proposed within this corridor from formal recreation/open space to informal open space (including wet/dry balancing ponds, a permanent

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<sup>116</sup> This includes Cherry Hinton, Queen Edith's and Trumpington wards

wetland feature, informal species rich grassland and tree planting) further south to merge with the countryside character beyond. .

- 13.2.6 The Addenbrookes site is allocated for enhancements to Addenbrooke’s Hospital as part of the creation of a wider Cambridge Biomedical Campus. Expansion will be supported by improvements to transport infrastructure on the south side of the City including high quality public transport. As highlighted by the Cambridge Open Space and Recreation Strategy (2011), the site is set against the backdrop of the existing hospital, which appears as a mass of institutional buildings with minimal landscaping. Long distance views of the site are evident from the Gog Magog Down to the south. The Addenbrooke’s site has a number of proposed areas of public realm within it and provides scope for informal areas for relaxation. The site links with the wider City and the surrounding countryside via strategic footpath and cycleway routes. As with Bell School and Glebe Farm, smaller open spaces will contribute to the high-quality sustainable environment being created in the Southern Fringe.

**13.3 What’s the baseline situation?<sup>117</sup>**

- 13.3.1 The South Cambridge area contains the wards of Trumpington, Queen Ediths and Cherry Hinton. This section firstly presents an overview of the built and natural character of these wards, with information drawn primarily from the Cambridge Open Space and Recreation Strategy 2011 and various Conservation Area Appraisal documents that have been prepared. Secondly, this section draws on data relating to two specific issues - flood risk and deprivation - reflecting the fact that data-sets are available that enable a relatively fine-grained spatial understanding of the issues to be established.

**Trumpington**

- 13.3.2 Trumpington Ward is varied in character with older terraced housing situated closest to the City Centre, larger detached housing and private schools dominating the eastern side of Trumpington Road between the Brooklands Avenue junction and the village of Trumpington. The western side of Trumpington Road contains fields used for sport, recreation and agriculture, which run down to the River Cam. The nucleus of Trumpington village contains both Anstey and Trumpington Halls and established houses and cottages. To the east of the village centre, the area predominantly consists of post-war housing.

- 13.3.3 In terms of open space, there is 11.58 hectares Protected Open Space hectares per 1,000 population (15.4% of which is publicly accessible). Although, a significant proportion of the open space in the ward is not publicly accessible, many of the private Protected Open Spaces can be viewed from the streetscene and contribute to the greenness of the ward. Many of the open spaces to the west of Trumpington Road are vital to the setting of the City and the quality of the Cambridge Green Belt. The ward has a good mix of different types of Protected Open Space. Many of the sites contribute to the green corridor of open spaces which runs through from the Clay Farm site up to Lammas Land and the green corridor running down from Paradise Local Nature Reserve through Grantchester Meadows along the River Cam.

- 13.3.4 Located at the northern extent of Trumpington Ward are the designated Conservation Areas of Southacre, Brooklands Avenue and Trumpington. The ‘Central’ Conservation Area also falls partially within the South Cambridge Area. The following are brief summaries of key points raised within respective Conservation Area Appraisals:

- The **Southacre** area is an area surrounding Southacre Park with clearly defined boundaries on all sides (to the north by Vicar’s Brook and Coe Fen, to the west by the River Cam and the river flood plain, to the south by the Leys School Playing Field / Cambridge Lakes golf and football ground, and to the east by Trumpington Road). The special character of this area relates to the deliberate laying out as large houses in larger landscaped plots. An aerial

<sup>117</sup> Information taken primarily from the Cambridge Open Space and Recreation Strategy 2011

view of the area also demonstrates how markedly it stands out from its environs as being more heavily wooded and green. Despite the high density of traffic along the Trumpington Road boundary, the area itself is relatively quiet with the only through-traffic consisting of cyclists and pedestrians.

- The **Brooklands Avenue** area forms a southward extension of the existing Central Conservation Area. Located on Brooklands Avenue itself is found the Grade II listed Brooklands House, whilst other important features include avenues of trees, tree belts, individual trees and historic walls and railings. The area as a whole forms part of a green corridor which links the City to the countryside immediately to the south, a corridor which includes the University Botanic Garden. The parking of cars is identified as one of the issues to be addressed within the Conservation Area.
- **Trumpington** is described as retaining a 'village' character, though now enclosed within the City of Cambridge. It is essentially separated from other areas of the City by landscaping and a lack of suburban sprawl. It maintains its historic context with the link between the manors and the land retained. Heavy traffic on the High Street is identified as an issue to be addressed.

### Queen Ediths

- 13.3.5 Apart from the presence of Addenbrooke's, Homerton College and a number of state and private schools, Queen Edith's ward is predominantly residential in nature, with housing of a range of ages and types. The northern part of the ward is more densely developed, with areas adjacent to Hills Road and south of Queen Edith's Way having larger houses set in more spacious gardens.
- 13.3.6 There is 6.89 hectares Protected Open Space hectares per 1,000 population (49.8% of which is publicly accessible). The western portion of the ward, in particular, is dominated by open spaces in private use. The southern boundary includes land within the Cambridge Green Belt (which forms part of the setting of the City). It is noted that the ongoing development of Addenbrooke's will involve the delivery of open spaces for use by patients, visitors and staff.

### Cherry Hinton

- 13.3.7 The ward has a mix of housing types and land uses, with industrial uses located on the northern edge of the ward adjacent to Cambridge Airport and office and research and development uses on Fulbourn Road. The rest of the ward predominantly consists of 20th century housing, with the original village core still evident along the High Street. This ward is bounded by a range of open spaces to the north and west, which form part of a green corridor running through to adjacent Abbey, Coleridge and Romsey wards. To the south and east, the Cambridge Green Belt bounds the built-up area, with a number of sites of local and national nature conservation importance forming the edge of the built-up area of the City.
- 13.3.8 Within the Ward there is a good range of open spaces, including the parkland of Cherry Hinton Hall, sports provision within recreation grounds, high quality allotment provision and a range of natural and semi-natural green spaces, which form a strong green corridor. However, many of the natural and semi-natural green spaces are not well-managed. Whilst a balance should be sought between access and biodiversity, on some of the sites, selfset trees are taking over, reducing the biodiversity of the scrubland, and the sites adjacent to the lakes are suffering from poor quality maintenance and anti-social behaviour. Overall, there is 7.74 hectares Protected Open Space hectares per 1,000 population: (57.9% of which is publicly accessible).

### Flood risk

- 13.3.9 The Cambridgeshire Strategic Surface Water Management Plan (2011) identified eleven 'wetspots' within Cambridge Cit (by a process combining modelling with the historical database), which were then scored using a multi criteria analysis (MCA) method by which the impact of

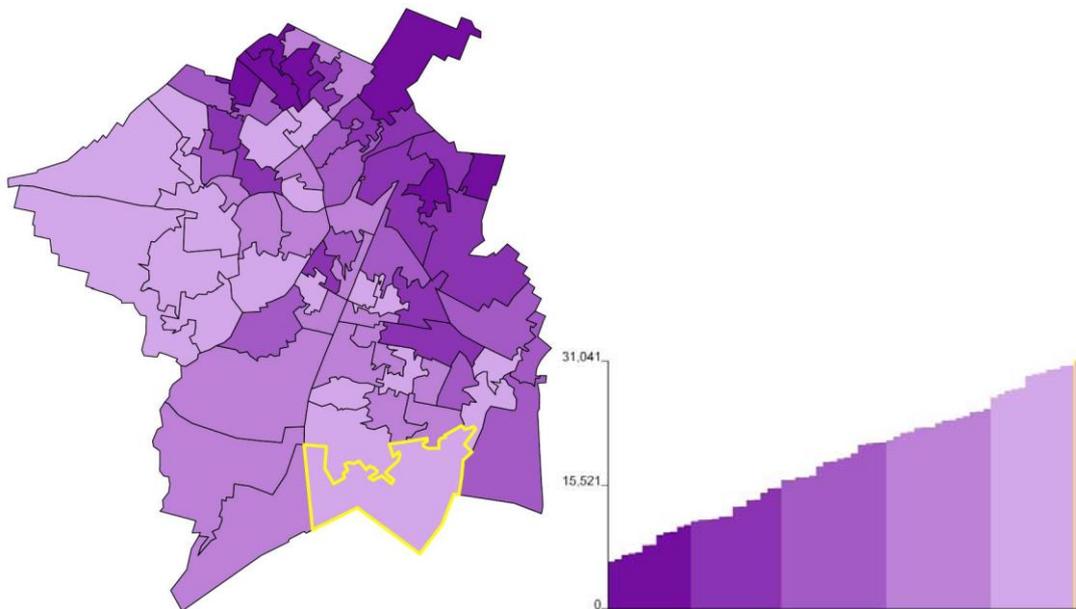
flooding on a wide range of receptors can be evaluated. The MCA showed the second highest ranked wetspot to be the Cherry Hinton area. Management options for Cherry Hinton were then examined, with the conclusion that there is a need for:

- Increased maintenance of ordinary watercourses and surface water drains (i.e. road gullies); and
- The uptake of engineering options including attenuation features, such as swales, basins and wetlands; and source control elements such as permeable paving and rain gardens.

**Deprivation**

13.3.10 The best performing ‘Super Output Area’ in Cambridge, in terms of the overall Index of Multiple Deprivation, is located at the southern extent of Queen Edith’s ward (see Figure 13-1). This SOA is ranked 31,041 out of 32,482 SOAs nationally. The worst performing SOA in the southern area is located at the northern extent of Trumpington Ward, adjacent to the City Centre. This SOA is the 20th most deprived in the City, and is ranked 12,815 nationally.

**Figure 13-1: National rank of Multiple Deprivation for Super Output Areas in Cambridge**



**13.4 What would the situation be without the Plan?**

13.4.1 The future baseline will be influenced considerably by development within the Cambridge: Southern Fringes ‘area of major change’. Following allocation in the Local Plan (2006) and the Cambridge Southern Fringes AAP, Bell School received planning permission in 2008 (subject to certain obligations); Trumpington Meadows and the enhancements to Addenbrookes Hospital were granted planning permission in 2009; and both Clay Farm and Glebe Farm were granted planning permission in 2010. It is expected that all development will contribute to the ongoing vitality of this part of Cambridge. For example, the Cambridge Open Space and Recreation Strategy 2011 suggests that the residential sites at Glebe Farm, Clay Farm and Trumpington Meadows will provide open space that will benefit nearby residents of Trumpington ward.

**13.5 What are the key issues and opportunities?**

13.5.1 Within the southern area of Cambridge, there is a need to:

- 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

**13.6 Are there any data gaps?**

- Evidence of sustainability issues at this scale is limited, and so it will be important that stakeholders with a strategic understanding of how issues vary across the City at this scale contribute through the consultation on this report
- This section has considered an overview of the built and natural character but there is always room for further evidence to inform our understanding of this functional area

## 14 EAST CAMBRIDGE

### 14.1 Introduction

14.1.1 This Chapter gives consideration to the policy context, the baseline situation and the issues and opportunities in relation to the East Cambridge area.<sup>118</sup> It does not seek to replicate spatially specific information presented under the ‘thematic’ chapter headings. Rather, it seeks to a) present a high-level ‘impression’ of the area, so that it becomes easier to interpret the spatially specific implications of issues identified within the thematic chapters; and b) review and present information from a limited number of data-sources that provide a ‘fine-grained’ spatial understanding of sustainability issues.

### 14.2 What’s the policy context?

14.2.1 The spatial strategy for the 2006 Local Plan included an area of major change in East Cambridge.

14.2.2 The Cambridge East Area Action Plan (AAP) was adopted jointly by the Council and South Cambridgeshire District Council in 2008. The AAP identified the site for a new urban quarter of approximately 10,000 to 12,000 dwellings and associated infrastructure. Most of this site is unlikely to come forward before 2031 as the airport operators, Marshalls, have decided not to relocate the airfield in the immediate future. However, some development is possible on the edges of the airfield, North of Cherry Hinton and North of Newmarket Road (which is within South Cambridgeshire District Council) with the Airport remaining on site. Within the City Council area the only area that is likely to come forward is North of Cherry Hinton.

14.2.3 Key issues highlighted within the AAP include the need to:

- Enhance the special character of the City and its setting and pay proper regard to the need to maintain the penetration of the countryside into the heart of the City provided by the Teversham green corridor which links with Coldham’s Common;
- Develop a Country Park to the east of Airport Way 119 as well as strategic routes connecting green infrastructure in the City with the surrounding districts and key projects such as Wicken Fen Vision. An urban park is also proposed on the existing Park and Ride Site, along with a range of smaller open spaces and allotments. There is a particular need to minimise and carefully plan the provision of roads crossing the main green corridor.
- Ensure development is connected to the rest of the City by high quality public transport and non-motorised modes of transport, achieving a modal shift of no more than 40% of trips by car; at least 35% by public transport; and at least 25% by foot and cycle;
- Ensure strategically placed landmark buildings and public art to give a sense of place; and
- Allow only the following types of employment development:
  - Offices (or similar) providing an essential service for Cambridge as a local or sub-regional centre;
  - High technology and related industries primarily concerned with research and development, which show a special need to be located close to the universities or other established research facilities; and
  - Educational uses and research establishments, required in the national interest, to be located close to existing major establishments in related fields (such as the universities, the teaching hospital, or private research establishments); and

<sup>118</sup> This includes Abbey, Coleridge, Petersfield and Romsey wards

<sup>119</sup> The Country park would have been on the airport.

- Other small-scale industries which contribute to a greater range of local employment opportunities, particularly if they contributes to the development of locally-based skills or expertise.

### 14.3 What's the baseline situation?<sup>120</sup>

14.3.1 The East Cambridge area contains the wards of Abbey, Coleridge, Petersfield and Romsey. This section firstly presents an overview of the built and natural character of these wards, with information drawn primarily from the Cambridge Open Space and Recreation Strategy 2011. Secondly, this section draws on data relating to one specific issue - deprivation - reflecting the fact that data-sets are available that enable a relatively fine-grained spatial understanding to be established.

#### Abbey

14.3.2 The ward has a mix of housing types and land uses, with much of the western part of the ward made up of retail and industrial uses along Newmarket Road.<sup>121</sup> The area between the river and Newmarket Road up to Stanley Road is predominantly 19th century housing, with a mix of 20th and 21st century housing up to the railway. The 20th century housing estate areas in the ward consists of a mix of flats, terraced and semi-detached housing. Some of the flatted blocks have little or no access to gardens.

14.3.3 The ward is bounded by commons and other open spaces to the north and the south-east. To the north, Stourbridge Common and Ditton Meadows are contiguous, providing an extensive green corridor, which runs adjacent to the River Cam into the heart of the City. Cambridge Airport forms the south-eastern edge of the ward with the open areas of closely cut grassland adjacent to the runway linking the notional countryside with Coldham's Common and the former gravel quarries and Cherry Hinton Hall through to the chalklands to the south.

14.3.4 Overall, there is 12.4 hectares Protected Open Space hectares per 1,000 population (88.7% of which is publicly accessible). In comparison to the majority of the City, Abbey ward contains a good mix of publicly accessible open spaces. However, the quality of the open spaces is very varied.

#### Coleridge

14.3.5 Coleridge has a mix of housing types and land uses, with leisure and industrial uses located on the western edge of the ward and some retail and industrial uses located on Cherry Hinton Road at the southern edge of the ward. The 19th and 20th century housing development in the ward has a small number of flatted blocks and areas of terraced housing mingled with streets of semi-detached housing.

14.3.6 Overall, there is 5.87 hectares Protected Open Space hectares per 1,000 population (36.2% of which is publicly accessible). As the largest and most varied, publicly accessible Protected Open Space in the ward, Coleridge Recreation Ground offers a vitally important resource to local people.

#### Petersfield

14.3.7 This is a compact high-density residential neighbourhoods with strong identity and sense of place. Lying to the south-east of the City Centre, this ward is home to the Cambridge campus of Anglia Ruskin University, retail and employment uses in addition to a considerable amount of residential development. Much of the housing provision consists of older terraced housing, with

<sup>120</sup> Information taken primarily from the Cambridge Open Space and Recreation Strategy 2011

<sup>121</sup> Following the Cluster study the retail warehouse parks along Newmarket Rd should be considered as part of the City Centre.

some pockets of 20th century development. Most gardens are relatively small and narrow and there is little in the way of street trees given the densely urban nature of the area.

14.3.8 Mill Road West District Centre falls within Petersfield, and on the other side of the railway bridge is Mill Road East within Romsey ward. Mill Road has a reputation for its diverse range of shops and other town centre uses, the majority of which are local independent traders. In addition to shops there are a large number of restaurants, cafés and takeaways. There is also an antique market at Hope Street, which falls within Mill Road East District Centre.

14.3.9 Although there is a range of publicly accessible open spaces close to the ward including Parker's Piece and Coldham's Common, the amount of informal open space in the ward is low (1.53 hectares per 1,000 population, 65.3% of which is publicly accessible) given the local population density and natural and semi-natural green space is restricted to Mill Road Cemetery.

### **Romsey**

14.3.10 Densely built-up, predominantly residential environment to the south-east of the City Centre. Much of the housing provision consists of terraced housing, although there are pockets of semi-detached housing in the northern part of the ward. Most gardens are relatively small and narrow and there is little in the way of street trees given the densely urban nature of the area.

14.3.11 The amount of open space in the ward is low (1.18 hectares Protected Open Space per 1,000 population, 36% of which is publicly accessible) given the local population density and the amount of natural and semi-natural green space is very low and is restricted to tree belts. It is suggested that a pedestrian friendly access to the green space adjoining Cherry Hinton Brook and Coldhams Common should be considered.

### **Deprivation**

14.3.12 The 3<sup>rd</sup>, 4<sup>th</sup> and 10<sup>th</sup> 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. Other parts of the Eastern Area are also relatively deprived, although closer to the City Centre are located some more affluent areas.

## **14.4 What would the situation be without the Plan?**

14.4.1 For Cambridge East, it is now understood that most of this site is unlikely to come forward before 2031 as the airport operators have decided not to relocate the airfield in the immediate future. However, some development is possible on the edges of the airfield north of Cherry Hinton and north of Newmarket Road.

## **14.5 What are the key issues and opportunities?**

14.5.1 Within the eastern area of Cambridge, there is a need to:

- 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

## **14.6 Are there any data gaps?**

- Evidence of sustainability issues at this scale is limited, and so it will be important that stakeholders with a strategic understanding of how issues vary across the City at this scale contribute through the consultation on this report

- This section has considered an overview of the built and natural character but there is always room for further evidence to inform our understanding of this functional area

## 15 WEST CAMBRIDGE

### 15.1 Introduction

15.1.1 This Chapter gives consideration to the policy context, the baseline situation and the issues and opportunities in relation to the West Cambridge area.<sup>122</sup> It does not seek to replicate spatially specific information presented under the ‘thematic’ chapter headings. Rather, it seeks to a) present a high-level ‘impression’ of the area, so that it becomes easier to interpret the spatially specific implications of issues identified within the thematic chapters; and b) review and present information from a limited number of data-sources that provide a ‘fine-grained’ spatial understanding of sustainability issues

### 15.2 What’s the policy context?

15.2.1 Of the six major areas of change in and around Cambridge the ‘Madingley Road/Huntingdon Road’ area is located within West Cambridge. The spatial strategy in the current Local Plan (2006) states that the University of Cambridge will continue to develop its West Cambridge site for teaching, academic research, sports and residential facilities, as well as further expansion of commercial research facilities in line with the existing outline planning permission and associated Masterplan. When the need for more land can be established, further Cambridge University-related development will be allowed in north-west Cambridge between Madingley Road and Huntingdon Road. Land is also identified for a new residential community between Huntingdon Road and Histon Road (this is referred to in Chapter 12 on North Cambridge).

15.2.2 The AAP Objectives are as follows:

- To contribute to meeting the long-term development needs of Cambridge University;
- To create a sustainable community;
- To make the best use of energy and other natural resources, to be built as an exemplar of sustainable living with low carbon and greenhouse gas emissions and be able to accommodate the impacts of climate change;
- To create a satisfactory mix of uses, taking into account: i. Identified University development needs; and ii. The need for affordable housing for University and College staff;
- To secure a wide range of housing types and tenures;
- To secure high quality development of both built form and open spaces;
- To create a community which respects and links with adjoining communities;
- To achieve a modal split of no more than 40% of trips to work by car (excluding car passengers) and to maximise walking, cycling and public transport use;
- To maintain the purposes of the Green Belt;
- To provide an appropriate landscape setting and high quality edge treatment for Cambridge;
- To provide appropriate separation between Cambridge and the village of Girton to maintain village character and identity;
- To provide standards for infrastructure provision including renewable energy, open space, car and cycle parking, sewerage and surface water drainage;
- To provide an appropriate level of community services and facilities to serve the development satisfactorily;

<sup>122</sup> This includes Castle and Newnham wards

- To determine appropriate phasing of development taking into account that development should only proceed when the University can prove the need for it;
- To secure the infrastructure needs of the development, including green infrastructure; and
- To protect special geological interest, existing wildlife and wildlife corridors and secure a net increase in biodiversity.

15.2.3 It is notable that transport modelling for North West Cambridge has shown that an 8% reduction in the modal share for journeys to work by car drivers (reducing the modal share from 45 percent to 37 percent) is achievable. In particular, there is a need for:

- High quality, high frequency public transport to key destinations, including the City Centre and Cambridge Railway Station;
- High quality cycle provision, including safe and convenient routes and a large amount of high quality cycle parking;
- Car parking provision below maximum standards as much as possible, combined with controls on on-street parking across the development site;
- Car sharing facilities within the development, through the use of car clubs or other similar measures; and
- Employee travel plans and residential travel planning, including personal journey to work travel planning for residents of the development.

### 15.3 What's the baseline situation?<sup>123</sup>

15.3.1 The West Cambridge area includes the wards of Castle and Newnham. This section firstly presents an overview of the built and natural character of these wards, with information drawn primarily from the Cambridge Open Space and Recreation Strategy 2011. Secondly, this section draws on data relating to a specific issue - deprivation - reflecting the fact that data-sets are available that enable a relatively fine-grained spatial understanding to be established.

#### Castle

15.3.2 Situated to the north-west of the City Centre, Castle ward is bisected by Huntingdon Road. Between the southwestern side of Huntingdon Road and Madingley Road, College uses dominate, with Colleges such as Fitzwilliam, Churchill and Murray Edwards having significant presences within the streetscene. All the Colleges within this area have established and well-maintained gardens, whilst some Colleges also have extensive playing fields within the ward. Residential uses within this area predominantly consist of large detached houses with large gardens. To the north-east of Huntingdon Road, terraced housing dominates, with limited pockets of publicly accessible open space. Castle Mound, a Scheduled Ancient Monument, provides an opportunity to view the City's skyline and allows people to appreciate the historic context of the City.

15.3.3 In terms of open space, there is 10.1 hectares Protected Open Space per 1,000 population, but only 7% of this is publicly accessible. Although some residents of the ward will be associated with the Colleges, the level of public access to Protected Open Spaces is considered by the Open Spaces and Recreation Strategy (2011) to be a major challenge. In particular, those in the north of the ward, have very limited access, with Histon Road Recreation Ground providing the most sizable piece of public open space in the area.

<sup>123</sup> Information taken primarily from the Cambridge Open Space and Recreation Strategy 2011

15.3.4 Located within Castle Ward are the designated Conservation Areas of West Cambridge (shared with Newnham Ward), Conduit Head Road and Storey's way. The 'Central' Conservation Area also falls partially within the West Cambridge Area. The following is a brief summary of key points raised within respective Conservation Area Appraisal documents:

- **The West Cambridge Conservation** area covers a large region to the west of the City Centre, currently centred on the long north-south 'spine' of Grange Road, with Madingley Road to the north and Barton Road to the south. The Conservation Area is notable for its spacious residential streets, lined with large mainly detached houses of the late 19th or early 20th centuries. Many of these are built in red brick with occasional tile hanging in the Arts and Crafts style then popular and some are exceptional architecturally. Old Newnham, to the south of the Conservation Area, has a number of older buildings on smaller scale plots, which are also important to its character. The domestic scale of these buildings contrasts with the much larger University buildings. Despite the differences in form, scale, and materials between the original residential properties and the much larger University and College buildings, the very high quality of nearly all of the structures means that the area retains a spatial cohesion. There are virtually no commercial buildings in the Conservation Area, the predominant uses being either residential or educational. Most importantly, an attractive setting is provided for these buildings by the many large green spaces, hedges and areas of woodland, which remain in the Conservation Area. The College playing fields, adjacent Green Belt and the open spaces are important contributions to the character of the Conservation Area. It is noted that, with some exceptions, the public realm (street surfaces, pavements, street lighting, signage and street furniture) is adequately maintained and low key in its impact. A key issue is seen to be the maintenance of an appropriate social mix given that the student accommodation element as a proportion of the whole has seen a substantial increase over the past decade.
- **Conduit Head Road** is located approximately one and a half miles to the north west of Cambridge City Centre. Situated along the principal route of Madingley Road (A1303), the area is located within a semi-rural landscape. The Conduit Head Road Conservation Area is of special interest due to its high quality, progressive 20th century architecture and its leafy green, secluded character. The area developed in a piecemeal fashion, displaying a variety of different architectural styles. A number of Modernist houses, built in the 1930s and 1960s, are of particular note.
- **Storey's Way** lies about a mile to the north west of Cambridge city centre in Cambridgeshire in a semi-rural setting on the urban edge. Storey's Way is an early twentieth century suburban linear layout with houses stepped back from the road at a uniform distance with large front and rear gardens. It benefits from large mature trees, which lessen the impression of 'urbanity' and present a compact, semi-rural 'face'. An exception to this domestic character is the discrete space of the Ascension Burial Ground, which reinforces the landscaped feel. The main issue for this Conservation Area is provided by the threat of redevelopment to houses on their large plots. Also, many of the trees are at maturity, or approaching this stage. It is suggested that the unique character could be easily eroded if any new building fails to recognise the contribution the trees, open spaces and gardens make to the area.

### Newnham

15.3.5 Situated to the west of the City Centre, Newnham is characterised by significant levels of open space, much of it playing fields for the Colleges. The northern part of the ward has a number of spacious streets inhabited by large mainly detached houses and University and College buildings. The southern part of the ward includes the Newnham Croft area where many of the streets are made up of terraced housing, with some larger houses on Barton and Millington Roads. The ward lies adjacent to the countryside, with areas of Green Belt running through and around the built-up area. Many of the open spaces are vital to the setting of the City and the quality of the Cambridge Green Belt.

15.3.6 The Backs with their interplay of grand College buildings and the well-treed landscape form Cambridge’s most famous landscaped area. To the south, the semi-natural areas of Sheep’s Green and Coe Fen have a totally different character, but provide an important wildlife and recreational resource and contribute significantly to the setting of the ward and its buildings between the historic core and the urban edge of the City. In terms of open space, although the ward is host to many Protected Open Spaces (14.9 hectares per 1,000 population), only approximately 25% of open spaces are publicly accessible.

15.3.7 The Ward contains the Conservation Area of **Newnham Croft**, which is described as having the nature of a separate village, with its own shops, church, school and inns. The peculiar quality of Newnham Croft lies in the close juxtaposition of the urban and the rural. High quality shops lie one street away from snipe meadows, kingfishers and dense woods. Most of the buildings are seen against a background of big trees, many of which are left over from vanished orchards or the gardens of big houses, whilst others have sprung up on abandoned meadows and at the bottoms of gardens.

**Deprivation**

15.3.8 The Western Area of Cambridge generally performs very well in terms of multiple deprivation, with the 2nd, 4th and 5th least deprived ‘Super Output Areas’ in Cambridge all located here. The 2nd best performing SOA in Cambridge ranks 30,447 out of 32,482 SOAs nationally.

**15.4 What would the situation be without the Plan?**

15.4.1 For the North West Cambridge ‘area of major change’ an outline application for the development of up to 3,000 dwellings, 2,000 student units and academic and commercial space was received and validated in September 2011. The application is likely to be determined in the near future, subject to the completion of a Section 106 agreement. Development allocated through the North West Cambridge Area will have limited benefits for the wider area. Having said this, the Cambridge Open Space and Recreation Strategy 2011 suggests that nearby residents of Castle ward will make use of the range of open spaces to be offered at both NIAB and North West Cambridge; and that both sites will allow better access to the countryside beyond. It is also understood that a potential new medium sized supermarket in the Local Centre in NW Cambridge would have benefits for residents in the local area.

**15.5 What are the key issues and opportunities?**

15.5.1 Within the western area of Cambridge, there is a need to:

- 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

**15.6 Are there any data gaps?**

- Evidence of sustainability issues at this scale is limited, and so it will be important that stakeholders with a strategic understanding of how issues vary across the City at this scale contribute through the consultation on this report
- This section has considered an overview of the built and natural character but there is always room for further evidence to inform our understanding of this functional area

## 16 APPROACH TO SITE APPRAISAL

- 16.1.1 The Plan will include sites allocated for specific uses. Each site option will be subject to a Sustainability Appraisal (SA) in order to identify and evaluate its potential impacts. The SA will be used to help decision making on whether a site should be taken forward as an allocation in the Local Plan. It will also be used to identify suitable mitigation measures for addressing any adverse effects and these will be reflected in Plan policies where appropriate.
- 16.1.2 Advice from the Planning Advisory Service<sup>124</sup> suggests that site options can be appraised using three different types of criteria:
- **Exclusionary criteria** – e.g. flood risk areas, publicly accessible green space and others areas valued locally. Sites which do not satisfy these criteria should be excluded from the mix on the basis that they are not ‘reasonable’ alternatives.
  - **Discretionary criteria** – e.g. relating to public rights of way, agricultural land, and local nature conservation designations etc. These criteria might not necessarily lead to the exclusion of a site but would certainly be important from a sustainability perspective and should influence the decision as to whether or not a site is taken forward and, if it is, any measures that must be implemented in order to minimise the impacts of development on the site.
  - **Deliverability criteria** – e.g. landownership, access, planning history, size etc. all of which may have a bearing on whether or not the site is deliverable as a location for development.
- 16.1.3 These criteria can be set out in a table or proforma (a draft proforma is included below) which can then be completed for each site. This will help to ensure a rigorous, consistent and transparent approach to appraising site options. Depending on the circumstances, alternative uses for particular sites may also be considered (e.g. for housing, employment, retail, community facilities, mixed use etc.) and, if so, the proforma can be adapted to include an appraisal of different uses.
- 16.1.4 A dedicated site appraisal proforma will be prepared which includes the different types of criteria set out above. In developing the criteria, the sustainability topics in this report will be taken into account to ensure that sustainability considerations are fully reflected in the site appraisal process. Furthermore, the proforma may include Cambridge specific threshold based criteria relating to the distance from the site to, for example, local shops or public transport connections. Employing quantitative criteria such as these can introduce further rigour and transparency to the process.

<sup>124</sup> PAS (2010). Sustainability Appraisal: Advice Note [online] available at: <http://www.pas.gov.uk/pas/aio/627078> (accessed 24 January 2012).

Site Name and summary details:		
Map	Site photo	Site size (Ha)
		Site owner:
		Current use:
		Proposed use:
<b>Accessibility to existing centres and services</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
How far is the site from Cambridge City Centre?	<b>R =</b> >1km <b>A =</b> 400 – 1km <b>G =</b> <400m; or allocation is greenspace.	
How far is the site from a District or Local centre?	<b>R =</b> >1km <b>A =</b> 400 – 1km <b>G =</b> <400m; or allocation is greenspace.	
How far is the nearest health centre or GP service?	<b>R =</b> >800m <b>A =</b> 400-800m <b>G =</b> <400m; or allocation is greenspace	
How far is the nearest secondary school?	<b>R =</b> >5km <b>A =</b> 2 - 5km <b>G =</b> <2km; or allocation is not housing.	
How far is the nearest primary school?	<b>R =</b> >800m <b>A =</b> 400 - 800m <b>G =</b> <400m; or allocation is not housing	
<b>Accessibility to outdoor facilities and green space</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
How far is the nearest outdoor sports facilities?	<b>R =</b> >3km <b>A =</b> 1 - 3km	

	<b>G</b> = <1km; or allocation is not housing	
How far is the nearest children’s play space (local)?	<b>A</b> = >400m from ‘local’ children’s play space <b>G</b> = <400m; or allocation is not housing	
How far is the nearest children’s play space (neighbourhood)?	<b>A</b> = >1200m from ‘neighbourhood’ children’s play space <b>G</b> = <1200m; or allocation is not housing	
How far is the nearest parks, open space or multifunctional greenspace (>2ha in size)?	<b>R</b> = >400m <b>G</b> = <400m; or allocation is not housing	
<b>Supporting Economic growth</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
How far is the nearest employment hub or industrial area?	<b>R</b> = > 5km <b>A</b> = 2 - 5 km <b>G</b> = <2km; or allocation is not for housing or employment	
Will allocation result in loss of employment space?	<b>R</b> = Allocation will lead to significant loss of onsite employment <b>A</b> = Allocation will lead to some loss of onsite employment <b>G</b> = Loss of employment space is not a problem	
Will allocation result in development in deprived areas?	<b>A</b> = Not within the 40% most deprived Super Output Areas within the borough, according to the Index of Multiple Deprivation, 2010. <b>G</b> = Within the 40% most deprived Super Output Areas within the borough; or allocation is greenspace.	
<b>Sustainable transport</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
How far is the nearest high quality public transport route?	<b>R</b> = >800m <b>A</b> = 400 - 800m <b>G</b> = <400m	
How far is the nearest train station?	<b>R</b> = >800m <b>A</b> = 400 - 800m	

	<b>G</b> = <400m	
How far is the nearest cycle route?	<b>R</b> = >800m <b>A</b> = 400 - 800m <b>G</b> = <400m	
<b>Air Quality</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Is the allocation within or near to an AQMA?	<b>R</b> = Within or adjacent to an AQMA <b>A</b> = <1km of an AQMA <b>G</b> = >1km of an AQMA; or allocation is greenspace	
<b>Protecting Groundwater</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Will allocation lead to development within a Source Protection Zone?	<b>A</b> = Within Source Protection Zone 1 <b>G</b> = Not within Source Protection Zone 1; or allocation is greenspace	
<b>Protecting to landscape, townscape and historic environment</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Will allocation impact upon a Scheduled Ancient Monument?	<b>R</b> = On a SAM OR Allocation will lead to development adjacent to a SAM with the potential for negative impacts <b>A</b> = Adjacent to a SAM that is less sensitive / not likely to be impacted <b>G</b> = Not on or adjacent to a SAM; or allocation is greenspace	
Will allocation impact upon a listed building?	<b>R</b> = Contains or is adjacent to a listed building and there is the potential for negative impacts. <b>A</b> = Contains or is adjacent to a listed building but there is not thought to be potential for negative impacts. <b>G</b> = Not on or adjacent to a listed building.	
Will allocation impact upon a historic park / garden?	<b>R</b> = Within or adjacent to a historic park / garden and there is the potential for negative impacts. <b>A</b> = Within or adjacent to a historic park / garden but	

	there is not the potential for negative impacts. <b>G</b> = Not on or adjacent to historic park / garden; or allocation is greenspace.	
Will allocation impact upon a Conservation Area?	<b>R</b> = Within or adjacent to a Conservation Area and there is the potential for negative impacts. <b>A</b> = Within or adjacent to a Conservation Area but there is no potential for negative impacts. <b>G</b> = Not within or adjacent to a Conservation Area	
Does the site make a major contribution to the setting, character, structure and the environmental quality of the City?	<b>R</b> = Site makes a major contribution to the setting, character, structure and the environmental quality of the City <b>A</b> = Site makes a minor contribution to the setting, character, structure and the environmental quality of the City <b>G</b> = Site does not make a contribution to the setting, character, structure and the environmental quality of the City	
<b>Flood Risk</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Is allocation within a flood zone?	<b>R</b> = Flood risk zone 3b <b>A</b> = Flood risk zone 2 or 3a <b>G</b> = Flood risk zone 1; or allocation is greenspace	
Is the site at risk from surface water flooding?	<b>R</b> = High risk <b>A</b> = Medium risk <b>G</b> = Low risk	
<b>Land Use</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Will the allocation lead to a loss of land within the Green Belt	<b>R</b> = Allocation will lead to the loss of land from the Green belt <b>A</b> = Allocation will lead to the partial loss (~50%) of land from the Green Belt <b>G</b> = Allocation will lead to no loss of land from the Green	

	<b>Belt</b>	
Will allocation lead to loss of high quality agricultural land?	<p><b>R</b> = Includes Grade 1 or 2 agricultural land</p> <p><b>A</b> = Includes Grade 3 agricultural land</p> <p><b>G</b> = Does not include 1, 2 or 3 agricultural land</p>	
Will allocation make use of previously developed land?	<p><b>R</b> = Does not include previously developed land</p> <p><b>A</b> = Partially within previously developed land</p> <p><b>G</b> = Entirely within previously developed land</p>	
Will the allocation fall within an area of contaminated land?	<p><b>R</b> = Does not include contaminated land</p> <p><b>A</b> = Partially within contaminated land</p> <p><b>G</b> = Entirely within contaminated land</p>	
Does the current site make a major contribution to the recreational resources of the City?	<p><b>R</b> = site makes a major contribution to the recreational resources of the City</p> <p><b>G</b> = site does not make a major contribution to the recreational resources of the City</p>	
Does the current site make a major contribution to the recreational resources of the local area?	<p><b>A</b> = Site makes a contribution to the recreational resources of the local area</p> <p><b>G</b> = Site does not make a contribution to the recreational resources of the local area</p>	
Would the allocation lead to a loss of community facilities	<p><b>R</b> = allocation would lead to a loss of community facilities</p> <p><b>G</b> = allocation would not lead to a loss of community facilities</p>	
<b>Biodiversity and Green Infrastructure</b>		
<b>Criteria</b>	<b>Performance</b>	<b>Comment</b>
Will allocation impact upon a Site of Special Scientific Interest (SSSI)?	<p><b>R</b> = Site is within 400m of an SSSI</p> <p><b>A</b> = Site is between 400 and 800 meters of an SSSI</p> <p><b>G</b> = Site is over 800m from an SSSI</p>	
Does the site contain any BAP priority species or habitats?	<p><b>R</b> = Site contains BAP priority species or habitats</p> <p><b>G</b> = Site does not contain BAP priority species or habitats</p>	

Will allocation impact upon a locally designated wildlife site?	<b>R</b> = Contains or is adjacent to an existing site <b>A</b> = Contains or is adjacent to a proposed site <b>G</b> = Does not contain and is not adjacent; or allocation is greenspace	
Will allocation impact upon an ecological corridor?	<b>R</b> = Within an ecological corridors <b>G</b> = Not within an ecological corridors; or allocation is greenspace	
Will allocation impact upon designated open space or undesignated space which meets the criteria in Policy 4/2 of the Local Plan (2006)?	<b>R</b> = Contains open space <b>G</b> = Does not contain open space; or allocation is greenspace	
Will allocation impact upon allotment space?	<b>R</b> = Contains allotment space <b>G</b> = Does not contain allotment space	
<b>Any other information not captured above?</b>		
<b>Site recommended to be taken forward and justification?</b>		
NB. In addition, any significant effects identified through the appraisal for each site should be reflected in mitigation measures expressed through plan policy		

**17 NEXT STEPS****17.1 Consultation on the Scoping Report**

17.1.1 Stage A in the SA process involved consultation on the scope of the SA. The consultation period lasted for five weeks (in line with the relevant regulations<sup>125</sup>) and during this time the Statutory Consultees, Cambridge County Council, South Cambridgeshire District Council and Cambridge City Ward Councillors (Annex II) were invited to comment on the report.

17.1.2 Following consultation on the Scoping Report, the comments received have been integrated into the report and are also detailed in Annex II. The Scoping Report can now be finalised and the next stage of the SA commence. The next stage involves identifying and evaluating the impacts of the Plan.

**17.2 SA of the Plan**

17.2.1 The framework and evidence base presented in this Scoping Report will provide the basis for undertaking the SA of the Plan. Other evidence (e.g. from studies undertaken by the Council) will also be drawn on where appropriate. In order to complete the appraisal, for each thematic topic and functional area we will ask:

- What will be the situation with the plan?
- How can we mitigate / enhance effects?
- How can we best monitor the plan's impacts?

17.2.2 In this way, the Plan will be comprehensively analysed in terms of its effect on different parts of Cambridge and the full range of sustainability issues.

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<sup>125</sup> The Environmental Assessment of Plans and Programmes Regulations 2004

## ANNEX I - INTEGRATION OF SA WITH OTHER ASSESSMENT AND PROOFING EXERCISES

This SA process has been designed to ensure that full consideration is given to equalities and health effects, therefore negating the need for stand-alone assessments to be undertaken. The SA process has also been designed in such a way to allow Habitats Regulations Assessment to be undertaken in parallel to the SA, and reported within the same document.

### Habitats Regulations Assessment / Appropriate Assessment (HRA / AA)

Our methodology is consistent with the requirements of the Planning and Compulsory Purchase Act 2004, the European Directive 2001/42/EC (the “SEA Directive”) and the Conservation (Natural Habitats, &c) (Amendment) (England and Wales) Regulations 2006 (Habitats Regulations).

### Equality Impact Assessment (EqIA) and Health Impact Assessment (HIA)

Methodologies promoted for stand-alone processes of EqIA and HIA tend to be closely comparable to the process set out in government guidance on SA. As a result, these assessment exercises can be relatively easily incorporated into the SA process.

The concept of integrating other assessments into the SA process is outlined in CLG guidance<sup>126</sup> and the new PPS12 adds further clarity, stating that: “Where authorities are required by law or encouraged by government policy to undertake assessments of their plans, such assessments should feed into and be summarised in the sustainability appraisal”.

Although SA can consider the full range of topics, the premise for integrating topic specific assessment exercises is to ensure that some topics receive explicit attention and prominence in the appraisal process. We have chosen the heading ‘Community and Wellbeing’ as one of the headings to structure the SA so that all issues relating to health and equalities can be given explicit attention within this Chapter.

Boxes 1 and 2 consider EqIA and HIA further.

#### Box 1: Equality Impact Assessment (EqIA)

Guidance on EqIA suggests a systematic process which is largely consistent with the SA process, but focuses on the needs of, and impacts on, specific groups and the distribution of impacts. The need for EqIA is driven by Section 149 of the Equality Act 2010 which sets out the general Equality Duties of public authorities and the defined ‘protected characteristics[1]’. The Mayor and the GLA also have an additional duty to promote equality of opportunity arising from the GLA Act 1999 (as amended).

Section 149 of the Equality Act 2010 replaces duties under the Race Relations Act, the Disability Discrimination Act 2005 as well as other domestic discrimination legislation. The Act includes a new single public sector equality duty (“the Duty”) which brings together the previous race, disability and gender duties.

The following are referred to as protected characteristics and are the grounds upon which discrimination is unlawful: age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; sexual orientation; and marriage and civil partnership (applicable only to the need to eliminate unlawful discrimination).

<sup>126</sup> CLG (2005) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, HMSO, Wetherby

**Box 2: Health Impact Assessment (HIA)**

Health Impact Assessment (HIA) is an approach that ensures decision making at all levels considers the potential impacts of decisions on health and health inequalities. It identifies actions that can enhance positive effects and reduce or eliminate negative effects. HIA is a relatively new tool, and although there is no single agreed national approach or methodology, the value of HIA is increasingly being recognised, both nationally and internationally.<sup>127</sup>

HIA has been successfully integrated into the statutory process of SA and SEA undertaken for regional, sub-regional and local planning policy. In these instances the health input into policies has been strengthened.

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<sup>127</sup> London Health Commission (no date). Health Impact Assessment [online] available at: <http://www.london.gov.uk/lhc/hia/> (accessed January 2012)

**ANNEX II - CONSULTATION RESPONSES**

Comment #	Respondent	Comment	Response to comment	References to the Final SA Scoping Report and further observations if necessary
1	<b>Natural England</b>	Further discussion should be included on the separate Habitats Regulations Assessment (HRA) process and the integration between the SA/SEA and HRA processes. For example, evidence gathered for the HRA on European sites can be fed into the SA process and the findings of the HRA can feed into the SA assessment.	Noted	Cambridge City Council will be carrying out screening for the Plan and will liaise with Natural England to determine the best time to do this.  Cambridge City Council have carried out HRA screening for previous SPDs, and there was no need to go to a full appropriate assessment. There are no European sites within Cambridge City, which would be directly affected. The Phase 2 Water Cycle Strategy provided an assessment of sites further away which could be affected by changes to the water environment as a consequence of development in Cambridge City and South Cambridgeshire. This study concluded that there would be no significant effect and effectively screened out the need for any further assessment.
2		We would advise further consideration be given to the protection and enhancement of soils and agricultural land as part of the assessment process.	Noted	
3		Should consider the inter-relationships between themes, e.g. a number of themes can have a significant influence on biodiversity, such as air quality, noise, water quality and resources.	Amendment	Amended 10.1.1
4		The contaminated land theme should include reference to biodiversity due to the impact that pollution could have on habitats and species and water quality due to potential for leaching of contaminants into water courses.	Amendment	Amended 3.2.17
5		We welcome reference to the local BAP and this should inform the assessment of impacts on biodiversity and to identify opportunities for	Amendment	Amended 10.3.6.

		enhancement. Similar reference should also be made to the Cambridgeshire Green Infrastructure Strategy in relation to the protection and enhancement of green infrastructure.		
6		We would also advise that consideration is given to Natural England’s ‘standards for accessible natural greenspace’ (ANGSt) provides a set of benchmarks, which should be used to ensure new and existing residential development has access to nature. More information can be found on Natural England’s publication, ‘Nature Nearby, Accessible Greenspace Guidance’ (March 2010)	Amendment	Amended 10.2.9
7		We would advise that exclusionary criteria should include statutorily designated sites, and ideally other designated sites of conservation interest	Noted	The site appraisal criteria presented within this Scoping Report are still to be finalised. Final criteria will reflect the importance of avoiding impacts to statutory designated sites and those with conservation interest.
8	<b>Environment Agency</b>	Water: The WCS is not the finalisation of the approach to water quality issues. We would recommend that an appropriate local planning policy be developed to reflect the importance of this issue within the local context. This should not only look at the delivery of infrastructure (as per the draft NPPF) and the prevention of pollution from new development, but also seek to deliver local improvements to watercourses / Green Infrastructure which would be able to contribute to the improvement of water quality in the District.	Noted	Cambridge City Council will be looking to develop policies on water quality in the ways recommended, including prevention of pollution and making improvements to watercourses and Green Infrastructure.
9		6.3.6 - 6.3.8 Water Resources are, and will continue to be, a significant issue for Cambridge in relation to the District's geographical location in a water stressed	Amendment	Amended 6.5.1

		region, and the future implications of climate change. We would also recommend that an appropriate local planning policy be developed to reflect the importance of this issue within the local context. This should address new development within the District and we would suggest that it should require the highest standards of water efficiency (i.e. for Dwellings, Levels 5 or 6 of the Code for Sustainable Homes). This will reflect the importance of the issue and ensure that new development minimises its impact on existing water resources. We would be happy to work together with your Authority in the development of a suitable policy on this issue (as identified in 6.5 Key issues and opportunities).		
10		Managing Flood Risk - Whilst the Draft NPPF identifies the overall objectives for directing development away from flood risk sensitive areas, it does not classify some of the terms that it uses (i.e. Sequential Test / Exception Test). In the absence of any clear indication of the way to interpret the policy, we would recommend that the interpretation of flood risk issues be clearly stated within the Local Plan*, as a policy and supporting information (* - subject to what format / what details are contained within the finalised NPPF and any supplementary planning guidance).	Noted	The Technical Guide to the NPPF (March 2012) retains key elements of PPS25. However, Cambridge City Council will ensure that any missing elements are explained clearly within the Plan.
11		The details of the Cambridge Strategic Flood Risk Assessment (SFRA) could be used to inform any planning policy. Again, we would be happy to work together with your Authority in the development of a suitable policy on this	Noted	Cambridge City Council will be using the SFRA to develop planning policy and would welcome working with the Environment Agency on this.

		issue for incorporation within the revised Local Plan.		
12		Climate Change Mitigation & Renewable Energy: There is the opportunity within the review of the LDF / development of a new Local Plan to enable Local Communities to plan and deliver localised renewable energy generation. This is, though, subject to the constraints that have been identified within 8.3 of the scoping report.	Amendment	Amended 8.2.10
13		Biodiversity & Infrastructure: There is a cross-cutting issue relating to GI in the fact that it can also deliver hydromorphological improvements to watercourses that can benefit biodiversity and improve water quality (link to the earlier Water section). This would also link in to the 3rd Bullet point of 10.5.1 of the draft scoping report.	Amendment	Amended 10.5.1
14		Land Contamination: We note that land contamination is included as a measure within the Approach to Site Appraisal. Contamination itself does not necessarily prevent the redevelopment of a site, though the remediation measures required would need to be considered as part of the financial viability of a site's redevelopment. The replacement of PPS' with the NPPF may leave a void in terms of planning policy on this issue. We would therefore recommend that a policy be developed for incorporation within the Local Plan to address this topic. Again, we would be happy to work together with your Authority in the development of a suitable policy for incorporation within the revised Local Plan.	Noted	Cambridge City Council will be looking to develop policy on land contamination and would welcome working with the Environment Agency on this.

15	English Heritage <sup>128</sup>	<p>9.2 Policy context The purposes of Green Belt listed in 9.2.2 are restated in the NPPF. With regard to Cambridge, the fourth purpose is the reason for the Green Belt designation. It is also worth noting that the wording in national Green Belt policy for this purpose has been strengthened over the years to include setting explicitly, but that preserving the ‘special character of historic towns’ encompasses much more than visual setting.</p>	Noted	
16		<p>Landscape 9.3.4 The strategic value of the Green Belt in terms of maintaining a compact city, where the historic core remains the defining feature, and distances from the core to the urban edge are relatively short, should be reflected. The Cambridge Green Belt Study (LDA 2002) provides a helpful analysis of the contribution of the Green Belt to the appreciation of Cambridge, although it is out of date in other respects.</p>	Amendment	Amended 9.3.4
17		<p>Historic Environment and Townscape This section provides a good overview of the city’s heritage assets and townscape. As discussed above, we do not consider the Green Belt to be only a landscape issue: it is a planning tool with particular purposes that relate strongly to the strategic appreciation of the character of Cambridge as a historic town.</p>	Noted	

<sup>128</sup> Comments on the Scoping Report from English Heritage were received by URS after the finalisation of the Scoping Report and completion of the SA of the Cambridge Local Plan Interim SA. These comments will be taken into consideration for all subsequent stages of the plan making process.

18		The impact of tall buildings on the townscape of certain areas within Cambridge should be recognised in the baseline, and their potential to change the character of the city should be noted in para 9.4.1. This is an area where the Local Plan has not been as effective as it might have been, and a review of policy would be beneficial. We believe that this is already underway. The baseline evidence relating to tall buildings should be clearly referred to.	Noted	New policy on tall buildings will be considered as part of the Local Plan Review building upon the evidence in the Cambridge Skyline Guidance document (2012).
19		9.5 Key Issues and opportunities The Green Belt is a key issue and its continued function relative to its purpose should be identified. We agree with, and support, the other issues that are identified in this section.	Amendment	Amended 9.5.1
20		9.6 Data gaps A remedy to the difficulty of addressing the Green Belt in a comprehensive way in the SA would be to provide an up-dated version of the Cambridge Green Belt study, in conjunction with South Cambs District Council.	Noted	A review of the inner Green Belt was completed in May 2012 which is an update of the 'Inner Green Belt Boundary Study' 2002 carried out by Cambridge City Council and taking into account the South Cambridgeshire District Council, Cambridge Green Belt Study (September 2002). This will be taken into account in all subsequent stages of the plan making process.
21		<b>Sarah Brown (Councillor)</b>	I'd ideally like to see something specific mentioned about retail diversity and independents on Mill Road in the Eastern report. It's an area where the existing local plan perhaps isn't serving us so well.	Amendment