



**SCOTT WILSON PLANNING, ENVIRONMENT AND LANDSCAPE**  
Sustainability Appraisal (SA) of the draft North West  
Cambridge Area Action Plan

# ISSUES AND OPTIONS INTERIM SA REPORT



June 2006



## Scott Wilson

We work with clients to develop, implement and evaluate projects, programmes and change initiatives to improve performance and reduce risk.

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### Sustainability Appraisal (SA) of North West Cambridge Area Action Plan – Issues and Options Report

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## SEA DIRECTIVE REQUIREMENTS CHECKLIST

Table 1 below indicates where specific requirements of the SEA Directive can be found within this report. This report is one of several key reports to be prepared as part of the SEA / SA process and the table records in which reports information can be found.

**Table 1: SEA Directive requirements checklist**

Environmental Report requirements <sup>1</sup>	Section of this report
(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;	Scoping reports/ Section 4 (summary)
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Scoping Report / Section 4 (summary)
(c) the environmental characteristics of areas likely to be significantly affected;	Scoping Report / Section 4 (summary)
(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	Scoping Report / Section 4 (summary)
(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;	Scoping report / Section 4 (summary)
(f) the likely significant effects <sup>2</sup> 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;	Section 7 (and subsequent Final SA Report)
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Section 7 (and subsequent Final SA Report)
(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	Sections 6 and 7 (and subsequent Final SA Report)
(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;	Subsequent Final SA Report
(j) a non-technical summary of the information provided under the above headings.	Section 1 (and subsequent Final SA Report)

<sup>1</sup> As listed in Annex I of the SEA Directive (Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment).

<sup>2</sup> These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

# 1 NON-TECHNICAL SUMMARY

## 1.1 Introduction

1.1.1 Under the Planning and Compulsory Purchase Act 2004, the Core strategy of the Local Development Framework identifies areas of significant development as requiring Area Action Plans (AAP). Each AAP must undergo a **Sustainability Appraisal** (see below).

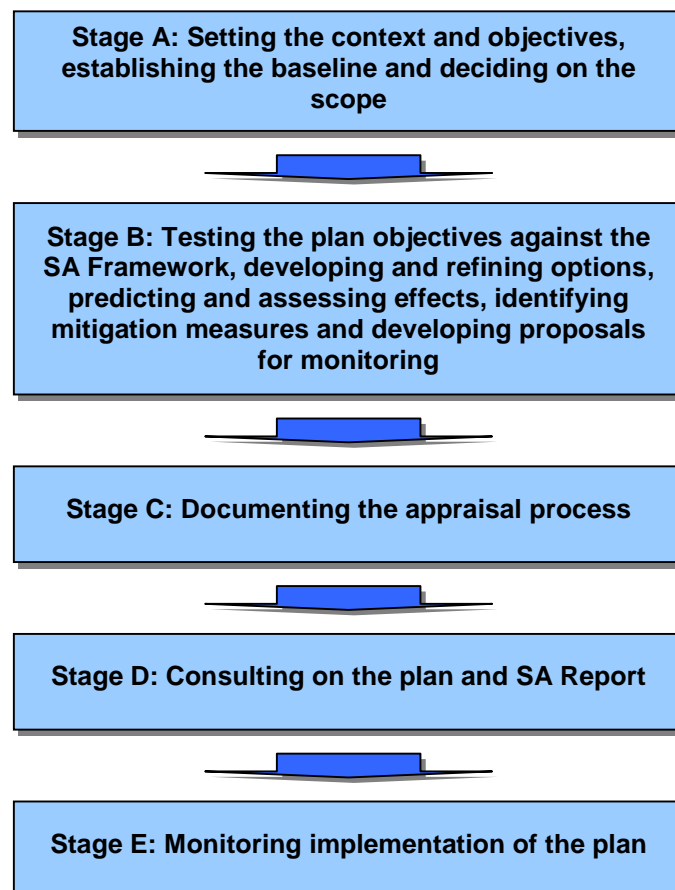
## 1.2 Sustainability Appraisal

1.2.1 Scott Wilson and have been commissioned to support the Cambridge City Council and South Cambridgeshire District Council in undertaking the **Sustainability Appraisal** (SA) of the North West Cambridge AAP.

1.2.2 SA involves the identification and evaluation of the Strategy's impacts on economic, social and environmental objectives – the three dimensions of **sustainable development**. The SA process incorporates the requirements of a new European law on the environmental assessment of plans (referred to as the 'Strategic Environmental Assessment Directive').

1.2.3 The SA process – incorporating SEA – involves five key stages – see Figure 1.

Figure 1 *Five stage approach to SA*



- 1.2.4 Stage A involved establishing the framework for undertaking the SA – essentially a set of sustainable development objectives against which the AAP could be assessed – together with an evidence base to help inform the appraisal. The framework and evidence base are documented in the Cambridge City Council and South Cambridgeshire **Scoping Reports**, which have been subject to consultation, and are available on the respective Council's website.
- 1.2.5 This report - Stage B in the SA process - focused first on appraising the objectives of the AAP and then the issues and options for developing the draft AAP. Although not a formal requirement of the SEA Directive it has been prepared to help demonstrate that sustainability considerations have been incorporated into the development of the North West Cambridge AAP from an early stage, and to provide information for stakeholders as well as an audit trail of the appraisal process. The appraisal findings documented in this report will be taken into account by the two Councils in the development and choice of the preferred options that will provide the basis for the North West Cambridge AAP. Stage B refers to the LDF objectives. At this stage, there are no concrete objectives, however in addition to appraising the options, this report will look at the general aspirations of the Plan

### 1.3 Issues and Options

- 1.3.1 One of the most important parts of the SA process is the appraisal of different options for preparing the AAP. The North West Cambridge AAP has developed a number of different options, which try and maximise environmental, social and economic benefits. The role of the SA is to help inform the decision maker on constructing a draft AAP on what tradeoffs are required and what the associated environmental, social and economic impacts are likely to be. This information should help Cambridge City Council and South Cambridgeshire Council prepare a plan that finds an optimal reconciliation of economic, environmental and social objectives.
- 1.3.2 The tables outlined below summarise the issues and options identified and the summary of the appraisal.

Table 2: Summary of issues and options and their appraisal

<b>Issue: A Vision for the Area</b>
<p><b>Option 7.1</b> Vision. North West Cambridge will create a new University quarter for Cambridge which will also contribute to meeting the needs of the wider city community. Development will be of the highest quality in keeping with the reputation of the University as a centre of excellence and a world leader within the fields of higher education and research, and will address a wide range of the University's long-term development needs. There will be a new neighbourhood centre which will act as a focus for the development but which will also provide facilities and services for nearby communities. A new landscaped urban edge will be created which will enhance the setting of the City and maintain the separate identity of Girton village.</p>
<p><b>Summary:</b> The option is presented in the form of a vision statement. The vision outlines what the councils hope to achieve by the implementation of the Area Action Plan. To achieve the vision the plan must successfully guide the implementation of a range of planning guidance in a sustainable manner. As the detail of the plan will not be known until later in the plan making process, beyond the issues and options stage, the assessment of this option returns unknown outcomes. However, the vision appears consistent with the SA economic objectives but less information on environmental and social aspects are provided.</p> <p>Cumulative, synergistic and indirect impacts: These effects cannot be determined.</p>

**Issue: Objectives**

**Option 8.1 Objectives**

**Summary:**

The worst performing objectives are 5 and 6 (To create a new community which respects and links with adjoining communities and to create a satisfactory mix of uses ). As expected the AAP objectives which concentrate on the need for a new development perform badly against the environmentally focused SA objectives. Tensions between some economic development objectives and environmental objectives are inevitable and reconciliation of the two pillars of sustainable development will be required.

Other AAP objectives perform well or do not impact upon the SA objectives. Furthermore AAP objectives perform well against the economically focussed SA objectives. Finally, the performance of AAP objectives which address transport infrastructure is largely uncertain and will require more information from the options in order to progress the SA further.

Overall the appraisal of the AAP objectives highlights that - some trade off of environmental objectives will be required in order to deliver the AAP. In particular on resource use, habitat, landscape and townscape character, open space and greenhouse gases. Mitigation measures will be required to reduce these potentially negative impacts.



Issue: Green Belt, the setting of Cambridge and the Separation of Communities				
Option 10.1	Option 10.2	Option 10.3	Option 10.4	Option 10.5
<p><b>Summary:</b> The relative sustainability of the options is dependent on the balance between the degree of land take and provision of employment opportunities. Although options 10.1 and 10.2 meet the development aspirations of the University, the impact on the character, setting and landscape of the Cambridge and Girton is substantial. Option 10.5 performs well against landscape, ecological and historical interest impacts. Providing the affordable housing requirement is fulfilled in option 10.5 the main area of underperformance is the lack of employment opportunities due to reduced provision of research facilities. Design specifications for option 10.1 could reduce light pollution impact and for options 10.1 to 10.4 could reduce the prominence of buildings on the top of the ridge. Mitigation measures could reduce the resource impact of options 10.1 and 10.2, e.g. use of recycled aggregates, water efficiency measures and energy efficiency.</p> <p><b>Cumulative, synergistic and indirect impacts:</b> The cumulative environmental impact of options 10.1 and 10.2 will be significant on the immediate local environment in terms of biodiversity, loss of open space and character, setting and landscape. The significant cumulative impact for Option 10.1 lies with the character, setting and landscape, due to: the proximity of the option to the M11; the loss of the sweep of land which is important to the setting of Cambridge and the adverse impact on the character and setting of Girton. The significant cumulative impact for option 10.2 lies with biodiversity and natural heritage impacts due to the amount of land take and the loss of greenbelt fields in the south of the site. Mitigation measures such as building design will decrease the impact of option 10.2 on the landscape, particularly buildings on the higher areas of the site such as the ridge. Option 10.5 will have a cumulative economic impact through the potential loss of employment opportunities both within the proposed research facilities and the services that the larger land take options could accommodate more widely.</p> <p><b>Habitats Directive:</b> The site is within 10km of a designated SAC. The qualifying criteria are the barbestelle bats, which are known to have a flight line of 20km and require foraging areas which contain hedgerows. The site is a small area within the 20km circumference from the boundaries of the SAC and on its own the site is very unlikely to have an adverse impact on the qualifying criteria. However, development in the region may have a cumulative impact on the foraging area for the bats and the councils may want to consult the county council to assess impacts county wide and whether the cumulative impact of the development would have an adverse impact on the qualifying criteria of the SAC.</p>				

**Issue: Affordable Housing**

**Option 11.1** The target for Affordable Housing will be to secure 50% affordable housing as currently set out in the Cambridge Local Plan.

**Summary:**

The option is generally considered sustainable, having negligible environmental and economic effects. Affordable housing should also be of a high quality standard, the proposed mitigation should be significant to ensure that quality is not sacrificed for affordability and as a result producing environmental problems. The text around the option indicates need for key worker housing for people working for the university. The option therefore will not result in socially rented accommodation being provided, which excludes some members of the population from the development.

**Issue: Housing Density**

**Option 11.2** Higher densities will be located away from existing housing and close to the main public transport routes and services and facilities. Lower densities and other College, University or research related buildings with extensive green settings will be located adjacent to existing housing.

**Summary:**

The construction of higher density buildings away from existing buildings will be beneficial for integration with existing buildings and result in a less visually cluttered and displeasing landscape than there may otherwise have been. However placing these buildings in proximity to areas with biodiversity interest may also have negative effects. To avoid these effects the requirement of development to undergo ecological assessment and daylight assessment should be considered for inclusion within the DPD.

**Issue: Relationship between University Housing, Affordable Housing and market housing**

**Option 11.3** The various components of housing development, Student accommodation, University key worker and market housing will be mixed and integrated across the site.

**Option 11.4** Student accommodation, and University key worker housing will be developed as a separate and distinct University quarters, whilst the University key worker and market housing will be mixed and integrated across the site.

**Option 11.5** Student accommodation and University key worker housing will be developed as a separate and distinct University quarter within the site

**Summary:** Option 11.2 performs best and strikes a balance between enabling the student population to live in a distinct area, whilst not completely separating the University population from the market housing. Whether the student population is undergraduate or postgraduate and the design and planning of the housing will determine the extent of the sustainability issues outlined above.

<b>Issue: Employment</b>	
<b>Option 12.1:</b> Employment development at North West Cambridge will be limited to the teaching and research institution requirements of Cambridge University and will not include any additional element of commercial research beyond the level which is currently proposed in the Cambridge Local Plan	<b>Option 12.2:</b> Employment development at North West Cambridge will include a mix of commercial research as well as the teaching and research requirements of Cambridge University to meet the aspirations of Cambridge University.
<b>Summary:</b> Option 12.2 performs better in economic terms relative to option 12.1. It should be considered, however, that in balancing the use of Greenfield land with development, that the most efficient use of the land is chosen and a decision must be made whether this includes further development of the flagship sector. Option 12.1 will not increase demand for additional housing to the extent of option 12.2. Note that housing is a key issue in the area and the priority of the development.	

<b>Issue: A new orbital connecting route</b>			
<b>Option 13.1:</b> A new all purpose route will be developed linking Madingley Road and Huntingdon Road. The route will lie within a green corridor within the University's development.	<b>Option 13.2:</b> A new all purpose route will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the development with regard to slower speeds and safe crossings for pedestrians.	<b>Option 13.3:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road.	<b>Option 13.4:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the developments with regard to slower speeds and safe crossings for pedestrians.
<b>Summary:</b> Option 13.4 performs best across all objectives. Options 13.2 and 13.3 balance the use of undeveloped green corridor space and the promotion of public transport. 13.1 is the least sustainable option.			
<b>Cumulative, synergistic and indirect impacts:</b> Options 13.1 and 13.3 will have cumulative environmental and social impacts, these will be due to loss of open space, noise and air pollution. The most significant cumulative impact will be on local residents living in proximity to the orbital route.			

**Issue: North facing access roads for the M11 at Madingley Road (A1303)**

**Option 13.5:** North facing access roads will be provided in order to mitigate significant adverse traffic impacts from development (subject to their benefit or otherwise to be determined through transport studies)

**Option 13.6:** North facing access roads will not be provided as part of the development

**Summary:** The environmental impact of option 13.5 is significant. Option 13.5 may increase accessibility to the area, but it also encourages car use and thereby undermines the promotion of public transport. Note that option 13.6 may result in increased congestion in local area.

**Cumulative, synergistic and indirect impacts:** The cumulative environmental and social impacts of option 13.5 will have an adverse impact on local residents due to loss of open space, noise and air pollution.

**Issue: Cycle Links**

**Option 13.7:** New and improved cycle links will be provided as part of the development

**Summary:**

The inclusion of cycle links within the development area is considered to have sustainability advantages and this option is viewed as having economic and social benefits as well as environmental. Mitigation has been proposed in the form of undertakings within the plan to provide secure bicycle parking and to provide measures to design out crime from cycle routes.

**Cumulative, synergistic and indirect impacts:**

Indirect positive benefits on biodiversity have been noted. Reducing the potential emissions that the site may produce will have a reduced effect on biodiversity through better air quality, and will help protect the integrity of designated sites within the region.

Issue: Location and scale of the local centre and relationship with adjacent areas	
<p><b>Option 14.1:</b> A local centre will be established, close to the heart of the new development to serve primarily the needs of the development between Huntingdon Road and Histon Road.</p>	<p><b>Option 14.2:</b> A local centre will be established close to the heart of the new development to serve primarily the needs of the development between Madingley Road and Huntindgon Road, with some common community services and facilities to be located close to Huntingdon Road on either the north or south of the road.</p>
<p><b>Summary:</b> Option 14.2 generally performs better across all relevant objectives, there are particular benefits across social and economic objectives. With regards environmental objectives, there is potential benefit of option 14.1 associated with the loss of undeveloped land. This benefit of option 14.1 (objective 1.1) will depend on whether the land that would have been allocated to a local centre is left undeveloped or whether it would be used for other development.</p>	

Issue: The need for a secondary school at North West Cambridge	
<p><b>Option 14.3:</b> land between Madingley Road and Huntingdon Road is an appropriate location for a secondary school.</p>	<p><b>Option 14.4:</b> Land between Madingley Road and Huntingdon Road is not an appropriate location for a secondary school.</p>
<p><b>Summary:</b>          In summary when considering the location of a new secondary school in terms of its sustainability there are only minor differences between locating it on the site or off site but in the locality. Some benefits will be noted for those who will live in the new accommodation created, but these are counter balanced in some cases by the requirements for pupils who will live off site. However, it can be concluded that the provision of a school is beneficial for sustainability and inclusion of measures to ensure this within the DPD will help to promote sustainability.</p> <p><b>Cumulative, synergistic and indirect impacts:</b>          An indirect effect of not including a school in the DPD would be to create more space for housing which in turn would help provide more housing for key workers.</p>	

<b>Issue: The need for a secondary school at North West Cambridge</b>	
<b>Option 14.5:</b> That if a secondary school is to be provided that none of its playing fields are located in the strategic gap separating Cambridge from Girton	<b>Option 14.6:</b> That if a secondary school is to be provided that its playing fields can be located in the strategic gap separating Cambridge from Girton
<b>Summary:</b> Option 14.5 performs well against environmental and social sustainability objectives due to the ecological benefits of retaining some open space within the development and also the landscaping benefits. This would also make more open area available to local residents, should the playing fields be open to the public. Option 14.6 may allow more area for development. If this extra land made available is used for the local centre or research facilities then this option would perform better on economic objectives. At present, it is uncertain how much these factors would be impacted and the decision on options 10.1 to 10.5 would go some way to determining this.	

<b>Issue: Location of the new public open space</b>	
<b>Option 15.1:</b> Open space and recreation facilities should be provided on the site.	<b>Option 15.2:</b> Some of the open space and recreation facilities, could be provided by commuted payments.
<b>Summary:</b> Overall, environmental and social benefits to the local environment and community are greater with option 15.1. It should be borne in mind that the strategic location of the open space could enhance the greenbelt area and mitigate against impacts of the development on the townscape, thus retaining some distinctive gap between Cambridge and Girton.	

<b>Issue: Archaeology</b>	
<b>Option 16.1</b> Given the potential of archaeological remains, in accordance with Government policy, suitably qualified persons should be engaged to undertake a fully analytical, archaeological investigation, prior to any development of the site. This will be necessary to facilitate a detailed understanding of the evolution and significance of the site, based on the assumption that any surviving remains should be preserved in situ, or at least subject to detailed recording following excavation. The results of the study should be published and made available for public examination.	
<b>Summary:</b> This measure is overall deemed to have positive environmental benefits relative to the absence of such measures. The extent or significance of such positive impact would be dependent on how the findings of such an investigation are used and how such information would inform any development plans and preferred option mitigation measures.	

**Issue: Biodiversity**

**Option 17.1** The AAP provides the opportunity to ensure that existing habitats are protected or enhanced by improved planting and management and to create new habitats so that, despite development there is an overall increase in biodiversity. The AAP can establish a strategy based on:

- Existing areas of woodland, hedgerows and mature trees being retained;
- Improvements in the management of the areas where there is to be no built development could offset the loss of habitats elsewhere within the site;
- Providing habitats within the development through the careful design and management of open spaces and the use of building materials and incorporating wildlife features within the built environment;
- Ensuring that all wildlife areas connect to each other to provide a network; and
- Water features, including ponds and the Washpit Brook being managed as a wetland habitat to maximise their biodiversity value. Complementary marginal habitats could also be provided where space allows.

**Summary:**

This strategy would overall have positive benefits on biodiversity, conservation of habitats and people's access to wildlife, relative to no such strategy being in place. However, the significance and extent of such positive impacts is unknown since preferred options are unknown and the extent to which such a strategy could mitigate against any adverse impacts of these is uncertain at this stage.

Issue: Source of energy			
<p><b>Option 18.1:</b> The AAP should require housing and other developments to provide at least 10% of the development's total predicted energy requirements on site, from renewable energy sources.</p>	<p><b>Option 18.2</b> The AAP should require housing and other developments to provide at least 20% of the development's total predicted energy requirements on-site, from renewable energy sources.</p>	<p><b>Option 18.3</b> That in addition to renewable energy requirements set out in Option 18.1 and 18.2 that the AAP strongly support and if possible, required the provision of combined heat and power to meet the energy needs of a considerable proportion of the development at North West Cambridge.</p>	<p><b>Option 18.4</b> That if a combined heat and power scheme is not suitable that the AAP strongly support, and, if possible, require the provision of a district heating scheme to meet the heating needs of a considerable proportion of the development at North West Cambridge.</p>
<p><b>Summary:</b> Option 18.3 performs best on relevant sustainability objectives due to reduced greenhouse gas emissions, increased resource recovery, greater energy sourcing from renewables and enhanced competitiveness. The relative sustainability of option of 18.4 in terms of increased resource recovery and greater energy sourcing from renewables will be dependent on the type of energy harnessed for the district heating system and the extent to which it would provide energy to the development.</p>			

Issue: Construction Process
<p><b>Option 19.1</b> The construction process will need careful management in order that disruption to the adjacent parts of the City and Girton is avoided. Avoidance of impact will be the objective but, where this is not possible, disruption will be kept to a minimum both in magnitude and duration. Realistically it will not be possible to avoid any impact when development is being undertaken immediately adjoining existing areas but measures should be taken to reduce that impact as far as possible.</p> <p>It would not be appropriate to transport spoil over considerable distances as this would be unsustainable and simply transfer the problem to elsewhere. The general principle should be for construction spoil to be treated and utilised on-site.</p> <p>Construction spoil can be used in the construction of sport and recreation facilities provided this is in appropriate locations and will not have adverse implications for landscape character.</p> <p><b>Summary:</b> The mitigation measures perform well against environmental and social objectives, in terms of efficient use of resources and reduced noise and vibration pollution. This will have an indirect impact on human health since Noise and vibration pollution is known to contribute to stress and other adverse impacts particularly on mental health.</p>



**Issue: Drainage**

**Option 20.1** Storm water drainage for the site should be designed as far as possible in line with sustainable drainage systems (SuDS) principles and water storage areas should be designed and integrated into the development with drainage, recreation, biodiversity and amenity value. Although the site lies some way from the Indicative Floodplains defined by the Environment Agency, in accordance with Government policy, a flood risk assessment will be needed. This will address any potential flood risk, and will identify the types of SuDS drainage facilities proposed and options for future adoption and maintenance arrangements. Surface water drainage would be controlled by means of a series of underground cells and pipes and surface water channels. These could form a variety of design features through the development, feeding to water holding features.

**Summary:**

These measures should perform better in terms of reducing vulnerability to flooding than if there were no measures. The significance of positive impacts on limiting water consumption will be dependent on drainage system specifications and how these can be integrated with option 20.6 and other development options. Water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

**Issue: Management and Maintenance of all Water Bodies and Watercourses**

**Option 20.2** All water bodies and watercourses would be maintained and managed by a specific trust which would be publicly accountable. This trust would be funded in perpetuity by taking ownership of commercial property developed as part of the urban extension

**Option 20.3** All water bodies and watercourses would be maintained and managed by the two councils. However the Councils could not guarantee having the necessary resources and expertise to undertake this task

**Option 20.4** All water bodies and watercourses would be maintained and managed by Anglian Water. However Anglian Water is a commercial organisation and could not guarantee being able to fulfil this function in perpetuity

**Option 20.5** All water bodies and watercourses would be maintained and managed by Cambridge University. However, the University could not guarantee having the necessary resources and expertise to undertake this task

**Summary:** Overall, option 20.1 performs best. It is thought that a designated trust would have more time and resources to maintain the waterways. In addition, the focus of the trust on the specific task will be of benefit to overall management of waterways.

**Issue: Water conservation**

**Option 20.6** The aim should be to reduce water consumption generally, but to seek a balance in the management of water recycling so that there is no adverse impact on the water environment and biodiversity. Opportunities for community water recycling measures should be investigated as well as measures that could be adopted in the home.

**Summary:**

These potential measure perform well in terms of limiting water consumption to levels supportable by natural processes and storage systems. How well these measures perform is dependent on how these are implemented and the level to which they can mitigate any indirect adverse impacts of development options on water use. Since definitive measures cannot be stipulated prior to preferred options, at this stage the significance of such positive impacts are uncertain. However it is asserted that these impacts will be positive relative to no such measures being put in place. In addition, water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

**Issue: Phasing and Implementation**

**Option 22.1** The first phase of development would take place close to the existing built up area of Cambridge in the eastern part of the site, moving outwards and westwards as the needs of the University are proved

**Option 22.2** The first phase of development would take place around a local centre, moving outwards and westwards as the needs of the University are proved

**Summary:** Option 22.1 performs better on environmental objectives due to the potentially reduced area of land take if University needs are not demonstrated ie there may be less development of a local centre than option 22.2 if the needs of the University are realised at an early stage of housing development. However, the development of a local centre early on in development will ensure local residents have access to services and facilities throughout construction phases of residential development. It should be noted that the benefits of option 22.2 relative to 22.1 are short term in nature. However, the benefits of option 22.1 would be long term if they are realised.

**Cumulative, synergistic and indirect impacts:** Option 22.1 may result in cumulative impacts on the environment due to a greater use of undeveloped land. These impacts would include loss of open space and biodiversity. The cumulative impacts of 22.1 would lie with the local economy and local provision of services and facilities, however, these would be short term in nature.

**Issue: Strategic landscaping**

**Option 22.3** An agreed landscape strategy will be needed to ensure that the east part of the development area is landscaped, managed and protected where practical before much of the development is started, and that appropriate landscaping is completed promptly upon the completion of each phase of the development.

**Summary:**

These measures will potentially have a positive effect on mitigating impacts and maintaining the diversity and distinctiveness of the landscape and townscape character, relative to no such measure being in place. In addition the measures will help to create places, spaces and buildings that work well with the landscape. Landscape impacts could potentially be significant should there be development on the ridge, together with development impacts on the character and distinctiveness of Cambridge and Girton and landscaping issues around the site. The significance of the positive impacts of these measures are at this stage uncertain. This will be dependent on preferred options and how far these measures can mitigate against any adverse impacts.

**Issue: Phasing and Implementation**

**Option 22.4** That the AAP require the development to provide physical and community infrastructure to meet the needs of its residents and other users to an agreed timetable

**Summary:**

This plan will ensure that quality, range and accessibility of services are provided. The significance of such positive impacts will be dependent on the decision-making process and the outputs of such a process.

## 1.4 CONCLUSIONS

- 1.4.1 The environmental objectives bare the burden of the potential negative impacts arising from the different options. This is also where there is the greatest potential for cumulative impacts to occur.
- 1.4.2 There tends to be a slightly higher degree of uncertainty within the environmental than the economic objectives. However, most of the uncertainty is focussed around several options, in particular 7.1, 12.1, 12.2, 14.1, 14.2 and 14.5.
- 1.4.3 The economic objectives tend to have less negative and more positive impacts across the options than the social and environmental objectives
- 1.4.4 Identifying which is the most sustainable option within most of the issues identified is not straightforward. Most require a degree of trade off especially between environmental and economic objectives of the SA.
- 1.4.5 The SA does clearly identify one of the options as being more sustainable within the issue regarding access to the M11. The SA suggests that building access roads to the M11 will most likely detract from the sustainable development of North West Cambridge.
- 1.4.6 The SA suggests that the decision on which options to proceed with, will require a degree of trade off between the environmental and economic issues affecting North West Cambridge.
- 1.4.7 Perhaps the most important decision is the one regarding the size of the footprint. Five options have been produced and two options appear to try and compromise between maximising the land available for development whilst trying to minimise the negative environmental consequences. Another key decision will be the selection of the transport options, particularly the degree to which the new development will rely on the car. There is potential for a good sustainability win if the options that promote public transport over car use are taken forward.
- 1.4.8 Ultimately the potential economic benefits of at least providing most of what the University says it requires extend beyond North West Cambridge and potentially affect the whole region and even perhaps nationally. The negative environmental impacts are more locally based. A significant environmental impact will be on the landscape and characteristics of the local area including the setting of Girton and Cambridge city. There is potential to mitigate some of the more important negative impacts such as the increased resource use and transport intensity as well as preserving the characteristic Cambridge townscape.
- 1.4.9 The most serious potential negative impact is probably the use of scarce water resources. East Anglia is officially a water short area. The AAP talks about fitting water saving technologies in new developments. This is essential if negative impacts are to be reduced. However, the AAP may seek to go beyond this and perhaps undertake to retrofit existing homes in the area with water saving technologies. This could significantly enhance the real and perceived sustainability of the AAP.

- 1.4.10 Other mitigation measures include the specification of low impact building design to decrease the impact of option 10.2 on the landscape, particularly buildings on the higher areas of the site such as the ridge. Ensuring that the school playing fields are open to the public would provide more social benefits for option 14.5 due to increase in available open space within the development. Specific mitigation measures will be required at the next stage of assessment on the preferred options, when the full cumulative impacts of the development are known.
- 1.4.11 Some of the single options regarding, archaeology, biodiversity, construction processes, drainage, water conservation and landscaping, will provide additional mitigation measures, which will help ameliorate potential negative impacts and maximise potential positive impacts.

## 2 HOW TO COMMENT ON THIS REPORT

- 2.1.1 To comment on this report please contact:

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## 3 INTRODUCTION

### 3.1 North West Cambridge Area Action Plan

- 3.1.1 Cambridge City Council and South Cambridgeshire District Council are currently preparing the North West Cambridge Area Action Plan.
- 3.1.2 The Action Plan will outline the urban extension to Cambridge between Madingley and Huntingdon Road. The extension would cover land in both Cambridge City and in the Parish of Girton in South Cambridgeshire and would meet the long term development needs of Cambridge University.
- 3.1.3 The LDFs, prepared by Cambridge City Council and South Cambridgeshire District Council, will include a number of Local Development Documents (LDDs). There are two types of LDDs – Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).
- 3.1.4 The Action Plan is a Development Plan Document (DPD) and forms part of the Local Development Framework (LDF) being prepared by the two councils.
- 3.1.5 Each LDD – including the North West Cambridge Area Action Plan must be subject to a Sustainability Appraisal (SA).
- 3.1.6 Prior to adoption, the Area Action Plan Issues and Options report will be put forward for public consultation in order to inform the decision making process and the final Area Action Plan.
- 3.1.7 This report outlines the Sustainability Appraisal carried out by Scott Wilson for the Issues and Options Report.

## 3.2 North West Cambridge Area Action Plan

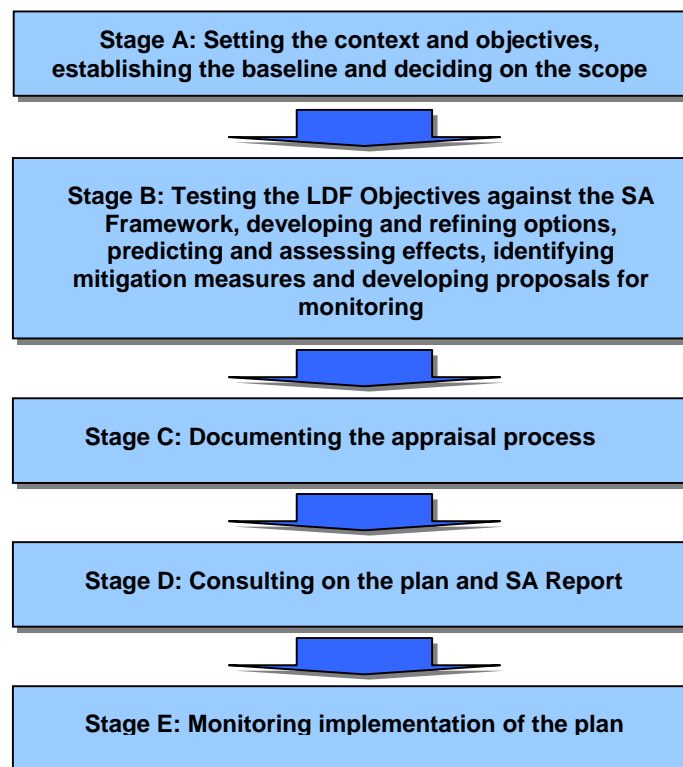
- 3.2.1 The North West Cambridge Area Action Plan is required due to the proposals in regional plan RPG6 concerning the high levels of growth in the Cambridge area required to support the local economy. Growth in and on the edge of Cambridge is identified as the most suitable location for that development.
- 3.2.2 The Cambridgeshire and Peterborough Structure Plan 2003 identifies the North West Cambridge area as one where major change is to take place through a review of the Cambridge green belt. Policy P9/2b proposes development specifically for predominantly University-related uses between Huntingdon Road and Madingley Road.

## 3.3 SA of the AAP options

- 3.3.1 Scott Wilson has been commissioned to undertake the Sustainability Appraisal of the draft North West Cambridge Area Action Plan – Issues and Options Report.
- 3.3.2 Under the Planning and Compulsory Purchase Act 2004, each LDD – the components of an LDF - must undergo a Sustainability Appraisal (SA). SA involves the identification and evaluation of the LDD's impacts on economic, social and environmental objectives – i.e. its compatibility with the three dimensions of sustainable development. The SA process incorporates the requirements of a new European law requiring certain plans and programmes to undergo a formal Strategic Environmental Assessment (SEA).
- 3.3.3 SEA involves the systematic identification and evaluation of the environmental impacts of a strategic action (e.g. a plan or programme). In 2001, the EU legislated for SEA with the adoption of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive'). The Directive entered into force in the UK on 21 July 2004 and applies to a range of English plans and programmes including many LDDs.
- 3.3.4 SA and SEA are therefore both statutory requirements. The Government's approach to this dual requirement is to incorporate the requirements of the SEA Directive into a wider SA process which considers economic and social as well as environmental effects. To this end, in September 2004, the Government published draft guidance – which was finalised in November 2005 - on undertaking SA of LDDs which incorporates the requirements of the SEA Directive<sup>3</sup> ('the Guidance'). The combined SA / SEA process is referred to in the Guidance and in this document as 'Sustainability Appraisal (SA)'.
- 3.3.5 The Guidance advocates a five-stage approach to undertaking SA (see Figure 1).

<sup>3</sup> ODPM (2005). *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*.

Figure 1. Five stage approach to SA



- 3.3.6 Stage A involves establishing the framework for undertaking the SA – essentially a set of sustainable development objectives against which each LDD, including the NW Cambridge AAP, can be assessed – together with the evidence base that will help to inform the appraisal. The framework and evidence base are documented in Scoping Reports for both Cambridge City Council and South Cambridgeshire District Council and a set of objectives have been formulated specifically for the NW Cambridge AAP. These are outlined in the NW Cambridge AAP Scoping Report.
- 3.3.7 Stage B of the SA process involves the main body of appraisal work. With respect to the North West Cambridge AAP, this involves assessing the AAP objectives for the site (i.e. the aspirations for its future) and the various AAP options generated, the choice of which will provide the foundations for the North West Cambridge AAP.
- 3.3.8 This report – referred to as an **Interim SA Report** – documents the appraisal of the options proposed by the councils and summarises their potential economic, social and environmental implications. This report – although not a formal requirement – has been prepared to help demonstrate that sustainability considerations have been incorporated into the development of the North West Cambridge AAP from an early stage, and to provide information for stakeholders as well as an audit trail of the appraisal process. The appraisal findings documented in this report will be taken into account by the two Councils in the development and choice of the



preferred options that will provide the basis for the North West Cambridge AAP. Stage B refers to the LDF objectives.

### 3.4 What happens next?

- 3.4.1 Following the choice of preferred options, a further appraisal will be undertaken of these and the findings will be documented in a **Final SA Report**. The latter will be published for consultation alongside the report on the preferred options (as required by Regulation 26 of the Town and Country Planning (Local Development) Regulations, 2004).

### 3.5 Report structure

- 3.5.1 This report is structured as follows:

Section 4 – Summarises the relevant findings from Stage A in the SA process

Section 5 – Sets out the appraisal of the draft North West Cambridge AAP Objectives

Section 6 – Sets out the options appraisal methodology

Section 7 – Sets out the appraisal of the draft North West Cambridge AAP options

Appendix 1 – Sets out the detailed appraisal findings

- 3.5.2 The SEA Directive sets out a legal assessment process that must be followed. In light of this, this report clearly sets out the relevant requirements of the SEA Directive and explains how these have been satisfied (or will be satisfied). In particular, the SEA Directive requires that 'reasonable alternatives' – or options - are identified, described and evaluated taking into account 'the objectives and the geographical scope of the plan or programme'.

## 4 STAGE A FINDINGS

### 4.1 Introduction

4.1.1 Stage A in the SA process involved five key tasks:

**A1 – Identify other relevant plans, programmes and sustainability objectives that will influence the LDF**

**A2 – Collect relevant social, environmental and economic baseline information**

**A3 – Identify key sustainability issues for the SA / plan to address**

**A4 – Develop the SA framework, consisting of the SA objectives, indicators and targets**

**A5 – Produce a Scoping Report and consult relevant authorities, the public and other key stakeholders on the scope of the appraisal**

4.1.2 Stage A in the SA process was undertaken in 2005 and the findings documented in two Scoping Reports, one for each council. The South Cambridgeshire report was subject to consultation in June 2005 and was subsequently revised in light of comments received. The Cambridge City Council Scoping Report was published in March 2005. The principal findings from Stage A are summarised in the sections that follow.

### 4.2 A1: Context Review

4.2.1 The first task in Stage A of the SA process involved reviewing the policy and sustainability context in which the Cambridge City Council and South Cambridgeshire District Council LDFs are being prepared. This entailed reviewing a large number of policies, plans, programmes, strategies and initiatives prepared at international, national, regional and local level considered relevant to the LDF. This review identified a number of pre-requisites (including targets) which policies in the documents comprising the LDF must reflect in the light of local circumstances. The documents examined for the South Cambridgeshire District Council and Cambridge City Councils LDFs are given in Appendix 1.

### 4.3 A2: Baseline information

A second programme of research was undertaken to assemble a baseline dataset which quantifies local conditions on 40 parameters, including river water quality, air quality, loss of high quality agricultural land, the area and condition of important wildlife habitats, housing completion rate and the achievement of energy efficiency ratings in new dwellings, levels and patterns of commuting and travel to school, availability of shops and other amenities in the District's villages, unemployment levels, educational achievement rates, etc. Data on conditions in adjacent local authority areas, in the East of England, or nationally, was used to determine whether environmental, economic and social conditions in the District were favourable, average or typical of the surrounding region, or unsatisfactory and in

need of specific corrective policy. The findings of the baseline reviews for the South Cambridgeshire District Council and Cambridge City Council scoping reports, together with updated baseline information from the South Cambridgeshire District Council Annual Monitoring Report, 2005 are given in Appendix 2.

#### 4.4 A3: Sustainability Issues

##### Main social, environmental and economic issues and problems identified

The issues identified in the South Cambridgeshire Scoping Report are summarised below:

##### *Land and water resources*

- Limited stock of brownfield land means new development will inevitably result in the loss of high-quality agricultural land;
- New development may sterilise important local sources of sand and gravel;
- New development could alter natural drainage patterns while also providing scope for contamination of groundwater in areas where rainfall currently percolates directly into the soil;
- Development will make additional demands of water supply (for homes, industry, etc.) in an area where the capacity of natural systems is limited.

##### *Biodiversity*

- The rural nature of the district means that development may result in the loss or deterioration of local habitats such as hedgerows and verges;
- Development may affect specific areas covered by national and international designations, which are often very sensitive and can be easily affected by impacts from non-adjacent locations.

##### *Landscape, townscape & archaeology*

- Further expansion at the fringes of Cambridge could adversely affect the unique character and setting of the city by hemming it in, affecting the quality of approaches to the City, harming the quality of the landscape, and shutting off key views of its distinctive skyline;
- The pace of growth and infilling around Cambridge means that there is no clear local style or building material and further growth may exacerbate this situation if clear design controls are not imposed;
- Uncontrolled or unsympathetic development could harm local landscape character if it occurs on a large enough scale, or repeatedly through a particular area;

- South Cambridgeshire's archaeological heritage could be threatened by development that in effect sterilises known sites, or which harms the setting of sites with important historical or cultural associations;
- Development may encroach on existing areas of open space, amenity and recreation value, or it may harm their setting and tranquillity.

#### *Climate change and pollution*

- Development pressure in the north of the district may result in use of land potentially subject to flooding by the Great Ouse and its tributaries (there is a lower risk in the south of the district);
- Local topography and drainage systems mean that there is an existing flood hazard across parts of the district;
- Adoption of sustainable development objectives that reduce the direct and indirect impacts of climate change, increased use of renewable energy, and more energy-efficient management of homes and business properties cannot occur without the support of, and direct action by, employers, homeowners and parents;
- The rural nature of the district makes residents dependent on the private car, resulting in high levels of ownership and usage;
- The district straddles several important transport arteries, and addressing local transport issues such as encouraging a modal shift to public transport will not solve the whole problem;
- Dispersal of housing and employment beyond Cambridge city has occurred at different rates and in different directions, contributing to high levels of commuting, particularly that by private car;
- Despite improvements in composting and recycling, the rate of waste production is still rising;
- Development through infilling or creation of new communities will contribute to noise and light pollution.

#### *Healthy communities*

- Fear of crime in the district is disproportionate to actual crime rates;
- Dependence on the private car for shopping, commuting and the school run has knock-on effects on people's willingness to use more sustainable forms of transport for these activities, and for recreation;
- Gradual increase in the size of the retired sector of the local population will make increasing demands on provision of appropriate health care, and the need

to ensure this part of the community has convenient access to shops, amenities and social facilities;

- Ensuring high quality family and early years support is available;
- Development pressure may result in the loss of open space that has recreational value, which may encourage sports activities, or which benefits the character of the locality.

#### *Inclusive communities*

- House purchase and rental rates in the district are above the national average and continue to rise while salaries do not (particularly in the public sector), with the result that more than half the households in the district could not buy an average-priced home, creating a divided society;
- Lack of facilities in rural communities for young people in particular may contribute to residents' fears about crime;
- Loss of amenities and services in rural centres is likely to occur without positive action to reverse the trend;
- The increasing proportion of aged population will make increasing demands of the need for special access facilities, including community transport schemes;
- The increasing trend for the district's communities to become dormitory or commuting suburbs for Cambridge and London could lead to a loss of community identity, reducing inclusiveness and community involvement;
- The district has a substantial population of travellers whose needs differ from those of the resident population;
- Rural dispersal can make it difficult to justify the business case for regular transport connections to major shopping, employment and entertainment facilities.

#### *Economic activity*

- Research and technology are vitally important to the Cambridge sub-regional economy but the district must not become over-dependent on a limited employment base, and people with other skills should not be driven away from the district in search of work;
- Farm diversification or the conversion of farm buildings for other business uses could add to vehicle traffic in rural areas offsetting any employment benefits generated;
- The district's (sub-region's) rapidly growing economy will make substantial demands on infrastructure investment;

- Unplanned growth in tourism and related developments could increase traffic, detract from rural or urban character, and place additional pressure on other resources such as water supply;
- The disproportionate size of Cambridge as a retail centre could have adverse effects for attempts to retain and improve service and amenity provision in smaller centres in the district;
- The predominantly dispersed rural population of the district makes it difficult to justify the cost of installing broadband telecommunications infrastructure which could encourage teleworking and support the dispersal of some businesses.

Additionally, issues identified in the Cambridge City Scoping Report are summarised below:

- Although overall educational achievements are high, there is a core of young people leaving school with few qualifications.
- High average house prices are pricing key workers out of the area. Need to recognise the diversity of the population in Cambridge.
- Growth pressures put increased demands on historic city centre and for the development of the Green Belt.
- Redevelopment within the city putting increasing pressure on existing open space.
- Growth pressures have led to the need to release land from the Green Belt for future development. This has implications for the landscape and setting of the City, biodiversity, recreation and access to the countryside, and flood risk.
- Growth pressures put strain on resources such as water supply, energy, waste management.
- High levels of commuting into Cambridge by car and transport problems within Cambridge such as congestion, air pollution, and traffic noise.

From the initial evidence a set of key issues was identified which are to be addressed by all the policies in the LDF. These are grouped under seven headings shown below, together with examples of some of the key issues identified.

<i>Land and water resources</i>	Loss of agricultural land; the effect of new development on water consumption and resources
<i>Biodiversity</i>	Deterioration of important and characteristic vegetation features (eg. hedgerows); the need to protect nationally important wildlife assets.
<i>Landscape, townscape &amp; archaeology</i>	Protecting the character and setting of Cambridge, communities within the District, and its wider landscape; development design and materials that conform to local traditions; and the need to protect open space.
<i>Climate change and pollution</i>	High levels of car usage due to separation of homes and jobs; the constraints imposed by flood risk especially in the north of the District; and the need for effective energy conservation.
<i>Healthy communities</i>	Need to encourage healthier lifestyles and travel choices; the effect of the growing retired community, and their concerns about crime.
<i>Inclusive communities</i>	Increasing disparity between house prices and incomes which affect the public sector in particular; the need to retain a basic range of amenity in rural communities; the need to provide good access to all services for the whole population; and the need to cater to the needs of the travelling community.
<i>Economic activity</i>	Need to balance employment growth in the sub-region's key strengths with a range of opportunities across all skill levels and sectors; need to encourage appropriate farm diversification to prevent rural stagnation; and to maintain services in spite of the local dominance of Cambridge.

## 4.5 A4: SA objectives

- 4.5.1 SA is fundamentally based on an **objectives-led approach** whereby the potential impacts of a plan are gauged in relation to a series of objectives for sustainable development. In other words, the objectives provide a methodological yardstick against which to assess the effects of the plan.
- 4.5.2 As part of Stage A of the SA process, a series of 22 sustainable development objectives were established from both the Cambridge City Scoping Report and the South Cambridgeshire Scoping Report and outlined in a separate document, the NW Cambridge AAP Scoping Report– see Appendix 3. A summary framework of these objectives is given below in table 3. The Scoping Reports provide further details of how these objectives were developed and consulted upon.

*Table 3 : Sustainability Appraisal Framework (Source: South Cambridgeshire District Council Scoping Report 2006; Cambridge City Council Scoping Report 2005)*

Sustainability topic	Sustainability objectives	Decision-making criteria	Relevant Indicators
Land and water resources	1.1 Minimise the irreversible loss of undeveloped land and productive agricultural holdings	Will it use land that has been previously developed?	% of dwellings completed on previously developed land Net density of new dwellings completed
		Will it use land efficiently?	
		Will it protect and enhance the best and most versatile agricultural land?	
	1.2 Reduce the use of non-renewable resources, including energy sources	Will it reduce emissions of greenhouse gases by reducing energy consumption?	KwH of gas consumed per household per year Generating potential of renewable energy sources within the District
		Will it lead to an increased proportion of energy and other resources being met from renewable sources?	
	1.3 Limit water consumption to levels supportable by natural processes and storage systems	Will it reduce water consumption?	Water consumption per capita (however this data is not currently available)
Will it conserve ground water resources?			
Biodiversity	2.1 Avoid damage to designated sites and protected species	Will it protect sites designated for nature conservation interest?	% of SSSIs in favourable or recovering condition
	2.2 Maintain and enhance the range and viability of characteristic habitats and species	Will it conserve species, reversing declines, and help to enhance diversity?	Total area designated as SSSI Progress in achieving BAP targets
		Will it reduce habitat fragmentation?	
		Will it help achieve Biodiversity Action Plan targets?	
	2.3 Improve opportunities for people to access and appreciate wildlife and	Will it improve access to wildlife, and wild places?	% of rights of way that are open and easy to use Area of strategic open space per
		Will it maintain and, where possible, increase the area of high-quality green space in the District?	



Sustainability topic	Sustainability objectives	appraisal	Decision-making criteria	Relevant Indicators
	wild places		Will it promote understanding and appreciation of wildlife? Will it improve access to the wider countryside through the network of public rights of way?	1000 people Area of local nature reserve per 1000 population
Landscape, townscape and archaeology	3.1 Avoid damage to areas and sites designated for their historic interest, and protect their settings.		Will it protect or enhance sites, features of areas of historical, archaeological, or cultural interest (including conservation areas, listed buildings, registered parks and gardens and scheduled monuments)?	% of listed buildings classified as being 'at risk'
	3.2 Maintain and enhance the diversity and distinctiveness of landscape and townscape character		Will it maintain and enhance the diversity and distinctiveness of landscape and townscape character?	% of built-up area having conservation area status
			Will it protect and enhance open spaces of amenity and recreational value?	
			Will it maintain and enhance the character of settlements?	
3.3 Create places, spaces and buildings that work well, wear well and look good		Will it improve the satisfaction of people with their neighbourhoods as places to live?	Residents' satisfaction with the quality of the built environment	
		Will it lead to developments built to a high standard of design, and good place making?	% of new homes meeting the EcoHomes or similar standard	
Climate change and pollution	4.1 Reduce emissions of greenhouse gasses and other pollutants (including air, water, soil, noise, vibration and light)		Will it reduce emissions of greenhouse gases?	CO <sub>2</sub> emissions per household / by sector per year
			Will it improve air quality?	Average annual NO <sub>2</sub> concentration
			Will it reduce traffic volumes?	Days when fine particle levels are in 'moderate' or 'high' bands
			Will it support travel by means other than the car?	Vehicle flows across urban boundaries
			Will it reduce levels of noise or noise concerns?	
			Will it reduce or minimise light pollution?	% of main rivers of good or fair chemical / biological quality
		Will it improve water quality including by reducing diffuse and point source water pollution?		

Sustainability topic	Sustainability objectives	appraisal	Decision-making criteria	Relevant Indicators
	4.2 Minimise waste production and support the recycling of waste products		Will it reduce household waste?	Household waste collected per person per year % of household waste recycled
			Will it increase waste recovery and recycling?	
	4.3 Limit or reduce vulnerability to the effects of climate change (including flooding)		Will it minimise risk to people and property from flooding, storm events or subsidence?	No. of properties within flood risk areas
Healthy communities	5.1 Maintain and enhance human health		Will it substantially reduce mortality rates?	Life expectancy at birth (specified separately for males and females) Excess winter deaths No. of cyclists crossing the River Cam bridges screen line
			Will it encourage healthy lifestyles, including travel choices?	
	5.2 Reduce and prevent crime, and reduce the fear of crime		Will it reduce actual levels of crime?	Recorded crimes per 1000 people % of residents feeling 'safe' or 'fairly safe' after dark
Will it reduce fear of crime?				
	5.3 Improve the quantity and quality of publicly accessible open space		Will it increase the quantity and quality of publicly accessible open space?	Area of strategic open space per 1000 people No. of sports pitches for public use per 1000 people Number of play grounds and play areas provided by the Council per 1000 children under 12
Inclusive communities	6.1 Improve the quality, range and accessibility of		Will it improve the quality and range of services and facilities, including health, education, shopping, sport, leisure, arts and cultural activities?	% of population in categories 1, 2 or 3 for access to primary school, food shop, post office and public

Sustainability topic	Sustainability objectives	appraisal	Decision-making criteria	Relevant Indicators	
	services and facilities (e.g. health, transport, education, training, leisure opportunities)	Will it improve accessibility to key local services and facilities, including health, education and leisure (shops, post offices, pubs etc)?	Will it improve accessibility by means other than the car and improve the attractiveness of environmentally better modes including public transport, cycling and walking?  Will it support and improve community and public transport?	transport % of residents by targeted group satisfied with local authorities cultural and recreational activities Local bus passengers entering and leaving Cambridge per day Modal share of cyclists and pedestrians % of children travelling to and from school by different modes	
		Will it improve relations between people from different backgrounds or social groups?			% of residents who feel their local area is 'harmonious' Index of multiple deprivation Range of Income levels
		Will it reduce poverty and social exclusion in those areas most affected?			
	Will it promote accessibility for all members of society, including the elderly and disabled?				
	6.2 Redress inequalities related to age, gender, disability, race, faith, location and income	Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?	Will it reduce the number of unfit homes?  Will it meet the needs of the travelling community?	House price / earnings ratio % of all dwellings completed that are provided under affordable purchase or tenancy arrangements Percentage of households that can afford to purchase the average first time buyers property in the area. Number of new homes built / brought back into occupation	
		Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?			
		Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?			
	6.3 Ensure all groups have access to decent, appropriate and affordable housing	Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?	Will it reduce the number of unfit homes?  Will it meet the needs of the travelling community?	House price / earnings ratio % of all dwellings completed that are provided under affordable purchase or tenancy arrangements Percentage of households that can afford to purchase the average first time buyers property in the area. Number of new homes built / brought back into occupation	
		Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?			
Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community?					

Sustainability topic	Sustainability objectives	appraisal	Decision-making criteria	Relevant Indicators
	6.4 Encourage and enable the active involvement of local people in community activities		Will it increase the ability of people to influence decisions?	% of adults who feel they can influence decisions affecting their local area
			Will it encourage engagement with community activities?	% of adults who have provided support to others in the past year
Economic activity	7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence		Will it encourage businesses development?	Unemployment rate % of residents aged 18-74 in employment and working within 5km of home (or at home)
			Will it improve the range of employment opportunities to provide a satisfying job or occupation for everyone who wants one?	
			Will it improve accessibility to local employment by means other than the car?	
			Will it encourage the rural economy and diversification?	
	7.2 Support appropriate investment in people, places, communications and other infrastructure		Will it improve the level of investment in key community services and infrastructure?	% of 15 year old pupils in schools maintained by the local authority achieving 5 or more GCSEs at grades A* to C or equivalent (Possible indicator measuring the level of Section 106 contributions to infrastructure projects that have an impact on the plan area)
			Will it support provision of key communications infrastructure, including broadband?	
			Will it improve access to education and training, and support provision of skilled employees to the economy?	
	7.3 Improve the efficiency, competitiveness, vitality and adaptability of the local economy		Will it improve business development and enhance competitiveness?	Annual net change in VAT registered firms Economic activity rate (% of working age population in full or part-time employment)
			Will it support the Cambridge area's position as a world leader in research and technology based industries, higher education and research, particularly through the development and expansion of clusters?	
			Will it support sustainable tourism?	

Sustainability topic	Sustainability objectives	appraisal	Decision-making criteria	Relevant Indicators
		Will it protect the shopping hierarchy, supporting the vitality and viability of Cambridge City Centre, town, district, and local centres?		

## 4.6 Stage A Findings and Relevance to Site

The following table provides a summary of stage A findings relevant to the site in north west Cambridge. The sustainability issues were taken from the scoping reports of South Cambridgeshire District Council and Cambridge City Council, from the baseline data, the background information and the identified issues and responses. The section of the scoping report the information is sourced from is given in brackets.

*Table 4. Sustainability issues facing Cambridge City and South Cambridgeshire which are likely to be relevant to the site*

Baseline/sustainability issue/objective	Relevance to site
<b>Environmental</b>	
<p>Water supply issues, capacity of natural supply system is limited, ensure new developments are designed to use water efficiently (Land and Water Resources, SCDC)</p> <p>New development could alter natural drainage patterns and contamination of groundwater (Land and Water Resources, SCDC)</p> <p>If clay soil, grey water recycling is more practical than sustainable urban drainage systems in new developments (Climate change and Pollution, SCDC)</p>	<p>Consider water needs of new development, and cumulative impact of nearby development.</p> <p>Development will change greenfield, open land to built up area, risk of change to natural drainage system. Effluent and run off from site could contaminate groundwater</p> <p>Run off to river on western edge of site. Ensure no excessive nutrient loading and eutrophication. Ensure minimal impact on water bodies such as Park and Ride pond.</p>
<p>Poorest air quality adjacent to roads (Climate change and Pollution, SCDC)</p> <p>Minimise damage and disruption from transport (obj. 6 CCC)</p> <p>Rate of traffic going in and out of Cambridge is stable, but still higher than LTP target, (baseline assessment SCDC)</p>	<p>Development in close proximity to M11 and A14. Options include plans to develop a new orbital road and feeder lanes for the M11 junction. Increase in traffic due to development, possible commuting to commercial research facilities.</p> <p>Impact from travel to work for commercial research staff and possibly students to and from city.</p> <p>Development likely to increase traffic going in and out of Cambridge. Good public transport links and accessibility to public transport would mitigate impact.</p>
<p>Seek to minimise noise and light pollution from new development by careful siting and design (Climate change and Pollution, SCDC)</p>	<p>Ensure light and noise pollution taken into account in design plans. Development on ridge may impact on light pollution levels. Feeder roads to M11 may increase noise pollution in close proximity to site development.</p>

<p>Limited brownfield sites in district, ensure most efficient use of land (Land and Water Resources, SCDC)</p> <p>Promote the sustainable use of land, buildings and green spaces.                  Need to minimise the impact of new development and ensure that opportunities to enhance the environment are maximised (Maintain Cambridge as an attractive place to live, work and visit, CCC)</p>	<p>Development on previously undeveloped agricultural land. Compensate habitat loss fully.</p> <p>Footprint of development varies across options, ensure most efficient use of land through spatial planning and planning density requirements.</p>
<p>Protect local mineral resources (Land and Water Resources, SCDC)</p> <p>Minimise environmental damage resulting from the use of resources (obj 5, CCC)</p>	<p>Will the development ensure recycled aggregate is used, links could be made with dredging industry.</p>
<p>Eversden and Wimpole Woods SAC, hosting barbestelle bats.                  National and International designations are often very sensitive and can be easily affected by impacts from non-adjacent locations.                  (Biodiversity SCDC)</p> <p>SSSI                  County Wildlife sites                  BAP Priority habitats, species protection, target areas habitat creation.                  (Biodiversity SCDC)</p>	<p>SAC is within 10km. Flight line of barbestelle bats is 20km and require foraging areas within this flightline.</p> <p>SSSI on site, geological classification. English Nature has stated that the development plans will not impact on the SSSI features.</p> <p>One Cambridge City Wildlife Site adjacent to southern boundary of site.</p> <p>Washpit Brook and wetlands area in the west of site. Hedgerows across site, small coppice areas.</p> <p>Main, subsidiary and outlying Badgers setts on site utilised by one social group of badgers, likely to be impacted by development.</p> <p>Most valuable ecological features in west and south of site.</p> <p>Wolver population at Washpit Brook require protection.</p> <p>The LBAP for Cambridgeshire contains a number of habitat and species action plans. Habitat Action Plans (HAPs) exist for arable land, hedgerows, and ponds. The Species Action Plans (SAPs) include those for great crested newts, skylark, song thrush, pipistrelle bats, water voles, and brown hare, all of which have been encountered on the site (Ecology survey).</p>

<p>Five landscape areas in district. New development should enhance the character of these areas. Seek a high standard of design in new development, taking account of local character (Landscape, Townscape, Archaeology, SCDC)</p> <p>Ensure development on the fringe is sympathetic with the existing urban design and does not block views of the city (Landscape, Townscape, Archaeology, SCDC)</p>	<p>Site is located within the Bedfordshire and Cambridgeshire claylands. Key characteristics include gently undulated topography and plateau areas, village edge grasslands, variable number and quality of hedgerow trees, diversity of buildings including brick, thatch and stone.</p> <p>Development may impact on extent of grassland fringe around Girton village and on the number of hedgerow trees.</p>
<p>Ensure that archaeological heritage is safeguarded (Landscape, Townscape, Archaeology, SCDC)</p> <p>Objective sufficiently broad to address issues represented by English Nature, that entire historic environment including undesignated and unscheduled archaeology and historic landscape character.</p>	<p>Historic features in south west corner of site, including retained elements of the historic Cambridge West Fields and Impington Open Field.</p> <p>Significant oak tree in centre of site.</p>
<p>Ensure development in the Cambridge fringe is sympathetic with the existing urban design and does not block views of the city (Landscape, Townscape and Archaeology, SCDC)</p> <p>Need to ensure that the historic character of city retained (Maintain Cambridge as an attractive place to live, work and visit, CCC)</p>	<p>Development on ridge may block views eg views of defining local landmarks that give Cambridge its 'sense of place' eg Girton College, Girton Church and St John's College Chapel. Ensure views of historic centre are maintained.</p> <p>Visually important rising landform of the Girton ridge between Washpit Brook and the brow of the slope at the 20metre AOD contour, development may affect sweep of open, rising land.</p> <p>Development may affect approach and setting to city and affect quality of landscape.</p> <p>Development into greenbelt will need to provide adequate gap between Cambridge city and the village of Girton to prevent coalescence of these settlements. Ensure green corridors maintained, linking the city to its rural setting</p> <p>Consider height and mass of buildings and landscaping and impact on perception of green belt gap.</p> <p>The spatial layout is important, the proximity of the development to surrounding houses will impact on the character of the development and the existing settlements, including the setting of the city.</p>



<p>Promote useage of renewable energy (Climate change and pollution, SCDC)</p> <p>Energy generation from renewable sources has not increased in the District since 1999 (Baseline assessment SCDC).</p>	<p>Ensure renewable energy initiatives are put in place for new development.</p>
<p><b>Social</b></p>	
<p>Ensure existing open space is protected and enhanced.</p> <p>Ensure good quality open space is provided within new developments. (Landscape, Townscape, Archaeology, SCDC)</p> <p>Need to ensure existing open space protected and enhanced, and adequate and readily accessible open space (Maintain Cambridge as an attractive place to live, work and visit, CCC)</p> <p>Number of sports pitches available for public use per 1000 people, 1.33 in 2004 (Baseline assessment SCDC)</p>	<p>South Cambridgeshire does not compare favourably to countrywide levels with regards open space. New strategic open spaces are being planned as part of strategic housing developments.</p> <p>Will the school sports fields be available for public use?</p> <p>Landscaping options differ in access to open spaces.</p>
<p>Widen access to the public transport network, promote accessibility through community transport schemes.</p>	<p>Options include roads predominantly for public transport and cyclists.</p>
<p>Ensure adequate provision for walkers, cyclists and horse-riders in dew developments (Health Communities SCDC)</p>	<p>Options include roads predominantly for public transport and cyclists</p> <p>Landscaping options include varying amounts of public access to open space and green corridors.</p>
<p>Provide access to healthcare facilities, and other community facilities for disadvantaged groups.</p> <p>High elderly populaton evident in district (Healthy Communities, SCDC)</p> <p>Need to ensure equal access to services and facilities for all members of the community (Provide people with a fulfilling occupation and good livelihood, CCC)</p>	<p>Ensure that cumulative impact of residents needs in new developments do not adversely effect service provision in local area. Ensure adequate services provided and maintained.</p>
<p>Need for greater number of smaller dwellings in district.</p>	<p>Consideration for plan design specifications. Will impact on density of development.</p>

Economic	
<p>Need to ensure employment provision meets the needs of all, including the unskilled (Provide people with a fulfilling occupation and good livelihood, CCC)</p> <p>Although the district has very low unemployment, there are pockets of high unemployment relative to the district. There are significant income inequalities (Economic Activity, SCDC)</p> <p>Ensure that infrastructure and investment needs of 'flagship' sectors are balanced against other manufacturing, and service sectors (Economic Activity, SCDC)</p>	<p>Balance needs to be struck between using land for development and provision of housing and employment. A relevant consideration in this balance is the type of employment provided. Development on the site will provide employment for a specific sector rather than mixed manufacturing/services.</p> <p>Will the development provide employment for people already living in close proximity to the site, or bring in people from further away?</p> <p>Take into consideration employment provision at other sites at the Cambridge North Fringe, Northstowe and Cambridge East.</p>
<p>A number of larger villages in the District act as rural centres, but are only appropriate locations for shops which serve the local catchment area. New developments will require additional shopping facilities at an appropriate level, in order to sustainably serve the needs of new residents (Economic Activity SCDC)</p>	<p>Many small villages in the district have limited services available locally (baseline assessment SCDC). Ensure adequate facilities provided and are appropriate for local catchment.</p>
<p>Key issues: a balance needs to be struck between competing objectives, e.g. green space and greenbelt development and need for housing and economic interests. Integration of new development with existing settlements and communities.</p>	

## 5 TESTING THE AAP OBJECTIVES

5.1.1 The proposed objectives of the AAP set out what it is aiming to achieve in spatial planning terms and set the context for the development of options for the AAP (i.e. alternative means of achieving the objectives).

5.1.2 It is important for the objectives of the AAP to be in accordance with sustainability principles. With this in mind, the Guidance recommends that the objectives should be tested for compatibility with the SA objectives. The AAP objectives also need to be compatible with each other, and the SA objectives will be one way of checking for this.

5.1.3 The Guidance suggests using a matrix to compare the plan objectives with the SA objectives. The North West Cambridge AAP draft report sets out 13 objectives and describes these as option 8.1. The numbering does not give priority to any one objective.

- (1) To ensure sustainable development;
- (2) To identify a new Green Belt boundary which allows for the development of the site without fundamentally undermining the purposes of the Green Belt ;
- (3) To provide an appropriate landscape setting and high quality edge treatment for Cambridge;
- (4) To ensure appropriate separation between Cambridge and the village of Girton to maintain village character and identity;
- (5) To create a new community which respects and links with adjoining communities;
- (6) To create a satisfactory mix of uses, taking into account:  
 Identified University-related uses  
 The need for Key Worker housing with the emphasis on University and College staff;
- (7) To maximise walking and cycling and public transport use;
- (8) To determine what transport infrastructure is needed to link the development to key destinations in Cambridge and to the wider network and how it is to be delivered;
- (9) To provide standards for infrastructure provision including renewable energy, open space and car and cycle parking;
- (10) To determine the level, type and general location of community uses needed to satisfactorily serve the development;
- (11) To determine appropriate phasing of development taking into account that development should only proceed when the University can prove the need for it;
- (12) To ascertain what funding and investment is available to secure the infrastructure needs of the development;
- (13) To protect existing wildlife and secure a net increase in biodiversity

5.1.4 Table 5 ‘tests’ each of these objectives against each of the SA objectives.

Key:

+	Objectives are compatible	?	Uncertain relationship	-	Objectives are not compatible	X	No relationship
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Table 5. Appraisal of Masterplan objectives vs. SA objectives

		A A P O b j e c t i v e s												
		1	2	3	4	5	6	7	8	9	10	11	12	13
Sustainability Objectives	1.1	+	-	+	+	-	-	+	?	?	X	+	X	+
	1.2	+	X	X	X	-	-	X	+	+	X	+	+	+
	1.3	+	X	X	X	-	-	X	X	X	+	+	+	+
	2.1	+	-	+	+	-	-	+	?	?	X	+	X	+
	2.2	+	-	+	+	-	-	+	?	?	X	+	X	+
	2.3	+	+	+	+	-	-	+	+	?	X	+	X	+
	3.1	+	-	+	+	-	-	+	?	?	X	+	X	X
	3.2	+	+	+	+	+	+	+	?	+	+	+	+	+
	3.3	+	+	+	+	+	+	+	?	+	+	+	+	X
	4.1	+	X	X	X	X	X	+	-	?	X	+	+	+
	4.2	+	X	X	X	X	X	X	X	X	X	+	+	+
	4.3	+	-	X	X	X	X	X	-	?	X	+	+	+
	5.1	+	X	X	X	+	+	+	?	+	+	X	+	+
	5.2	+	X	X	X	+	+	+	X	X	+	X	+	X
	5.3	+	+	+	-	-	-	+	?	+	+	+	X	+
	6.1	+	+	?	?	+	+	+	+	+	+	+	+	X
	6.2	+	X	X	X	+	+	+	?	X	+	X	X	X
	6.3	+	+	?	?	+	+	+	X	X	+	+	+	-
	6.4	+	X	?	?	+	+	+	+	X	+	+	X	+
	7.1	+	+	?	?	+	+	+	+	+	+	+	+	X
7.2	+	+	?	?	+	+	+	+	+	+	+	+	X	
7.3	+	+	?	?	+	+	+	+	+	+	+	+	X	

## 5.2 Summary of Appraisal of Objectives

- 5.2.1 The worst performing objectives are 5 and 6 (To create a new community which respects and links with adjoining communities and to create a satisfactory mix of uses ). As expected the AAP objectives which concentrate on the need for a new development perform badly against the environmentally focused SA objectives. Tensions between some economic development objectives and environmental objectives are inevitable and reconciliation of the two pillars of sustainable development will be required.
- 5.2.2 Other AAP objectives perform well or do not impact upon the SA objectives. Furthermore AAP objectives perform well against the economically focussed SA objectives. Finally, the performance of AAP objectives which address transport infrastructure is largely uncertain and will require more information from the options in order to progress the SA further.
- 5.2.3 Overall the appraisal of the AAP objectives highlights that - some trade off of environmental objectives will be required in order to deliver the AAP. In particular on resource use, habitat, landscape and townscape character, open space and greenhouse gases. Mitigation measures will be required to reduce these potentially negative impacts.

## 6 APPRAISAL METHODOLOGY

### 6.1 Introduction

6.1.1 SA centres on the consideration of different **options**. The draft report on Issues and Options for the North West Cambridge Area Action Plan sets out a series of options organised around the following headings:

- Landscape, setting and the Green Belt
- Housing
- Employment
- Travel
- A New Local Centre
- Recreation and Open Space
- Energy
- Drainage
- Planning and Implementation

In addition, single options are given for:

- A vision for the area
- Objectives (assessed in section 5)
- Archaeology
- Biodiversity
- Construction Process/Spoil
- Water conservation

- 6.1.2 This stage of the SA process involves assessing the options against the SA framework – essentially the SA objectives (see Table 4). This reflects the Guidance which states that, *“The options need to be compared with each other and with the current social, environmental and economic characteristics of the area which is subject to the DPD and the likely future situation without a DPD. In doing so they need to be tested against the SA framework”*.
- 6.1.3 Options can be described as the range of rational choices open to plan-makers for delivering the plan objectives. In line with the Guidance this report considers the term “options” to be synonymous with the term “alternatives”.
- 6.1.4 The need to consider and appraise options stems partly from the requirements of the SEA Directive:






**Under the SEA Directive, plan and programme proponents should ensure that: “reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated” (Article 5(1)) and the Environmental Report should include “an outline of the reasons for selecting the alternatives dealt with” (Annex I(h)).**

- 6.1.5 It should be noted that it is not the role of the SA to determine which of the options from a given set should be chosen as the basis for moving forward; SA simply provides decision-makers with information to help inform their decision.

## 6.2 Appraisal methodology

- 6.2.1 The appraisal involved assessing the performance of each option against each SA objective, see table 7 for summary results. The appraisal was a qualitative exercise based on professional judgement on the part of Scott Wilson taking into account the information gathered in the Scoping Report and the background information set out in the draft Issues and Options Report for the North West Cambridge Area Action Plan. The appraisal of the options was carried out in June 2006. As part of the appraisal, Scott Wilson organised a morning meeting with the Cambridge City Council (9<sup>th</sup> June 2006) and a site visit to discuss the implications of some of the proposed options and to gain local insight. In addition, Scott Wilson met with Cambridge University and undertook a site visit (9<sup>th</sup> June 2006).
- 6.2.2 The impacts of the options on each objective were defined as having a significant positive benefit, some positive benefit, moderate adverse impact, negative, uncertain or not significant / no clear link (see Table 6 on p.46). A summary was included for each set of options. This summary included, where appropriate, views on the ‘most sustainable option’ as well as key issues arising, potential mitigation measures, sources of uncertainty and assumptions in making the assessment.

*Table 6: Appraisal scoring symbols*

Shading	Likely effect on the SA Objective
	Significant positive benefit
	Some positive benefit
	Moderate adverse impact
	Negative
	Uncertain or insufficient information on which to determine
<b>X</b>	No significant effect / no clear link



## 7 OPTIONS APPRAISAL FINDINGS

### 7.1 Introduction

7.1.1 This section sets out the key findings from the appraisal of the North West Cambridge AAP options. The draft report on the North West Cambridge AAP sets out a series of options linked to the following headings or **themes**:

- A vision for the area
- Objectives (assessed in section 5)
- Landscape, setting and the Green Belt
- Housing
- Employment
- Travel
- A New Local Centre
- Archaeology
- Biodiversity
- Recreation and Open Space
- Energy
- Construction Process/Spoil
- Drainage
- Water conservation
- Planning and Implementation

7.1.2 The completed appraisal matrix is given below. This summary matrix provides an overview of the general performance of the different options against the SA objectives. As such it provides a 'window' to the rest of the appraisal.

7.1.3 The most appropriate way of using this matrix is to treat it as a summary of the whole SA. It helps to identify issues of importance such as; where the burden of negative impacts lie; which options are characterised by a high degree of uncertainty, and which options perform well. The reader should then turn to section seven and refer to the appraisal tables to obtain more detail on the background to the appraisal scores that they consider most important when deciding upon which options to select.

Table 7. SA matrix – see key on p46

Sustainability Appraisal objectives																														
		7.1	10.1	10.2	10.3	10.4	10.5	11.1	11.2	11.3	11.4	11.5	12.1	12.2	13.1	13.2	13.3	13.4	13.5	13.6	13.7	14.1	14.2	14.3	14.54	14.5	14.6	15.1	15.2	
Environmental	1.1						X	X	X	X	X										X			X	X					
	1.2						X	X	X	X	X										X					X	X	X	X	
	1.3						X	X	X	X	X				X	X	X	X	X	X	X					X	X	X	X	
	2.1						X	X	X	X	X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	
	2.2						X		X	X	X													X	X					
	2.3						X	X	X	X	X											X	X	X	X	X				
	3.1						X	X	X	X	X										X	X	X	X	X	X	X	X	X	
	3.2						X		X	X	X									X	X	X			X	X				
	3.3						X	X													X	X			X					
	4.1																										X	X	X	X
	4.2						X	X	X	X	X				X	X	X	X	X	X	X				X	X	X	X	X	X
	4.3						X	X	X	X	X				X		X	X	X	X	X	X			X	X			X	X
	Social	5.1						X	X	X	X	X	X	X	X	X	X	X	X	X	X						X	X	X	X
5.2			X	X	X	X	X	X				X	X	X	X	X	X	X	X					X	X	X	X	X	X	
5.3							X	X	X	X	X				X		X	X	X	X				X	X					
6.1							X															X	X	X	X	X	X	X	X	
6.2								X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X
6.3								X							X	X	X	X	X	X	X			X						
6.4			X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	
Economic	7.1						X	X	X	X	X										X			X						
	7.2						X	X	X	X	X										X			X						
	7.3						X	X	X	X	X										X			X						

Table 7. SA matrix continued– see key on p46

Sustainability Appraisal objectives		16.1	17.1	18.1	18.2	18.3	18.4	19.1	20.1	20.2	20.3	20.4	20.5	20.6	22.1	22.2	22.3	22.4
Environmental	1.1	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
	1.2	X	X						X	X	X	X	X	X	X	X	X	X
	1.3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2.1	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2.2	X		X	X	X	X	X	X					X			X	X
	2.3	X		X	X	X	X	X	X	X	X	X	X	X			X	X
	3.1			X	X	X	X	X	X	X	X	X	X	X			X	X
	3.2	X	X	X	X	X	X	X	X	X	X	X	X	X				X
	3.3	X	X	X	X	X	X	X	X	X	X	X	X	X				X
	4.1	X	X						X	X	X	X	X	X	X	X	X	X
	4.2	X	X						X	X	X	X	X	X	X	X	X	X
	4.3	X	X				X	X						X	X	X	X	X
	Social	5.1	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
5.2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.3		X	X	X	X	X	X	X	X					X			X	X
6.1		X	X	X	X	X	X	X	X	X	X	X	X	X			X	
6.2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.3		X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
6.4		X	X	X	X	X	X	X	X					X			X	X
Econ-omic	7.1	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
	7.2	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
	7.3	X	X	X	X			X	X	X	X	X	X	X			X	X

**Area Action Plan Key Theme: A Vision for the Area**

**Issue: A Vision for the Area**

**Background:** The option identifies the vision for the site area, outlining the key elements that the plan will seek to include. These include a new University quarter to meet the populations needs, high quality design, development to promote the University as a centre of excellence for education and research, inclusion of a neighbourhood centre, facilities and services and landscaping to enhance and maintain adjacent existing development in Cambridge and Girt on Village

**Assumptions:** N/a

**Option 7.1 Vision.** North West Cambridge will create a new University quarter for Cambridge which will also contribute to meeting the needs of the wider city community. Development will be of the highest quality in keeping with the reputation of the University as a centre of excellence and a world leader within the fields of higher education and research, and will address a wide range of the University's long-term development needs. There will be a new neighbourhood centre which will act as a focus for the development but which will also provide facilities and services for nearby communities. A new landscaped urban edge will be created which will enhance the setting of the City and maintain the separate identity of Girton village.

**Environmental:**

**Uncertainty:** The effects of the option on the environment cannot be determined. Achieving the vision depends on the implementation of the plan. However, if achieved, the vision includes measures to enhance landscape and visual elements of the environment.

**Social:**

**Uncertainty:** The effects of the option on the social objectives cannot be determined. Achieving the vision depends on the implementation of the plan. However, if achieved, site will provide development that meets the community's needs, including a new neighbourhood centre to provide facilities and services for the development and nearby existing communities. The area will also support the areas existing excellence in higher education.

**Economic:**

**Uncertainty:** The effects of the option on the economic objectives cannot be determined. Achieving the vision depends on the implementation of the plan. However, if achieved, the site should provide employment within the research and educational fields, and help support economic growth in the scale of localised shopping and services

**Summary:**

The option is presented in the form of a vision statement. The vision outlines what the councils hope to achieve by the implementation of the Area Action Plan. To achieve the vision the plan must successfully guide the implementation of a range of planning guidance in a sustainable manner. As the detail of the plan will not be known until later in the plan making process, beyond this issues and options stage, the assessment of this option returns unknown outcomes. However, the vision appears consistent with the SA economic objectives but less information on environment and social aspects are provided.

**Cumulative, synergistic and indirect impacts:**

These effects cannot be determined

**Area Action Plan Key Theme: Landscape Setting and the Green Belt**

**Issue: Green Belt, the setting of Cambridge and the Separation of Communities**

**Background:** The spatial footprint of the development varies in extent of greenbelt land used, spatial layout and proximity to nearby settlements, development proximity to, and loss of, ecological and historical features and extent to which the requirements of the University Masterplan are met.

**Assumptions:** Oak tree is conserved across all options. A greater spatial footprint results in greater degree of development. Greater degree of development results in increased resource use and in greater employment opportunities through provision of research facilities. Affordable housing is the priority of the development and a reduced land take option will still provide the desired amount of affordable housing. Services and facilities of a local centre will be reduced on the minimal spatial footprint option, but may be provided within the nearby development.

Option 10.1	Option 10.2	Option 10.3	Option 10.4	Option 10.5
<p><b>Environmental</b>  <u>Predominantly red</u>: This option shows a high level of development and consequently will involve an increased resource footprint relative to lower levels of development. The extent of the spatial footprint impacts significantly on habitats and species, including badgers and habitat near brook and wetlands area. The spatial footprint results in a significant reduction in open space and access to wildlife areas. Areas of historic interest will be lost. Due to a high level of land take in the green belt area, there is risk of merger of new development with village of Girton and the sweep of open rising land and setting of the city will be lost. Some views of Girton College and the historic centre lost due to development on the ridge. Greater development results in more light, noise pollution, greater energy use, greater area of hard surface, which in turn may have drainage and flooding implications.  <u>Dark green</u>: The designated SSSI is well protected with a buffer zone.  <u>Uncertainty</u>: The assessment of objective 3.3 depends on the plan layout, building design and landscaping and of objective 4.2 on waste management and recycling initiatives.</p>	<p><b>Environmental</b>  <u>Predominantly red and orange</u>: This option shows a high level of development and consequently will involve an increased resource footprint relative to lower levels of development. Some ecological impacts of development, including impact on badgers, habitat area in north of site and hedgerows in south. Less impact on wetland area around brook than 10.1. Significant area of open space lost and areas of historic interest lost. Greater access to open space than option 10.1. Significant land take in green belt area, risk of merger of new development with village of Girton. Harm to function of greenbelt to setting of city. Limited development on slope, however views may be blocked to Girton and city.  <u>Light green</u>: Designated SSSI is conserved with a smaller buffer zone than option 10.1  <u>Uncertainty</u>: As 10.1</p>	<p><b>Environmental</b>  <u>Predominantly orange</u>: This options shows mid level of development and therefore a moderate impact on resource use. The spatial footprint will impact to a lesser degree on habitats and species than options 10.1 and 10.2 but this impact remains fairly significant. Rise of land maintained as agricultural land but development would sit prominently at top of slope and views may be blocked to Girton and city. Risk of merger of new development with village of Girton and narrowing of greenbelt gap around city.  <u>Light green</u>: Designated SSSI is conserved with a smaller buffer zone than option 10.1  <u>Dark green</u>: Historic features in south of site maintained.  <u>Uncertainty</u>: As 10.1</p>	<p><b>Environmental</b>  <u>Predominantly orange</u>: As 10.3 with exception of objective 3.2 where narrowing of greenbelt gap is less significant than option 10.3.  <u>Light green</u>: Option will maintain and enhance distinctiveness of landscape. Designated SSSI is conserved with a smaller buffer zone than option 10.1  <u>Dark green</u>: Historic features in south of site maintained.  <u>Uncertainty</u>: As 10.1</p>	<p><b>Environmental</b>  <u>Predominantly dark green</u>: This option shows a low level of development and reduced resource footprint relative to other options. A substantial area of greenbelt maintained and there is minimal ecological impact and impact on undeveloped agricultural land. Views to Girton and the city are maintained. Greater provision of open space and access to wildlife sites. Minimal impact on habitats and species and historic sites. This option will be most likely to conserve badger population on site. Reduced level of development results in less noise, light pollution, minimal energy use.  <u>Light green</u>: Less hard surface relative to initial open land than other options. Designated SSSI is conserved with a smaller buffer zone than option 10.1  <u>Uncertainty</u>: As 10.1</p>

<p><b>Social</b>  <u>Red/orange</u>: Significantly reduced open space available for recreation                  Reduced public access to open space.  <u>Dark Green</u>:                  Will provide affordable housing for low income group. Local centre will be provided  <u>Light Green</u>:                  Local centre provided, however, quality of services and facilities will depend on final development plan.</p>	<p><b>Social</b>  <u>Red/orange</u>: Significantly reduced open space available for recreation, however, greater public access to this than in 10.1.  <u>Dark Green</u>:                  Will provide affordable housing for low income group. Local centre will be provided.  <u>Light Green</u>:                  Local centre provided, however, quality of services and facilities will depend on final development plan.</p>	<p><b>Social</b>  <u>Orange</u>: Reduced open space, however more retained than in 10.1 and 10.2.  <u>Predominantly light/dark green</u>:                  Greater access to open space.                  Will provide affordable housing for low income group.  <u>Uncertainty</u>: Reduced spatial footprint may reduce extent of local services provided at local centre.</p>	<p><b>Social</b>  <u>Orange</u>: Reduced open space, however more retained than in 10.1 and 10.2.  <u>Predominantly light/dark green</u>:                  Greater access to open space.                  Will provide affordable housing for low income group.  <u>Uncertainty</u>: Reduced spatial footprint may reduce extent of local services provided at local centre.</p>	<p><b>Social</b>  <u>Orange</u>: Significantly reduced spatial footprint, will impact on level of services, facilities and employment opportunities.  <u>Predominantly light/dark green</u>: Large area of open space maintained                  Greater access to open space. Will provide affordable housing for low income group.</p>
<p><b>Economic</b>  <u>Dark green</u>: This option accords with the University Masterplan and as such will allow for the full development requirements of the University, including a local centre and a school. These developments, together with research facilities will provide employment opportunities and will improve business development.</p>	<p><b>Economic</b>  <u>Dark green</u>: This option meets development aspirations of University. This will allow for the full development requirements of the University, including a local centre and a school. These developments, together with research facilities will provide employment opportunities and will improve business development.</p>	<p><b>Economic</b>  <u>Light green</u>:                  Accommodates significant amount of University Masterplan. Will provide for some development other than housing but less provision than options 10.1 and 10.2.</p>	<p><b>Economic</b>  <u>Light green</u>:                  Accommodates significant amount of University Masterplan. Will provide for some development other than housing but less provision than options 10.1 and 10.2.</p>	<p><b>Economic</b>  <u>Red</u>: University needs not met.                  Less provision of employment opportunities.                  Less provision of facilities and services at local centre. If not provided, further to travel to nearest local facilities</p>

**Summary:** The relative sustainability of the options is dependent on the balance between the degree of land take and provision of employment opportunities. Although options 10.1 and 10.2 meet the development aspirations of the University, the impact on the character, setting and landscape of the Cambridge and Girton is substantial. Option 10.5 performs well against landscape, ecological and historical interest impacts. Providing the affordable housing requirement is fulfilled in option 10.5 the main area of underperformance is the lack of employment opportunities due to reduced provision of research facilities. Design specifications for option 10.1 could reduce light pollution impact and for options 10.1 to 10.4 could reduce the prominence of buildings on the top of the ridge. Mitigation measures could reduce the resource impact of options 10.1 and 10.2, e.g. use of recycled aggregates, water efficiency measures and energy efficiency.

**Cumulative, synergistic and indirect impacts:** The cumulative environmental impact of options 10.1 and 10.2 will be significant on the immediate local environment in terms of biodiversity, loss of open space and character, setting and landscape. The significant cumulative impact for Option 10.1 lies with the character, setting and landscape, due to: the proximity of the option to the M11; the loss of the sweep of land which is important to the setting of Cambridge and the adverse impact on the character and setting of Girton. The significant cumulative impact for option 10.2 lies with biodiversity and natural heritage impacts due to the amount of land take and the loss of greenbelt fields in the south of the site. Mitigation measures such as building design will decrease the impact of option 10.2 on the landscape, particularly buildings on the higher areas of the site such as the ridge. Option 10.5 will have a cumulative economic impact through the potential loss of employment opportunities both within the proposed research facilities and the services that the larger land take options could accommodate more widely.

**Habitats Directive:** The site is within 10km of a designated SAC. The qualifying criteria are the barbestelle bats, which are known to have a flight line of 20km and require foraging areas that contain hedgerows. The site is a small area within the 20km circumference from the boundaries of the SAC and on its own the site is very unlikely to have an adverse impact on the qualifying criteria. However, development in the region may have a cumulative impact on the foraging area for the bats and the councils may want to consult the county council to assess impacts county wide and whether the cumulative impact of the development would have an adverse impact on the qualifying criteria of the SAC.



**Area Action Plan Key Theme: Housing**

**Issue: Affordable Housing**

Background: The actual housing capacity of the site will ultimately be dependent upon the land which is available for development once the Green Belt boundary and the land requirements of other land uses have been determined. The site would need to accommodate in the order of 2,000 to 2,500 homes plus accommodation for 2,000 undergraduate and postgraduate students if the University's aspirations are to be realised. Affordable housing includes a wide range of housing provided for those who cannot meet their housing need in the open market.

**Assumptions:** The amount of affordable housing will not significantly alter the physical appearance of development on the proposed site.

**Option 11.1** The target for Affordable Housing will be to secure 50% affordable housing as currently set out in the Cambridge Local Plan.

**Environment**

Uncertainty Most objectives are in general not applicable, the option is only relevant to the tenure of accommodation and this alone will have negligible effects on the environment. One area of query is that there is potential for the affordable housing element to be built to a lower quality as market housing to protect profit on the scheme construction. This may have implications for energy efficiency and therefore on objective 4.1, to reduce emissions of greenhouse gases. This can be mitigated by either including some design guidance within the Area Action Plan or referencing separate design guidance / sustainable design and construction guidance used by the councils.

**Social**

Light green: The option indicates that 50% of new housing provided will be available for key workers only. This will help provide affordable accommodation for some members of the community. However, it is indicated that the proposal would not include any socially rented accommodation. Although the option indicates that housing for key workers is where there is most demand the option is not deemed to be fully inclusive and does not provide for a section of the populations housing need.

**Economic**

The percentage of affordable housing reflects the Cambridge Local Plan and therefore the site will not have a significant advantage or disadvantage in terms of building costs and revenue for the developer. As it will be a university development it is in their long term overall economic interest to provide key worker housing

**Summary:**

The option is generally considered sustainable, having negligible environmental and economic effects. Affordable housing should also be of a high quality standard, the proposed mitigation should be significant to ensure that quality is not sacrificed for affordability and as a result producing environmental problems. The text around the option indicates need for key worker housing for people working for the university. The option therefore will not result in socially rented accommodation being provided, which excludes some members of the population from the development.

**Area Action Plan Key Theme: Housing**

**Issue: Housing Density**

**Background:** Other urban extensions to Cambridge such as the Cambridge Southern Fringe and Cambridge East are contributing housing at an overall net density of at least 50 dwellings per hectare (dph). In North West Cambridge the need to make best use of land is more critical because a sensitive area of land is being released from the Green Belt that otherwise would not have been. Higher densities could average around 75 dph.

**Assumptions:** The assessment is based on only the location of higher density buildings within the site, rather than whether they should be permitted, or in what number such buildings should be included.

**Option 11.2** Higher densities will be located away from existing housing and close to the main public transport routes and services and facilities. Lower densities and other College, University or research related buildings with extensive green settings will be located adjacent to existing housing.

**Environment**

**Orange and green:** The option seeks to locate higher density development away from existing development to integrate the new buildings into the existing landscape. This should have strong benefits for landscape character. Another identified s that it may reduce issues of shading of existing properties, which is likely to increase energy usage for heating and lighting in existing buildings. However, the site is of better quality in terms of biodiversity and species richness away from existing areas and therefore greater densities may have greater impacts on biodiversity. For example higher density land uses will bring more people to the western edge of the development, which could result in direct damage to biodiversity. Impacts from shading as a result of construction of taller buildings may also be noted.

**Social**

**Light green:** This option would increase accessibility to local services for a large proportion of residents, including increased accessibility to public transport. The option would also encourage a healthy lifestyle including travel choices, this would be due to the proximity of local services and the ability of residents to walk and cycle to access local services.

**Economic**

N/A

**Summary:**

The construction of higher density buildings away from existing buildings will be beneficial for integration with existing buildings and result in a less visually cluttered and displeasing landscape than there may otherwise have been. However placing these buildings in proximity to areas with biodiversity interest may also have negative effects. To avoid these effects the requirement of development to undergo ecological assessment and daylight assessment should be considered for inclusion within the DPD.

<b>Area Action Plan Key Theme: Housing</b>		
<b>Issue: Relationship between University Housing, Affordable Housing and market housing</b>		
<p><b>Background information:</b> The site would need to accommodate approx. 2,000 to 2,500 homes plus accommodation for 2,000 undergraduate and postgraduate students if the University’s aspirations are to be realized. It is generally accepted good practice for affordable housing to be distributed in small clusters within a development to encourage social inclusion and help create a mixed and integrated community. In this case, however, given the special needs of the University for key worker housing, options do arise. Student accommodation has different characteristics and needs. It is usually built to a high density within a green setting, but with very limited car parking enforced by a system of proctorial control over car ownership operated by the Colleges.</p>		
<p><b>Assumptions:</b> Students and market housing residents may have different time schedules therefore impact on noise levels at different times of the day and night. Perception of anti-social behaviour and low level disorder associated with student housing, may impact on other residents. Student car use would be easier to control in a distinct area. Students would prefer to live in a distinct University quarter on the site.</p>		
<p><b>Option 11.3</b> The various components of housing development, Student accommodation, University key worker and market housing will be mixed and integrated across the site.</p>	<p><b>Option 11.4</b> Student accommodation, and University key worker housing will be developed as a separate and distinct University quarters, whilst the University key worker and market housing will be mixed and integrated across the site.</p>	<p><b>Option 11.5</b> Student accommodation and University key worker housing will be developed as a separate and distinct University quarter within the site</p>
<p><b>Environment</b>  <u>Uncertainty:</u> Possibly greater noise pollution impacts for different groups in community. Impact of mixed housing on resident’s satisfaction with where they live will depend on density and layout of housing.</p>	<p><b>Environment</b>  <u>Light green:</u> May be easier to control and reduce student car use. Possibly less noise impacts due to separate housing for different groups. Will ensure students can live together in a distinct area, whilst not completely dividing the University population from the market housing. May increase student satisfaction with neighbourhood.</p>	<p><b>Environment</b>  <u>Light green:</u> May be easier to control and reduce student car use. Possibly less noise impacts due to separate housing for different groups. Students may prefer to live in a separate area to other residents, may increase their satisfaction with neighbourhood.</p>

<p><b>Social</b>  <u>Dark green</u>: Will encourage community cohesiveness and social inclusion. May encourage engagement with community activities. Level of engagement may depend on design and its impact on student-non-student relations.  <u>Uncertainty</u>: Perception of anti-social behaviour and low level disorder associated with student housing, may impact on other residents. May impact on sharing of facilities between University students and other residents.</p>	<p><b>Social</b>  <u>Dark green</u>: Maintains some mix of housing and community cohesiveness.  <u>Uncertainty</u>: Perception of anti-social behaviour and low level disorder associated with student housing, may impact on other residents. May impact on sharing of facilities between University students and other residents.</p>	<p><b>Social</b>  <u>Orange</u>: Impact on engagement in community activities due to separation of community.  <u>Dark green</u>: Provides affordable housing.  <u>Uncertainty</u>: Perception of anti-social behaviour and low level disorder associated with student housing, may impact on other residents. May impact on sharing of facilities between University students and other residents.</p>
<p><b>Economic</b> N/A</p>	<p><b>Economic</b> N/A</p>	<p><b>Economic</b> N/A</p>
<p><b>Summary:</b> Option 11.2 performs best and strikes a balance between enabling the student population to live in a distinct area, whilst not completely separating the University population from the market housing. Whether the student population is undergraduate or postgraduate and the design and planning of the housing will determine the extent of the sustainability issues outlined above.</p>		

<b>Area Action Plan Key Theme: Employment</b>	
<b>Issue: Employment</b>	
<b>Background information:</b> The RPG and Structure Plan identified the requirement of more housing close to Cambridge in order to meet the needs generated by employment growth. Issues for consideration are that significant additional employment in the form of commercial research could undermine the thrust of the overall strategy by fuelling additional housing demand and thus not addressing the main thrust, which is to address the current imbalance of jobs and homes close to Cambridge. A further key issue is that the University considers that an element of commercial employment is necessary for funding its developments and argues that it has the benefit of encouraging the working relationships between academic research and the commercial sector.	
<b>Assumptions:</b> n/a	
<b>Option 12.1:</b> Employment development at North West Cambridge will be limited to the teaching and research institution requirements of Cambridge University and will not include any additional element of commercial research beyond the level which is currently proposed in the Cambridge Local Plan	<b>Option 12.2:</b> Employment development at North West Cambridge will include a mix of commercial research as well as the teaching and research requirements of Cambridge University to meet the aspirations of Cambridge University.
<b>Environment</b> <u>Uncertainty:</u> Many of the objectives are assessed as uncertain as it is unclear whether the spatial and development footprint would be altered by choosing either option 12.1 or 12.2.	<b>Environment</b> <u>Uncertainty:</u> Many of the objectives are assessed as uncertain as it is unclear whether the spatial and development footprint would be altered by choosing either option 12.1 or 12.2.
<b>Social</b> <u>Light green:</u> This option would not have an indirect impact on demand for additional housing in the area. This option could possibly reduce the total amount of land required for development or increase the amount available for affordable housing. <u>Uncertainty:</u> Many of the objectives are assessed as uncertain as it is unclear whether the spatial and development footprint would be altered by choosing either option 12.1 or 12.2.	<b>Social</b> <u>Orange:</u> Will increase overall demand for housing and impact on the provision of housing in the Cambridge area. <u>Uncertainty:</u> Many of the objectives are assessed as uncertain as it is unclear whether the spatial and development footprint would be altered by choosing either option 12.1 or 12.2.

**Economic**

Light green: Will not provide as diverse employment opportunities as option 12.2. Will not improve business development to the extent of option 12.2.

**Economic**

Dark green: Uses land resource for only a particular type of business development. Will provide more employment opportunities, however, majority will be limited to particular sector and skill set. Will not provide substantial jobs for everyone who wants one outside this sector.

Provides for economic development in a 'flagship' sector. Will support the Cambridge area's position as a world leader in research and technology based industries, higher education and research, particularly through the development and expansion of clusters.

**Summary:** Option 12.2 performs better in economic terms relative to option 12.1. It should be considered, however, that in balancing the use of Greenfield land with development, that the most efficient use of the land is chosen and a decision must be made whether this includes further development of the flagship sector. Option 12.1 will not increase demand for additional housing to the extent of option 12.2. Note that housing is a key issue in the area and the priority of the development.

<b>Area Action Plan Key Theme: Travel</b>			
<b>Issue: A new orbital connecting route</b>			
<b>Background information:</b> These options consider how people will move around the site and gain access to other parts of the City and beyond. To create a sustainable development, policies will need to encourage most journeys within the site to be made by foot and cycle and to promote good links beyond the site by bus and cycle. Policy P9/9 of the Structure Plan recognises the need to accommodate some orbital movements around Cambridge avoiding the city centre and connecting major development sites, employment locations and park and ride sites with priority given to public transport along such routes.			
<b>Assumptions:</b> Roads built for all types of traffic will be wider to accommodate greater traffic flow, therefore greater spatial and resource use impacts. Public transport options give greater opportunity to use more sustainable transport fuels.			
<b>Option 13.1:</b> A new all purpose route will be developed linking Madingley Road and Huntingdon Road. The route will lie within a green corridor within the University's development.	<b>Option 13.2:</b> A new all purpose route will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the development with regard to slower speeds and safe crossings for pedestrians.	<b>Option 13.3:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road.	<b>Option 13.4:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the developments with regard to slower speeds and safe crossings for pedestrians.

<p><b>Environmental</b>  <u>Predominantly red</u>: Development in green corridor, will impact on undeveloped land and likely impact on habitats and species. Increased footprint and resource use impact. Increased noise and air pollution. Will reduce the quality of open space. Increased hard area and impact on drainage.  <u>Uncertainty</u>: Impact on historic features depends on location of road.</p>	<p><b>Environmental</b>  <u>Mix of - Red</u>: Increased footprint and resource use impacts. Will increase noise and air pollution.  <u>Orange</u>: Increased traffic through development relative to 13.4. Increased hard area and impact on drainage.  <u>Light green</u>: Increased open space therefore more opportunity to access wildlife relative to 13.1 and 13.3.  <u>Dark green</u>: Will not impact undeveloped land in green corridor, species and habitats in this area.  <u>Uncertainty</u>: as 13.1</p>	<p><b>Environmental</b>  <u>Predominantly red and orange</u>: Development in greenbelt, will impact on undeveloped land and likely impact on habitats and species. Spatial impact will be decreased relative to 13.1. Will support travel by means other than the car. Reduced spatial footprint therefore less hard area required than 13.1, however greater total hard area relative to 13.2 and 13.4.  <u>Dark green</u>: Will reduce transport emissions and provide greater capability to use more sustainable fuel choices.  <u>Uncertainty</u>: as 13.1</p>	<p><b>Environmental</b>  <u>Predominantly light and dark green</u>: Reduced spatial impact than all other options. Will support travel by means other than the car. Will reduce transport emissions and provide greater capability to use more sustainable fuel choices.  <u>Uncertainty</u>: as 13.1</p>
<p><b>Social</b>  <u>Predominantly red and orange</u>: Will increase risk of road accidents. Will decrease open space and recreational areas. Will not promote public transport use and development.  <u>Uncertainty</u>: Will not promote accessibility to local services by public transport but will increase accessibility for car users.</p>	<p><b>Social</b>  <u>Orange</u>: Will decrease speed of traffic. Decreased risk of road accidents relative to option 13.1. Local air pollution due to cars higher than options 13.3 and 13.4. Will not promote public transport use and development.  <u>Light green</u>: Increased open space.  <u>Uncertainty</u>: Will not promote accessibility to local services by public transport but will increase accessibility for car users.</p>	<p><b>Social</b>  <u>Red</u>: Will decrease open space and recreational areas.  <u>Predominantly light green</u>: Will decrease volume of traffic. Will promote accessibility for all members of society, including the elderly and disabled. Will encourage healthy lifestyles, including travel choices.</p>	<p><b>Social</b>  <u>Light and dark green</u>: Will decrease speed and volume of traffic and therefore risk of road related accidents. Will promote accessibility for all members of society, including the elderly and disabled. Will encourage healthy lifestyles, including travel choices. Increased open space.</p>



<p><b>Economic</b>  <u>Orange</u>: Will not encourage accessibility to local employment by means other than the car.  <u>Light green</u>: improves infrastructure, therefore business development.</p>	<p><b>Economic</b>  <u>Orange</u>: Will not encourage accessibility to local employment by means other than the car.  <u>Light green</u>: improves infrastructure, therefore business development.</p>	<p><b>Economic</b>  <u>Light and dark green</u>: Improves level of investment in key community services and infrastructure, both roads and public transport. Encourages accessibility to local employment by means other than the car.</p>	<p><b>Economic</b>  <u>Light and dark green</u>: Improves level of investment in key community services and infrastructure, both roads and public transport. Encourages accessibility to local employment by means other than the car.</p>
<p><b>Summary:</b> Option 13.4 performs best across all objectives. Options 13.2 and 13.3 balance the use of undeveloped green corridor space and the promotion of public transport. 13.1 is the least sustainable option.  <b>Cumulative, synergistic and indirect impacts:</b> Options 13.1 and 13.3 will have cumulative environmental and social impacts, these will be due to loss of open space, noise and air pollution. The most significant cumulative impact will be on local residents living in proximity to the orbital route.</p>			

Area Action Plan Key Theme: Travel	
<b>Issue: North facing access roads for the M11 at Madingley Road (A1303)</b>	
<b>Background information:</b> Development of North West Cambridge as a whole, including land in South Cambridgeshire, will add to traffic generation to and from this area. The plan therefore needs to consider whether the provision of slip roads would be appropriate given the level of development which is proposed beyond that in the Cambridge City Local Plan.	
<b>Assumptions:</b> n/a	
<b>Option 13.5:</b> North facing access roads will be provided in order to mitigate significant adverse traffic impacts from development (subject to their benefit or otherwise to be determined through transport studies)	<b>Option 13.6:</b> North facing access roads will not be provided as part of the development
<p><b>Environment</b>  <u>Red:</u> This option will increase use of undeveloped land and impact on resource use. Will impact on quantity of open space, landscape and ecological and historical features. It will increase noise and local air pollution. Greater area of hard surface will impact on water drainage.</p> <p>This option encourages car use.</p>	<p><b>Environment</b>  <u>Dark Green:</u> Ensures open space maintained, does not encourage more car use or bring about increased levels of noise or air pollution.</p>
<p><b>Social</b>  <u>Red:</u> This option will increase risk of road accidents. Will reduce the quality of open space.  <u>Uncertainty:</u> May impact on accessibility to key local facilities, depends on routes, other options e.g. provision of local facilities on site.</p>	<p><b>Social</b>  <u>Dark Green:</u> Does not impact on risk of road accidents or reduction in quality of open space.  <u>Uncertainty:</u> May impact on accessibility to key local facilities, depends on routes, other options e.g. provision of local facilities on site.</p>
<p><b>Economic</b>  <u>Orange:</u> Undermines promotion of public transport. Will not encourage accessibility to local employment by means other than the car.  <u>Dark green:</u> May increase opportunity for people to commute to work in area.</p>	<p><b>Economic</b>            N/a</p>
<p><b>Summary:</b> The environmental impact of option 13.5 is significant. Option 13.5 may increase accessibility to the area, but it also encourages car use and thereby undermines the promotion of public transport. Note that option 13.6 may result in increased congestion in local area.</p> <p><b>Cumulative, synergistic and indirect impacts:</b> The cumulative environmental and social impacts of option 13.5 will have an adverse impact on local residents due to loss of open space, noise and air pollution.</p>	

**Area Action Plan Key Theme: Travel**

**Issue: Cycle Links**

**Background:** The development of North West Cambridge offers the opportunity to improve cycle linkages, in line with the Supplementary Planning Guidance 'Proposed Future Expansion of the Cambridge Cycle Network' produced by Cambridge City Council. Possible improvements include an orbital cycle route around the north western part of the City between Histon Road and Madingley Road, linking a number of key locations. There is also the opportunity to consider further links proposed beyond the boundaries of the AAP, including the Cambridge Northern Fringe, West Cambridge and the Addenbrookes area. This will add to a comprehensive network around the City, as well as linking the new community to the wider countryside for recreation.

**Assumptions:** Providing bike routes to link key locations will provide a network for use. The assumption must be that this is sufficient to ensure that a proportion of the population will therefore use their bikes or be encouraged to purchase and use bikes.

**Option 13.7:** New and improved cycle links will be provided as part of the development

**Environment**

**Light and dark green:** The option will provide the opportunity to promote sustainable modes of transport. This will help to produce emissions for the development that are lower than they would otherwise be if movements were made by private transport. This will reduce the impact on biodiversity from what it would otherwise be.

**Social**

**Dark green:** The provision of cycle routes will help to encourage use and as a result a section of the population will see health benefits from increased exercise. The option also promotes accessibility by means other than the car making environmentally better modes of transport preferable to private vehicles.

One area of concern is crime. Bikes are a mode of transport that can be stolen if not secured. An increase in bikes may lead to an increase in crime. Also cycle routes could become areas for criminal opportunity if not designed correctly. The plan should provide mitigation for this by ensuring that cycle routes are well lit, overlooked by adjacent buildings, and that secure facilities to lock away bikes are provided onsite.

**Economic**

**Dark green:** The option promotes accessibility to local employment by means other than the car, which will help people gain access to work in a sustainable manner.

**Summary:**

The inclusion of cycle links within the development area is considered to have sustainability advantages and this option is viewed as having economic and social benefits as well as environmental. Mitigation has been proposed in the form of undertakings within the plan to provide secure bicycle parking and to provide measures to design out crime from cycle routes.

**Cumulative, synergistic and indirect impacts:**

Indirect positive benefits on biodiversity have been noted. Reducing the potential emissions that the site may produce will have a reduced effect on biodiversity through better air quality, and will help protect the integrity of designated sites within the region.

<b>Area Action Plan Key Theme: A New Local Centre</b>	
<b>Issue: Location and scale of the local centre and relationship with adjacent areas</b>	
<p><b>Background information:</b> The development of North West Cambridge is of such a scale that it will require the provision of a local centre, especially given the lack of such provision in this part of Cambridge. The local centre will provide a focus for services and facilities. It may also provide services and facilities for adjacent parts of the City such as the University’s development at West Cambridge, south of Madingley Road. However, it will be important to ensure that existing services, especially in Girton village are not put at risk. A key issue is the relationship of the local centre to the proposed development between Huntingdon Road and Histon Road and whether that development should provide for all of its own needs in its own local centre or whether some community facilities to serve both developments would be best located close to Huntingdon Road to serve both sites.</p>	
<b>Assumptions:</b> N/a	
<p><b>Option 14.1:</b> A local centre will be established, close to the heart of the new development to serve primarily the needs of the development between Huntingdon Road and Histon Road.</p>	<p><b>Option 14.2:</b> A local centre will be established close to the heart of the new development to serve primarily the needs of the development between Madingley Road and Huntindgon Road, with some common community services and facilities to be located close to Huntingdon Road on either the north or south of the road.</p>
<p><b>Environment</b>          Mix of – <b>red:</b> Greater use of transport to gain access to local services and facilities, resulting in higher pollution levels  <b>Orange:</b> Will not increase diversity of townscape within development.  <b>Light green:</b> May ensure less undeveloped land used.  <u>Uncertainty:</u> Impact on species, habitats and resource use will depend on extent of development and location.</p>	<p><b>Environment</b>  <b>Orange:</b> Will require two separate sites for the local centre, one in the middle of the new development and one next to the road for shared facilities with the adjacent new development. Will possibly require more land for two locations. Increase in area of hard surface resulting in drainage impacts.  <b>Dark green:</b> Will increase the diversity of development, therefore positive landscape impacts. Less need to travel to local services and facilities.  <u>Uncertainty:</u> Impact on species, habitats and resource use will depend on extent of development and location.          Objective 3.3 assessment will be dependent on specific plan and design specifications.</p>

<p><b>Social</b>  <u>Red</u>: Located in adjacent new development. Will be accessible to those able to travel the distance to the other development.  <u>Orange</u>: Less encouragement for engagement with community activities.  <u>Light green</u>: Will provide more land for housing and other development between Madingley and Huntingdon Roads.  <u>Uncertainty</u>: Crime level associate with communal areas uncertain. Impact on open space depends on whether area will be developed irrespective of local centre.</p>	<p><b>Social</b>  <u>Dark green</u>: Increases level of services and facilities available locally. If second local centre facilities built on adjacent development land, less impact on site between Madingley and Huntingdon roads and possible wider provision of services/facilities.  <u>Light green</u>: Encourage integration between two communities.  <u>Orange</u>: May impact on provision of housing  <u>Uncertainty</u>: Crime level associate with communal areas uncertain. Impact on open space depends on whether area will be developed irrespective of local centre.</p>
<p><b>Economic</b>  <u>Red</u>: Does not improve level of investment in key community services.  <u>Orange</u>: Does not encourage business development, other opportunities may be available through alternate land use, e.g. research facilities. Will not improve competitiveness and adaptability of local economy.</p>	<p><b>Economic</b>  <u>Dark green</u>: Will improve substantially the level of investment in key community services and infrastructure  <u>Light green</u>: Will improve business development, Will improve the range of employment opportunities</p>
<p><b>Summary:</b> Option 14.2 generally performs better across all relevant objectives, there are particular benefits across social and economic objectives. With regards environmental objectives, there is potential benefit of option 14.1 associated with the loss of undeveloped land. This benefit of option 14.1 (objective 1.1) will depend on whether the land that would have been allocated to a local centre is left undeveloped or whether it would be used for other development.</p>	

<b>Area Action Plan Key Theme: A New Local Centre</b>	
<b>Issue: The need for a secondary school at North West Cambridge</b>	
<p><b>Background information:</b> The County Council is currently undertaking a review of Secondary School Catchment Areas for Cambridge and as part of this they have indicated that there will be a need for a secondary school to serve the whole North West quadrant. The new school would need good access to new orbital links to enable staff, children and parents to get to school. School sites can require around eight hectares of land and need level ground for playing fields. A decision is likely to be confirmed by the County Council later in 2006. A key issue is to identify which sector the school should be located in within the quadrant. This could either be on land between Madingley Road and Huntingdon Road or on land between Huntingdon Road and Histon Road.</p>	
<p><b>Assumptions:</b> The options are best assessed as a comparison between the two options to have a secondary school onsite or offsite. If a schools is not provided on site it is also assumed that the land made available by this would be zoned for housing. It is also assumed that the catchment area for the school will encompass the development site and surrounding areas.</p>	
<p><b>Option 14.3: land between Madingley Road and Huntingdon Road is an appropriate location for a secondary school.</b></p>	<p><b>Option 14.4: Land between Madingley Road and Huntingdon Road is not an appropriate location for a secondary school.</b></p>
<p><b>Environment</b>  <u>Orange:</u> A school is likely to use more energy and water than housing on the same site, but exactly how much is difficult to determine. Mitigation in the form of on site renewable energy generation and water reuse will help minimise negative effects</p> <p><u>Uncertainty:</u> It is possible that the inclusion of a secondary school on site will improve the satisfaction of people with their neighbourhood and would make the assessment with SA objective 3.3 positive, but this is still uncertain.</p> <p>The volume of housing suggested in the issues and options paper (up to 2,500 units) would indicate a significant amount of pupils could potentially come from the locality. However, some pupils and staff will come from offsite. Therefore it is likely some significant traffic generation and as a result pollution will result from this option. However, providing a new school will reduce some longer distance trips to schools elsewhere in Cambridge.</p>	<p><b>Environment</b>  <u>Uncertainty:</u> Without a school it is likely the area would be used for housing, consuming some energy and water but less than a school.</p> <p>If a new school is provided offsite, for example close to the adjacent NIAB development, more traffic will be generated from the site but trips from offsite may reduce. However, providing a new school will reduce some longer distance trips to school elsewhere in Cambridge.</p>

<p><b>Social:</b>  <u>Uncertainty:</u> The location of a new school on site will promote cycling for some and exercise at school, hence health benefits, but equally may be too far for other potential students to travel to.</p> <p><u>Dark Green:</u> The option will promote on site accessibility to educational services</p> <p><u>Light green:</u> Schools can often act as a focal point for community activities and as a result of inclusion of a school on site benefits towards SA objective 6.4 are expected</p>	<p><b>Social:</b>  <u>Uncertainty:</u> The location of a new school off site will promote cycling for some that would have otherwise travelled to the on site school, and also exercise at school, equally may be too far for other potential students from the site to travel to.</p> <p><u>Light green:</u> by locating the school elsewhere, an indirect effect will be to provide more land for housing and therefore potentially more key worker housing will be provided on site.</p>
<p><b>Economic:</b>                  Provision of a school on site will provide additional jobs such as teaching posts and support professions. The school will also help promote access to education and training.</p>	<p><b>Economic:</b>                  N/A</p>
<p><b>Summary:</b>                  In summary when considering the location of a new secondary school in terms of its sustainability there are only minor differences between locating it on the site or off site but in the locality. Some benefits will be noted for those who will live in the new accommodation created, but these are counter balanced in some cases by the requirements for pupils who will live off site. However, it can be concluded that the provision of a school is beneficial for sustainability and inclusion of measures to ensure this within the DPD will help to promote sustainability.</p> <p><b>Cumulative, synergistic and indirect impacts:</b>                  An indirect effect of not including a school in the DPD would be to create more space for housing which in turn would help provide more housing for key workers.</p>	



<b>Area Action Plan Key Theme: A New Local Centre</b>	
<b>Issue: The need for a secondary school at North West Cambridge</b>	
<b>Background information:</b> Should the need for a secondary school be confirmed, an issue to consider is whether it would be appropriate to locate playing fields in land to be retained as or returned to the Green Belt, for example, in the strategic gap shown in the options maps.	
<b>Assumptions:</b> n/a	
<b>Option 14.5:</b> That if a secondary school is to be provided that none of its playing fields are located in the strategic gap separating Cambridge from Girton	<b>Option 14.6:</b> That if a secondary school is to be provided that its playing fields can be located in the strategic gap separating Cambridge from Girton
<p><b>Environment</b>  <u>Dark and light green:</u> More open space and undeveloped land retained within development. Habitats and species retained in open space provided for playing fields within development. Greater positive benefit for general landscaping of development.  <u>Uncertainty:</u> Impact on opportunities to access wild places depends on public access to playing fields.</p>	<p><b>Environment</b>  <u>Red:</u> Greater total area of land developed.  <u>Orange:</u> Less total open space provided therefore adverse landscaping impacts. Greater area of hard surface and greater impact on natural drainage.  <u>Uncertainty:</u> Impact on opportunities to access wild places depends on public access to playing fields if they are within development.</p>
<p><b>Social</b>  <u>Uncertainty:</u> Positive benefits from access to open space depends on whether public will have access to the playing fields. Impact on affordable housing depends on whether use of land for playing fields would impact on land provided for housing.</p>	<p><b>Social</b>  <u>Uncertainty:</u> Positive benefits from access to open space depends on whether public will have access to the playing fields. Impact on affordable housing depends on whether use of land for playing fields would impact on land provided for housing.</p>
<p><b>Economic</b>  <u>Uncertainty:</u> Playing fields to be located within development which will decrease land available for other development, possible economic impacts.</p>	<p><b>Economic</b>  <u>Uncertainty:</u> More land available for development, may increase provision of services and economic benefits.</p>
<p><b>Summary:</b> Option 14.5 performs well against environmental and social sustainability objectives due to the ecological benefits of retaining some open space within the development and also the landscaping benefits. This would also make more open area available to local residents, should the playing fields be open to the public. Option 14.6 may allow more area for development. If this extra land made available is used for the local centre or research facilities then this option would perform better on economic objectives. At present, it is uncertain how much these factors would be impacted and the decision on options 10.1 to 10.5 would go some way to determining this.</p>	

<b>Area Action Plan Key Theme: Recreation and Open Space</b>	
<b>Issue: Location of the new public open space</b>	
<b>Background information:</b> A key issue is how much open space and recreation provision should be made within the North West Cambridge site. There is scope under the Cambridge City Local Plan for some provision to be made through commuted payments (payments that allow provision to be made off site either by provision on another site or via improvements to an existing facility).	
<b>Assumptions:</b> n/a	
<b>Option 15.1:</b> Open space and recreation facilities should be provided on the site.	<b>Option 15.2:</b> Some of the open space and recreation facilities, could be provided by commuted payments.
<b>Environment</b> <u>Dark and light green:</u> More open space and undeveloped land retained within development. More opportunities for improved access to wildlife.	<b>Environment</b> <u>Orange:</u> Impacts less positive than for option 15.1 due to less open space provision.  <u>Light green:</u> Some open space provided which will have positive impacts on opportunities to access wildlife and on the local landscape.
<b>Social</b> <u>Dark green:</u> Improved quantity and quality of publicly accessible open space and the range of services and facilities such as recreation space.  <u>Uncertainty:</u> Unknown impact on level of affordable housing. This is dependent on whether open space provision will impact on the amount of land available of housing.	<b>Social</b> <u>Light green:</u> Some open space provided, therefore some provision of publicly accessible open space.  <u>Uncertainty:</u> Unknown impact on level of affordable housing. This is dependent on whether open space provision will impact on the amount of land available of housing.
<b>Economic</b> <u>Uncertainty:</u> Unknown impact on level of economic development and provision of services and facilities. This is dependent on whether open space provision will impact on the amount of land available for other development.	<b>Economic</b> <u>Uncertainty:</u> Unknown impact on level of economic development and provision of services and facilities. This is dependent on whether open space provision will impact on the amount of land available for other development.
<b>Summary:</b> Overall, environmental and social benefits to the local environment and community are greater with option 15.1. It should be borne in mind that the strategic location of the open space could enhance the greenbelt area and mitigate against impacts of the development on the townscape, thus retaining some distinctive gap between Cambridge and Girton.	

<b>Area Action Plan Key Theme: Archaeology</b>
<b>Issue: Archaeology</b>
<b>Background information:</b> As might be expected of a site on the fringes of the City there is evidence of continuous development and use from the earliest period. There are no Scheduled Monuments, but a number of sites have been recorded in the Cambridgeshire Sites and Monuments record. An archaeology desk based assessment undertaken in 2001 confirms the potential for archaeology for several periods, notably Roman, with known archaeology, specifically a Roman road running from the east along the northern edges of the area.
<b>Assumptions:</b> n/a
<b>Option 16.1</b> Given the potential of archaeological remains, in accordance with Government policy, suitably qualified persons should be engaged to undertake a fully analytical, archaeological investigation, prior to any development of the site. This will be necessary to facilitate a detailed understanding of the evolution and significance of the site, based on the assumption that any surviving remains should be preserved in situ, or at least subject to detailed recording following excavation. The results of the study should be published and made available for public examination.
<p><b>Environment</b></p> <p><u>Light green:</u>          Should this management plan be implemented, there could be positive impacts for the protection of sites of historical, archaeological or cultural interests, should there be any designations following an archaeological investigation. The extent or significance of such positive impact would be dependent on how the findings of such an investigation are used and how such information would inform any development plans and preferred option mitigation measures.</p>
<p><b>Economic</b>          N/a</p>
<p><b>Social</b>          N/a</p>
<b>Summary:</b> This measure is overall deemed to have positive environmental benefits relative to the absence of such measures. The extent or significance of such positive impact would be dependent on how the findings of such an investigation are used and how such information would inform any development plans and preferred option mitigation measures.

<p><b>Area Action Plan Key Theme: Biodiversity</b></p>
<p><b>Issue: Biodiversity</b></p>
<p><b>Background information:</b> The majority of the site is made up of improved pasture and arable fields with limited amounts of hedgerows which are predominantly Hawthorn and Blackthorn with small amounts of other species. Currently these areas do not support significant levels of wildlife. However, there are some parts of the area where there is more woodland, hedgerows and ponds which do provide habitats. There is therefore a need to respect and retain existing habitats and considerable potential for enhancing the wildlife value of the area.</p> <p>The most significant features providing rich habitats for wildlife occur in the southern and south western parts of the site. There are three small copses, each with mature trees and a dense understorey. The Washpit Brook is the main watercourse within the area although its wildlife value is limited by the current management regime and the close proximity of the M11. A badger sett has been recorded within the area. Two ponds in the south of the area have records of Great Crested Newts although further survey is required to confirm this.</p> <p>There is a geological Site of Special Scientific Interest (SSSI) within the site at the Traveller's Rest Pit.</p>
<p><b>Assumptions:</b> n/a</p>
<p><b>Option 17.1</b> The AAP provides the opportunity to ensure that existing habitats are protected or enhanced by improved planting and management and to create new habitats so that, despite development there is an overall increase in biodiversity. The AAP can establish a strategy based on:</p> <ul style="list-style-type: none"> <li>• Existing areas of woodland, hedgerows and mature trees being retained;</li> <li>• Improvements in the management of the areas where there is to be no built development could offset the loss of habitats elsewhere within the site;</li> <li>• Providing habitats within the development through the careful design and management of open spaces and the use of building materials and incorporating wildlife features within the built environment;</li> <li>• Ensuring that all wildlife areas connect to each other to provide a network; and</li> <li>• Water features, including ponds and the Washpit Brook being managed as a wetland habitat to maximize their biodiversity value. Complementary marginal habitats could also be provided where space allows.</li> </ul>
<p><b>Environment</b>  <u>Light green:</u>          This strategy would overall have positive benefits on biodiversity, conservation of habitats and people's access to wildlife, relative to no such strategy being in place. However, the significance and extent of such positive impacts is unknown since preferred options are unknown and the extent to which such a strategy could mitigate against any adverse impacts of these is uncertain at this stage.</p>
<p><b>Social</b>          N/a</p>

**Economic**

N/a

**Summary:**

This strategy would overall have positive benefits on biodiversity, conservation of habitats and people's access to wildlife, relative to no such strategy being in place. However, the significance and extent of such positive impacts is unknown since preferred options are unknown and the extent to which such a strategy could mitigate against any adverse impacts of these is uncertain at this stage.

Area Action Plan Key Theme: Energy			
Issue: Source of energy			
Background information: The scale of the development at North West Cambridge enhances the potential for a comprehensive approach towards the provision of energy. Policy 8/16 of the new Cambridge Local Plan already required 10% on site of energy requirements to be met from renewable energy sources. A similar policy is contained in the Submission Draft South Cambridgeshire LDF.			
Assumptions: n/a			
<p><b>Option 18.1:</b> The AAP should require housing and other developments to provide at least 10% of the development's total predicted energy requirements on site, from renewable energy sources.</p>	<p><b>Option 18.2</b> The AAP should require housing and other developments to provide at least 20% of the development's total predicted energy requirements on-site, from renewable energy sources.</p>	<p><b>Option 18.3</b> That in addition to renewable energy requirements set out in Option 18.1 and 18.2 that the AAP strongly support and if possible, required the provision of combined heat and power to meet the energy needs of a considerable proportion of the development at North West Cambridge.</p>	<p><b>Option 18.4</b> That if a combined heat and power scheme is not suitable that the AAP strongly support, and, if possible, require the provision of a district heating scheme to meet the heating needs of a considerable proportion of the development at North West Cambridge.</p>
<p><b>Environment</b>  <u>Light green:</u> Will, to some extent, reduce emissions of greenhouse gases and increase energy use from renewable sources.  <u>Uncertainty:</u> Extent of development area required for energy source may impact on natural drainage.</p>	<p><b>Environment</b>  <u>Light green:</u> Will reduce emissions of greenhouse gases to a greater extent than option 18.1. Will double use of energy from renewable sources relative to option 18.1.  <u>Uncertainty:</u> Extent of development area required for energy source may impact on natural drainage.</p>	<p><b>Environment</b>  <u>Dark green:</u> Will reduce emissions of greenhouse gases. Leads to an increased proportion of energy and other resources being met from renewable sources.            Will increase resource recovery.  <u>Uncertainty:</u> Extent of development area required for energy source may impact on natural drainage.</p>	<p><b>Environment</b>  <u>Light green:</u> Will reduce emissions of greenhouse gases but not to the extent of option 18.3. Could possibly lead to an increased proportion of energy and other resources being met from renewable sources.</p>
<p><b>Social</b>            N/a</p>	<p><b>Social</b>            N/a</p>	<p><b>Social</b>            N/a</p>	<p><b>Social</b>            N/a</p>
<p><b>Economic</b>            N/a</p>	<p><b>Economic</b>            N/a</p>	<p><b>Economic</b>  <u>Light green:</u> Will improve the level of investment in key community services and infrastructure. Will improve business development and enhance competitiveness.</p>	<p><b>Economic</b>  <u>Light green:</u> Will improve the level of investment in key community services and infrastructure. Will improve business development and enhance competitiveness.</p>

**Summary:** Option 18.3 performs best on relevant sustainability objectives due to reduced greenhouse gas emissions, increased resource recovery, greater energy sourcing from renewables and enhanced competitiveness. The relative sustainability of option and 18.4 in terms of increased resource recovery and greater energy sourcing from renewables will be dependent on the type of energy harnessed for the district heating system and the extent to which each it would provide energy to the development.

<b>Area Action Plan Key Theme: Construction Process</b>
<b>Issue: Construction Process</b>
<b>Background information:</b> Development on this scale will generate a considerable amount of spoil and waste building materials. The disposal of this material can have implications for amenity, public safety, and the landscape setting of Cambridge and Girton if it is not properly planned.
<b>Assumptions:</b> n/a
Option 19.1 The construction process will need careful management in order that disruption to the adjacent parts of the City and Girton is avoided. Avoidance of impact will be the objective but, where this is not possible, disruption will be kept to a minimum both in magnitude and duration. Realistically it will not be possible to avoid any impact when development is being undertaken immediately adjoining existing areas but measures should be taken to reduce that impact as far as possible.  It would not be appropriate to transport spoil over considerable distances as this would be unsustainable and simply transfer the problem to elsewhere. The general principle should be for construction spoil to be treated and utilised on-site.  Construction spoil can be used in the construction of sport and recreation facilities provided this is in appropriate locations and will not have adverse implications for landscape character.
<b>Environment</b> <u>Light green:</u> The re-use of construction spoil on site would reduce waste and the use of non-renewable resources. The significance of this measure is dependent on measures put in place to ensure the re-use of spoil and whether it is possible to do so. Should such measures be put in place, positive impacts would also include the reduction of noise and vibration pollution. Since definitive measures cannot be stipulated prior to preferred options, at this stage the significance of such positive impacts are uncertain. However it is asserted that these impacts will be positive relative to no such measures being put in place.
<b>Social</b> <u>Light green:</u> In the short term, impacts on human health will be mitigated. Noise and vibration pollution is known to contribute to stress and other adverse impacts particularly on mental health.
<b>Economic</b> N/a



**Summary:** The mitigation measures perform well against environmental and social objectives, in terms of efficient use of resources and reduced noise and vibration pollution. This will have an indirect impact on human health since Noise and vibration pollution is known to contribute to stress and other adverse impacts particularly on mental health.

<b>Area Action Plan Key Theme: Drainage</b>	
<b>Issue: Drainage</b>	
<p><b>Background information:</b> The eastern and northern parts of the site lie above the surrounding land, and the site then slopes down to the Washpit Brook, surface water at the site drains naturally in that direction. Apart from the immediate area along the Washpit Brook, there is little evidence of flood risk for the site itself.</p> <p>However, storm water run-off will increase as a result of the development which will create impermeable areas and therefore full attenuation measures will need to be considered for 100 year storms. The development must be designed so as not to create new or worsen existing off site flooding or drainage problems.</p>	
<b>Assumptions:</b> n/a	
<p><b>Option 20.1</b> Storm water drainage for the site should be designed as far as possible in line with sustainable drainage systems (SuDS) principles and water storage areas should be designed and integrated into the development with drainage, recreation, biodiversity and amenity value. Although the site lies some way from the Indicative Floodplains defined by the Environment Agency, in accordance with Government policy, a flood risk assessment will be needed. This will address any potential flood risk, and will identify the types of SuDS drainage facilities proposed and options for future adoption and maintenance arrangements. Surface water drainage would be controlled by means of a series of underground cells and pipes and surface water channels. These could form a variety of design features through the development, feeding to water holding features.</p>	
<b>Environment</b>	<p><u>Light green:</u>          These measures should perform well in terms of reducing vulnerability to flooding. The significance of positive impacts on limiting water consumption will be dependent on drainage system specifications and how these can be integrated with the measures in option 20.6 and other development options.</p>
<b>Social</b>	N/a
<b>Economic</b>	N/a

**Summary:**

These measures should perform better in terms of reducing vulnerability to flooding than if there were no measures. The significance of positive impacts on limiting water consumption will be dependent on drainage system specifications and how these can be integrated with option 20.6 and other development options. Water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

Area Action Plan Key Theme: Drainage			
Issue: Management and Maintenance of all Water Bodies and Watercourses			
Background information: It will be important to ensure that surface water drainage will be suitably managed and maintained in perpetuity.			
Assumptions: n/a			
<p><b>Option 20.2</b> All water bodies and watercourses would be maintained and managed by a specific trust which would be publicly accountable. This trust would be funded in perpetuity by taking ownership of commercial property developed as part of the urban extension</p>	<p><b>Option 20.3</b> All water bodies and watercourses would be maintained and managed by the two councils. However the Councils could not guarantee having the necessary resources and expertise to undertake this task</p>	<p><b>Option 20.4</b> All water bodies and watercourses would be maintained and managed by Anglian Water. However Anglian Water is a commercial organisation and could not guarantee being able to fulfil this function in perpetuity</p>	<p><b>Option 20.5</b> All water bodies and watercourses would be maintained and managed by Cambridge University. However, the University could not guarantee having the necessary resources and expertise to undertake this task</p>
<p><b>Environment</b>  <u>Light green:</u> A specific trust would have the time and resources to properly maintain the waterways. In addition, this management role would be its sole function, therefore a priority for action.</p>	<p><b>Environment</b>  <u>Uncertainty:</u> Whether councils would have resources and expertise to maintain waterways, therefore risk to habitat and species.</p>	<p><b>Environment</b>  <u>Uncertainty:</u> Whether this role could be fulfilled given that there is no specific interest in the waterway for Anglian Water. Risk to habitat and species if role not fulfilled.</p>	<p><b>Environment</b>  <u>Uncertainty:</u> Whether University would have resources and expertise to maintain waterways, therefore risk to habitat and species.</p>
<p><b>Social</b>  <u>Light green</u> Any risk of flooding managed. Quality of open space around waterway maintained. Local trust more accessible to local residents, therefore greater participation in decision-making possible.</p>	<p><b>Social</b>  <u>Uncertainty:</u> Whether Council would have resources and expertise to maintain waterways. Uncertain whether flood risk, open space around waterway managed.</p>	<p><b>Social</b>  <u>Uncertainty:</u> Whether Anglian Water could fulfil role. Uncertain whether flood risk, open space around waterway managed.</p>	<p><b>Social</b>  <u>Uncertainty:</u> Whether University would have resources and expertise to maintain waterways. Uncertain whether flood risk, open space around waterway managed.</p>
<p><b>Economic</b>            N/a</p>	<p><b>Economic</b>            N/a</p>	<p><b>Economic</b>            N/a</p>	<p><b>Economic</b>            N/a</p>

**Summary:** Overall, option 20.1 performs best. It is thought that a designated trust would have more time and resources to maintain the waterways. In addition, the focus of the trust on the specific task will be of benefit to overall management of waterways.

<p><b>Area Action Plan Key Theme:</b> Drainage</p>
<p><b>Issue:</b> Water conservation</p>
<p><b>Background information:</b> There are a number of ways to conserve water through:</p> <ul style="list-style-type: none"> <li>• The use of water saving devices;</li> <li>• Use of rainwater; and</li> <li>• Greywater recycling.</li> </ul> <p>The development of a major new urban quarter allows the opportunity to design water conservation measures into buildings to reduce the demand for water. This should be a fundamental approach of the development. The principle of reuse and recycling of water is also important as part of an integrated approach to water management that will facilitate the use of water from drainage as a design feature in the development. For example, use of rainwater (rainwater harvesting) could lower surface water run-off resulting in lower water levels in watercourses and the water table than would otherwise be the case. This could have an adverse impact on biodiversity.</p>
<p><b>Assumptions:</b> n/a</p>
<p><b>Option 20.6</b> The aim should be to reduce water consumption generally, but to seek a balance in the management of water recycling so that there is no adverse impact on the water environment and biodiversity. Opportunities for community water recycling measures should be investigated as well as measures that could be adopted in the home.</p>
<p><b>Environment</b>  <u>Light green:</u>          These potential measures perform well in terms of limiting water consumption to levels supportable by natural processes and storage systems. How well these measures perform is dependent on how these are implemented and the level to which they can mitigate any indirect adverse impacts of development options on water use. Since definitive measures cannot be stipulated prior to preferred options, at this stage the significance of such positive impacts are uncertain. However it is asserted that these impacts will be positive relative to no such measures being put in place.</p>
<p><b>Social</b>          N/a</p>
<p><b>Economic</b>          N/a</p>

**Summary:**

These potential measures perform well in terms of limiting water consumption to levels supportable by natural processes and storage systems. How well these measures perform is dependent on how these are implemented and the level to which they can mitigate any indirect adverse impacts of development options on water use. Since definitive measures cannot be stipulated prior to preferred options, at this stage the significance of such positive impacts are uncertain. However it is asserted that these impacts will be positive relative to no such measures being put in place. In addition, water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

Area Action Plan Key Theme: Planning and Implementation	
Issue: Phasing and Implementation	
<p><b>Background information:</b> The phasing and timing of the development will be dependent on the University demonstrating that its needs cannot be met elsewhere, so the timing of the various phases will be linked to that process. A key issues will be which parts of the site should be developed in sequence and there are two different ways in which the development could proceed.</p>	
<p><b>Assumptions:</b> n/a</p>	
<p><b>Option 22.1</b> The first phase of development would take place close to the existing built up area of Cambridge in the eastern part of the site, moving outwards and westwards as the needs of the University are proved</p>	<p><b>Option 22.2</b> The first phase of development would take place around a local centre, moving outwards and westwards as the needs of the University are proved</p>
<p><b>Environment</b>  <u>Light green:</u> May maintain more of the greenbelt area, areas of ecological and historical interest, open spaces if development is limited in any way (long term benefit but more uncertain).  <u>Uncertainty:</u> May be landscape benefits in the future if development limited, in the short term, will depend on planning and design.</p>	<p><b>Environment</b>  <u>Orange:</u> In long term may be more undeveloped land used in development.  <u>Uncertainty:</u> More diverse development and buildings (short term) uncertain in the future relative to option 22.1.</p>
<p><b>Social</b>  <u>Orange</u> No short term provision of local services, therefore less community engagement.  <u>Light green:</u> Greater provision of affordable housing in the short term. May maintain more open space if development limited in any way (long term benefit but more uncertain)</p>	<p><b>Social</b>  <u>Light green:</u> Would provide the houses and new tenants with close-by local services sooner (short term benefit) resulting in greater community engagement.  <u>Orange:</u> Less provision of affordable housing in short term. Possibly Less provision of open space in long term.</p>
<p><b>Economic</b>  <u>Orange:</u> No economic benefits of local centre provision in short term</p>	<p><b>Economic</b>  <u>Light green:</u> Economic benefits from local centre development in the short term, relative to option 22.1.</p>



**Summary:** Option 22.1 performs better on environmental objectives due to the potentially reduced area of land take if University needs are not demonstrated, i.e. there may be less development of a local centre than option 22.2 if the needs of the University are realised at an early stage of housing development. However, the development of a local centre early on in development will ensure local residents have access to services and facilities throughout construction phases of residential development. It should be noted that the benefits of option 22.2 relative to 22.1 are short term in nature. However, the benefits of option 22.1 would be long term if they are realised.

**Cumulative, synergistic and indirect impacts:** Option 22.1 may result in cumulative impacts on the environment due to a greater use of undeveloped land. These impacts would include loss of open space and biodiversity. The cumulative impacts of 22.1 would lie with the local economy and local provision of services and facilities, however, these would be short term in nature.

<b>Area Action Plan Key Theme: Planning and Implementation</b>	
<b>Issue: Strategic landscaping</b>	
<b>Background information:</b> Part of the strategy for minimizing impacts of the development will involve the landscaping of the site as part of the overall development. Landscaping will involve earth moving and the general management of spoil which will be created from digging footings, land drains, surface water attenuation lakes etc. Woodlands, individual trees and hedgerows will also be planted.	
<b>Assumptions:</b> n/a	
<b>Option 22.3</b> An agreed landscape strategy will be needed to ensure that the east part of the development area is landscaped, managed and protected where practical before much of the development is started, and that appropriate landscaping is completed promptly upon the completion of each phase of the development.	
<b>Environment</b>	<p><u>Light green:</u>          These measures will have a potentially positive impact on mitigating impacts and maintaining the diversity and distinctiveness of the landscape and townscape character, relative to no such measures being in place. In addition the measures will help to create places, spaces and building that work well with the landscape. Landscape impacts could potentially be significant should there be development on the ridge, together with development impacts on the character and distinctiveness of Cambridge and Girton and landscaping issues around the site. The significance of the positive impacts of these measures is at this stage uncertain. This will be dependent on preferred options and how far these measures can mitigate against any adverse impacts.</p>
<b>Social</b>	N/a
<b>Economic</b>	N/a
<b>Summary:</b>	<p>These measures will potentially have a positive effect on mitigating impacts and maintaining the diversity and distinctiveness of the landscape and townscape character, relative to no such measure being in place. In addition the measures will help to create places, spaces and building that work well with the landscape. Landscape impacts could potentially be significant should there be development on the ridge, together with development impacts on the character and distinctiveness of Cambridge and Girton and landscaping issues around the site. The significance of the positive impacts of these measures is at this stage uncertain. This will be dependent on preferred options and how far these measures can mitigate against any adverse impacts.</p>

<p><b>Area Action Plan Key Theme: Planning and Implementation</b></p>
<p><b>Issue: Phasing and Implementation</b></p>
<p><b>Background information:</b> The principle that development will fund in full the services, facilities and infrastructure that are required to enable the development to proceed and to meet the needs of its residents and other users is well established in planning law and government policy.</p> <p>The Plan will need to include a timetable for the provision of services, facilities and infrastructure, and will ensure that those needed at every stage of the development are available. The providers of services, facilities and infrastructure at the new urban quarter have not yet determined in full what is required and how they will make provision.</p>
<p><b>Assumptions:</b> n/a</p>
<p><b>Option 22.4</b> That the AAP require the development to provide physical and community infrastructure to meet the needs of its residents and other users to an agreed timetable</p>
<p><b>Environment</b> N/a</p>
<p><b>Social</b> <u>Light green:</u> This plan will ensure that the quality, range and accessibility of services are provided. The significance of such positive impacts will be dependent on the decision-making process and the outputs of such a process.</p>
<p><b>Economic</b> N/a</p>
<p><b>Summary:</b> This plan will ensure that quality; range and accessibility of services are provided. The significance of such positive impacts will be dependent on the decision-making process and the outputs of such a process.</p>

## SUMMARY AND CONCLUSIONS OF APPRAISAL

*Table 2: Summary of issues and options and their appraisal*

### Issue: A Vision for the Area

**Option 7.1** Vision. North West Cambridge will create a new University quarter for Cambridge which will also contribute to meeting the needs of the wider city community. Development will be of the highest quality in keeping with the reputation of the University as a centre of excellence and a world leader within the fields of higher education and research, and will address a wide range of the University's long-term development needs. There will be a new neighbourhood centre which will act as a focus for the development but which will also provide facilities and services for nearby communities. A new landscaped urban edge will be created which will enhance the setting of the City and maintain the separate identity of Girton village.

#### Summary:

The option is presented in the form of a vision statement. The vision outlines what the councils hope to achieve by the implementation of the Area Action Plan. To achieve the vision the plan must successfully guide the implementation of a range of planning guidance in a sustainable manner. As the detail of the plan will not be known until later in the plan making process, beyond the issues and options stage, the assessment of this option returns unknown outcomes. However, the vision appears consistent with the SA economic objectives but less information on environmental and social aspects are provided.

Cumulative, synergistic and indirect impacts:  
These effects cannot be determined.

**Issue: Objectives**

**Option 8.1 Objectives**

**Summary:**

The worst performing objectives are 5 and 6 (To create a new community which respects and links with adjoining communities and to create a satisfactory mix of uses). As expected the AAP objectives, which concentrate on, the need for a new development perform badly against the environmentally focused SA objectives. Tensions between some economic development objectives and environmental objectives are inevitable and reconciliation of the two pillars of sustainable development will be required.

Other AAP objectives perform well or do not impact upon the SA objectives. Furthermore AAP objectives perform well against the economically focussed SA objectives. Finally, the performance of AAP objectives which address transport infrastructure is largely uncertain and will require more information from the options in order to progress the SA further.

Overall the appraisal of the AAP objectives highlights that - some trade off of environmental objectives will be required in order to deliver the AAP. In particular on resource use, habitat, landscape and townscape character, open space and greenhouse gases. Mitigation measures will be required to reduce these potentially negative impacts.

**Issue: Green Belt, the setting of Cambridge and the Separation of Communities**

Option 10.1	Option 10.2	Option 10.3	Option 10.4	Option 10.5
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**Summary:** The relative sustainability of the options is dependent on the balance between the degree of land take and provision of employment opportunities. Although options 10.1 and 10.2 meet the development aspirations of the University, the impact on the character, setting and landscape of the Cambridge and Girton is substantial. Option 10.5 performs well against landscape, ecological and historical interest impacts. Providing the affordable housing requirement is fulfilled in option 5 the main area of underperformance is the lack of employment opportunities due to reduced provision of research facilities. Design specifications for option 10.1 could reduce light pollution impact and for options 10.1 to 10.4 could reduce the prominence of buildings on the top of the ridge. Mitigation measures could reduce the resource impact of options 10.1 and 10.2, e.g. use of recycled aggregates, water efficiency measures and energy efficiency.

**Cumulative, synergistic and indirect impacts:** The cumulative environmental impact of options 10.1 and 10.2 will be significant on the immediate local environment in terms of biodiversity, loss of open space and character, setting and landscape. The significant cumulative impact for Option 10.1 lies with the character, setting and landscape, due to: the proximity of the option to the M11; the loss of the sweep of land which is important to the setting of Cambridge and the adverse impact on the character and setting of Girton. The significant cumulative impact for option 10.2 lies with biodiversity and natural heritage impacts due to the amount of land take and the loss of greenbelt fields in the south of the site. Mitigation measures such as building design will decrease the impact of option 10.2 on the landscape, particularly buildings on the higher areas of the site such as the ridge. Option 10.5 will have a cumulative economic impact through the potential loss of employment opportunities both within the proposed research facilities and the services that the larger land take options could accommodate more widely.

**Habitats Directive:** The site is within 10km of a designated SAC. The qualifying criteria are the barbestelle bats, which are known to have a flight line of 20km and require foraging areas which contain hedgerows. The site is a small area within the 20km circumference from the boundaries of the SAC and on its own the site is very unlikely to have an adverse impact on the qualifying criteria. However, development in the region may have a cumulative impact on the foraging area for the bats and the councils may want to consult the county council to assess impacts county wide and whether the cumulative impact of the development would have an adverse impact on the qualifying criteria of the SAC.

**Issue: Affordable Housing**

**Option 11.1** The target for Affordable Housing will be to secure 50% affordable housing as currently set out in the Cambridge Local Plan.

**Summary:**

The option is generally considered sustainable, having negligible environmental and economic effects. Affordable housing should also be of a high quality standard, the proposed mitigation should be significant to ensure that quality is not sacrificed for affordability and as a result producing environmental problems. The text around the option indicates need for key worker housing for people working for the university. The option therefore will not result in socially rented accommodation being provided, which excludes some members of the population from the development.

**Issue: Housing Density**

**Option 11.2** Higher densities will be located away from existing housing and close to the main public transport routes and services and facilities. Lower densities and other College, University or research related buildings with extensive green settings will be located adjacent to existing housing.

**Summary:**

The construction of higher density buildings away from existing buildings will be beneficial for integration with existing buildings and result in a less visually cluttered and displeasing landscape than there may otherwise have been. However placing these buildings in proximity to areas with biodiversity interest may also have negative effects. To avoid these effects the requirement of development to undergo ecological assessment and daylight assessment should be considered for inclusion within the DPD.

**Issue: Relationship between University Housing, Affordable Housing and market housing**

**Option 11.3** The various components of housing development, Student accommodation, University key worker and market housing will be mixed and integrated across the site.

**Option 11.4** Student accommodation, and University key worker housing will be developed as a separate and distinct University quarters, whilst the University key worker and market housing will be mixed and integrated across the site.

**Option 11.5** Student accommodation and University key worker housing will be developed as a separate and distinct University quarter within the site

**Summary:** Option 11.2 performs best and strikes a balance between enabling the student population to live in a distinct area, whilst not completely separating the University population from the market housing. Whether the student population is undergraduate or postgraduate and the design and planning of the housing will determine the extent of the sustainability issues outlined above.

<b>Issue: Employment</b>	
<b>Option 12.1:</b> Employment development at North West Cambridge will be limited to the teaching and research institution requirements of Cambridge University and will not include any additional element of commercial research beyond the level which is currently proposed in the Cambridge Local Plan	<b>Option 12.2:</b> Employment development at North West Cambridge will include a mix of commercial research as well as the teaching and research requirements of Cambridge University to meet the aspirations of Cambridge University.
<b>Summary:</b> Option 12.2 performs better in economic terms relative to option 12.1. It should be considered, however, that in balancing the use of Greenfield land with development, that the most efficient use of the land is chosen and a decision must be made whether this includes further development of the flagship sector. Option 12.1 will not increase demand for additional housing to the extent of option 12.2. Note that housing is a key issue in the area and the priority of the development.	

<b>Issue: A new orbital connecting route</b>			
<b>Option 13.1:</b> A new all-purpose route will be developed linking Madingley Road and Huntingdon Road. The route will lie within a green corridor within the University's development.	<b>Option 13.2:</b> A new all purpose route will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the development with regard to slower speeds and safe crossings for pedestrians.	<b>Option 13.3:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road.	<b>Option 13.4:</b> A new orbital route limited to cyclists and public transport will be developed linking Madingley Road and Huntingdon Road. This road will be designed within and as part of the developments with regard to slower speeds and safe crossings for pedestrians.
<b>Summary:</b> Option 13.4 performs best across all objectives. Options 13.2 and 13.3 balance the use of undeveloped green corridor space and the promotion of public transport. 13.1 is the least sustainable option.			
<b>Cumulative, synergistic and indirect impacts:</b> Options 13.1 and 13.3 will have cumulative environmental and social impacts, these will be due to loss of open space, noise and air pollution. The most significant cumulative impact will be on local residents living in proximity to the orbital route.			



**Issue: North facing access roads for the M11 at Madingley Road (A1303)**

**Option 13.5:** North facing access roads will be provided in order to mitigate significant adverse traffic impacts from development (subject to their benefit or otherwise to be determined through transport studies)

**Option 13.6:** North facing access roads will not be provided as part of the development

**Summary:** The environmental impact of option 13.5 is significant. Option 13.5 may increase accessibility to the area, but it also encourages car use and thereby undermines the promotion of public transport. Note that option 13.6 may result in increased congestion in local area.

**Cumulative, synergistic and indirect impacts:** The cumulative environmental and social impacts of option 13.5 will have an adverse impact on local residents due to loss of open space, noise and air pollution.

**Issue: Cycle Links**

**Option 13.7:** New and improved cycle links will be provided as part of the development

**Summary:**

The inclusion of cycle links within the development area is considered to have sustainability advantages and this option is viewed as having economic and social benefits as well as environmental. Mitigation has been proposed in the form of undertakings within the plan to provide secure bicycle parking and to provide measures to design out crime from cycle routes.

**Cumulative, synergistic and indirect impacts:**

Indirect positive benefits on biodiversity have been noted. Reducing the potential emissions that the site may produce will have a reduced effect on biodiversity through better air quality, and will help protect the integrity of designated sites within the region.

Issue: Location and scale of the local centre and relationship with adjacent areas	
<p><b>Option 14.1:</b> A local centre will be established, close to the heart of the new development to serve primarily the needs of the development between Huntingdon Road and Histon Road.</p>	<p><b>Option 14.2:</b> A local centre will be established close to the heart of the new development to serve primarily the needs of the development between Madingley Road and Huntindgon Road, with some common community services and facilities to be located close to Huntingdon Road on either the north or south of the road.</p>
<p><b>Summary:</b> Option 14.2 generally performs better across all relevant objectives, there are particular benefits across social and economic objectives. With regards environmental objectives, there is potential benefit of option 14.1 associated with the loss of undeveloped land. This benefit of option 14.1 (objective 1.1) will depend on whether the land that would have been allocated to a local centre is left undeveloped or whether it would be used for other development.</p>	

Issue: The need for a secondary school at North West Cambridge	
<p><b>Option 14.3:</b> land between Madingley Road and Huntingdon Road is an appropriate location for a secondary school.</p>	<p><b>Option 14.4:</b> Land between Madingley Road and Huntingdon Road is not an appropriate location for a secondary school.</p>
<p><b>Summary:</b>          In summary when considering the location of a new secondary school in terms of its sustainability there are only minor differences between locating it on the site or off site but in the locality. Some benefits will be noted for those who will live in the new accommodation created, but these are counter balanced in some cases by the requirements for pupils who will live off site. However, it can be concluded that the provision of a school is beneficial for sustainability and inclusion of measures to ensure this within the DPD will help to promote sustainability.</p> <p><b>Cumulative, synergistic and indirect impacts:</b>          An indirect effect of not including a school in the DPD would be to create more space for housing which in turn would help provide more housing for key workers.</p>	

<b>Issue: The need for a secondary school at North West Cambridge</b>	
<b>Option 14.5:</b> That if a secondary school is to be provided that none of its playing fields are located in the strategic gap separating Cambridge from Girton	<b>Option 14.6:</b> That if a secondary school is to be provided that its playing fields can be located in the strategic gap separating Cambridge from Girton
<b>Summary:</b> Option 14.5 performs well against environmental and social sustainability objectives due to the ecological benefits of retaining some open space within the development and also the landscaping benefits. This would also make more open area available to local residents, should the playing fields be open to the public. Option 14.6 may allow more area for development. If this extra land made available is used for the local centre or research facilities then this option would perform better on economic objectives. At present, it is uncertain how much these factors would be impacted and the decision on options 10.1 to 10.5 would go some way to determining this.	

<b>Issue: Location of the new public open space</b>	
<b>Option 15.1:</b> Open space and recreation facilities should be provided on the site.	<b>Option 15.2:</b> Some of the open space and recreation facilities, could be provided by commuted payments.
<b>Summary:</b> Overall, environmental and social benefits to the local environment and community are greater with option 15.1. It should be borne in mind that the strategic location of the open space could enhance the greenbelt area and mitigate against impacts of the development on the townscape, thus retaining some distinctive gap between Cambridge and Girton.	

<b>Issue: Archaeology</b>	
<b>Option 16.1</b> Given the potential of archaeological remains, in accordance with Government policy, suitably qualified persons should be engaged to undertake a fully analytical, archaeological investigation, prior to any development of the site. This will be necessary to facilitate a detailed understanding of the evolution and significance of the site, based on the assumption that any surviving remains should be preserved in situ, or at least subject to detailed recording following excavation. The results of the study should be published and made available for public examination.	
<b>Summary:</b> This measure is overall deemed to have positive environmental benefits relative to the absence of such measures. The extent or significance of such positive impact would be dependent on how the findings of such an investigation are used and how such information would inform any development plans and preferred option mitigation measures.	

**Issue: Biodiversity**

**Option 17.1** The AAP provides the opportunity to ensure that existing habitats are protected or enhanced by improved planting and management and to create new habitats so that, despite development there is an overall increase in biodiversity. The AAP can establish a strategy based on:

- Existing areas of woodland, hedgerows and mature trees being retained;
- Improvements in the management of the areas where there is to be no built development could offset the loss of habitats elsewhere within the site;
- Providing habitats within the development through the careful design and management of open spaces and the use of building materials and incorporating wildlife features within the built environment;
- Ensuring that all wildlife areas connect to each other to provide a network; and
- Water features, including ponds and the Washpit Brook being managed as a wetland habitat to maximise their biodiversity value. Complementary marginal habitats could also be provided where space allows.

**Summary:**

This strategy would overall have positive benefits on biodiversity, conservation of habitats and people's access to wildlife, relative to no such strategy being in place. However, the significance and extent of such positive impacts is unknown since preferred options are unknown and the extent to which such a strategy could mitigate against any adverse impacts of these is uncertain at this stage.

Issue: Source of energy			
<p><b>Option 18.1:</b> The AAP should require housing and other developments to provide at least 10% of the development's total predicted energy requirements on site, from renewable energy sources.</p>	<p><b>Option 18.2</b> The AAP should require housing and other developments to provide at least 20% of the development's total predicted energy requirements on-site, from renewable energy sources.</p>	<p><b>Option 18.3</b> That in addition to renewable energy requirements set out in Option 18.1 and 18.2 that the AAP strongly support and if possible, required the provision of combined heat and power to meet the energy needs of a considerable proportion of the development at North West Cambridge.</p>	<p><b>Option 18.4</b> That if a combined heat and power scheme if not suitable that the AAP strongly support, and, if possible, require the provision of a district heating scheme to meet the heating needs of a considerable proportion of the development at North West Cambridge.</p>
<p><b>Summary:</b> Option 18.3 performs best on relevant sustainability objectives due to reduced greenhouse gas emissions, increased resource recovery, greater energy sourcing from renewables and enhanced competitiveness. The relative sustainability of option and 18.4 in terms of increased resource recovery and greater energy sourcing from renewables will be dependent on the type of energy harnessed for the district heating system and the extent to which each it would provide energy to the development.</p>			

Issue: Construction Process
<p>Option 19.1 The construction process will need careful management in order that disruption to the adjacent parts of the City and Girton is avoided. Avoidance of impact will be the objective but, where this is not possible, disruption will be kept to a minimum both in magnitude and duration. Realistically it will not be possible to avoid any impact when development is being undertaken immediately adjoining existing areas but measures should be taken to reduce that impact as far as possible.</p> <p>It would not be appropriate to transport spoil over considerable distances as this would be unsustainable and simply transfer the problem to elsewhere. The general principle should be for construction spoil to be treated and utilised on-site.</p> <p>Construction spoil can be used in the construction of sport and recreation facilities provided this is in appropriate locations and will not have adverse implications for landscape character.</p> <p><b>Summary:</b> The mitigation measures perform well against environmental and social objectives, in terms of efficient use of resources and reduced noise and vibration pollution. This will have an indirect impact on human health since Noise and vibration pollution is known to contribute to stress and other adverse impacts particularly on mental health.</p>

**Issue: Drainage**

**Option 20.1** Storm water drainage for the site should be designed as far as possible in line with sustainable drainage systems (SuDS) principles and water storage areas should be designed and integrated into the development with drainage, recreation, biodiversity and amenity value. Although the site lies some way from the Indicative Floodplains defined by the Environment Agency, in accordance with Government policy, a flood risk assessment will be needed. This will address any potential flood risk, and will identify the types of SuDS drainage facilities proposed and options for future adoption and maintenance arrangements. Surface water drainage would be controlled by means of a series of underground cells and pipes and surface water channels. These could form a variety of design features through the development, feeding to water holding features.

**Summary:**

These measures should perform better in terms of reducing vulnerability to flooding than if there were no measures. The significance of positive impacts on limiting water consumption will be dependent on drainage system specifications and how these can be integrated with option 20.6 and other development options. Water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

**Issue: Management and Maintenance of all Water Bodies and Watercourses**

**Option 20.2** All water bodies and watercourses would be maintained and managed by a specific trust which would be publicly accountable. This trust would be funded in perpetuity by taking ownership of commercial property developed as part of the urban extension

**Option 20.3** All water bodies and watercourses would be maintained and managed by the two councils. However the Councils could not guarantee having the necessary resources and expertise to undertake this task

**Option 20.4** All water bodies and watercourses would be maintained and managed by Anglian Water. However Anglian Water is a commercial organisation and could not guarantee being able to fulfil this function in perpetuity

**Option 20.5** All water bodies and watercourses would be maintained and managed by Cambridge University. However, the University could not guarantee having the necessary resources and expertise to undertake this task

**Summary:** Overall, option 20.1 performs best. It is thought that a designated trust would have more time and resources to maintain the waterways. In addition, the focus of the trust on the specific task will be of benefit to overall management of waterways.

**Issue:** Water conservation

**Option 20.6** The aim should be to reduce water consumption generally, but to seek a balance in the management of water recycling so that there is no adverse impact on the water environment and biodiversity. Opportunities for community water recycling measures should be investigated as well as measures that could be adopted in the home.

**Summary:**

These potential measure perform well in terms of limiting water consumption to levels supportable by natural processes and storage systems. How well these measures perform is dependent on how these are implemented and the level to which they can mitigate any indirect adverse impacts of development options on water use. Since definitive measures cannot be stipulated prior to preferred options, at this stage the significance of such positive impacts are uncertain. However it is asserted that these impacts will be positive relative to no such measures being put in place. In addition, water is a key sustainable issue within the region and these measures could provide mitigation measures against indirect impacts of development options.

**Issue: Phasing and Implementation**

**Option 22.1** The first phase of development would take place close to the existing built up area of Cambridge in the eastern part of the site, moving outwards and westwards as the needs of the University are proved

**Option 22.2** The first phase of development would take place around a local centre, moving outwards and westwards as the needs of the University are proved

**Summary:** Option 22.1 performs better on environmental objectives due to the potentially reduced area of land take if University needs are not demonstrated, i.e. there may be less development of a local centre than option 22.2 if the needs of the University are realised at an early stage of housing development. However, the development of a local centre early on in development will ensure local residents have access to services and facilities throughout construction phases of residential development. It should be noted that the benefits of option 22.2 relative to 22.1 are short term in nature. However, the benefits of option 22.1 would be long term if they are realised.

**Cumulative, synergistic and indirect impacts:** Option 22.1 may result in cumulative impacts on the environment due to a greater use of undeveloped land. These impacts would include loss of open space and biodiversity. The cumulative impacts of 22.1 would lie with the local economy and local provision of services and facilities, however, these would be short term in nature.

**Issue: Strategic landscaping**

**Option 22.3** An agreed landscape strategy will be needed to ensure that the east part of the development area is landscaped, managed and protected where practical before much of the development is started, and that appropriate landscaping is completed promptly upon the completion of each phase of the development.

**Summary:**

These measures will potentially have a positive effect on mitigating impacts and maintaining the diversity and distinctiveness of the landscape and townscape character, relative to no such measure being in place. In addition the measures will help to create places, spaces and buildings that work well with the landscape. Landscape impacts could potentially be significant should there be development on the ridge, together with development impacts on the character and distinctiveness of Cambridge and Girton and landscaping issues around the site. The significance of the positive impacts of these measures is at this stage uncertain. This will be dependent on preferred options and how far these measures can mitigate against any adverse impacts.

**Issue: Phasing and Implementation**

**Option 22.4** That the AAP require the development to provide physical and community infrastructure to meet the needs of its residents and other users to an agreed timetable

**Summary:**

This plan will ensure that quality; range and accessibility of services are provided. The significance of such positive impacts will be dependent on the decision-making process and the outputs of such a process.



## CONCLUSIONS

The environmental objectives bare the burden of the potential negative impacts arising from the different options. This is also where there is the greatest potential for cumulative impacts to occur.

There tends to be a slightly higher degree of uncertainty within the environmental than the economic objectives. However, most of the uncertainty is focussed around several options, in particular 7.1, 12.1, 12.2, 14.1, 14.2 and 14.5.

The economic objectives tend to have less negative and more positive impacts across the options than the social and environmental objectives

Identifying which is the most sustainable option within most of the issues identified is not straightforward. Most require a degree of trade off especially between environmental and economic objectives of the SA.

The SA does clearly identify one of the options as being more sustainable within the issue regarding access to the M11. The SA suggests that building access roads to the M11 will most likely detract from the sustainable development of North West Cambridge.

The SA suggests that the decision on which options to proceed with, will require a degree of trade off between the environmental and economic issues affecting North West Cambridge.

Perhaps the most important decision is the one regarding the size of the footprint. Five options have been produced and two options appear to try and compromise between maximising the land available for development whilst trying to minimise the negative environmental consequences. Another key decision will be the selection of the transport options, particularly the degree to which the new development will rely on the car. There is potential for a good sustainability win if the options that promote public transport over car use are taken forward.

Ultimately the potential economic benefits of at least providing most of what the University says it requires extend beyond North West Cambridge and potentially affect the whole region and even perhaps nationally. The negative environmental impacts are more locally based. A significant environmental impact will be on the landscape and characteristics of the local area including the setting of Girton and Cambridge city. There is potential to mitigate some of the more important negative impacts such as the increased resource use and transport intensity as well as preserving the characteristic Cambridge townscape.

The most serious potential negative impact is probably the use of scarce water resources. East Anglia is officially a water short area. The AAP talks about fitting water saving technologies in new developments. This is essential if negative impacts are to be reduced. However, the AAP may seek to go beyond this and perhaps undertake to retrofit existing homes in the area with water saving technologies. This could significantly enhance the real and perceived sustainability of the AAP.

Other mitigation measures include the specification of low impact building design to decrease the impact of option 10.2 on the landscape, particularly buildings on the higher areas of the site such as the ridge. Ensuring that the school playing fields are open to the public would provide more social benefits for option 14.5 due to increase in available open

space within the development. Specific mitigation measures will be required at the next stage of assessment on the preferred options, when the full cumulative impacts of the development are known.

Some of the single options regarding, archaeology, biodiversity, construction processes, drainage, water conservation and landscaping, will provide additional mitigation measures, which will help ameliorate potential negative impacts and maximise potential positive impacts.

To comment on this report please contact:

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## APPENDIX 1

*Table 8a: Plans and programmes relevant to the South Cambridgeshire LDF (Source: South Cambridgeshire District Council, 2006).*

International Level	
1	The Kyoto Protocol on Climate Change (1992)
2	The Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
3	EC Council Directive 79/409/EEC, on the Conservation of Wild Birds (1979)
4	EC Council Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora (1992)
5	The Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
6	EC Council Directive 85/337/EEC & 97/11/EC, on the Assessment of the Effects of certain Public and Private Projects on the Environment (1985)
7	EC Council Directive 1999/31/EC, on the landfill of waste (1999)
8	The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971)
9	Water Framework Directive (EC 2002)
National Level	
10	A better quality of life, a strategy for sustainable development for the UK (DETR 1999)
11	Working with the Grain of Nature – A Biodiversity Strategy For England (DEFRA 2002)
12	PPS1 Delivering Sustainable Development (ODPM 2004)
13	PPG3 Housing (ODPM 2000)
14	PPS6 Town Centres and Retail Development (ODPM 2005)
15	PPS7 Sustainable Development in Rural Areas (ODPM 2004)
16	PPG9 Nature Conservation (DoE 1994)
17	PPG13 Transport (DETR 2001)
18	PPG15 Planning and the Historic Environment (DoE 1994)
19	PPG16 Archaeology and Planning (DoE 1993)
20	PPG17 Planning for Open Space, Sport and Recreation (ODPM 2002)
21	PPS22 Renewable Energy (ODPM 2004)
22	PPS23 Planning and Pollution Control (ODPM 2004)
23	PPG25 Development and Flood Risk (ODPM 2001)
24	Transport Ten Year Plan (Department of Transport 2000)
25	Energy White Paper: Our energy future – creating a low carbon economy (DTI 2003)
26	Rural White Paper: Our Countryside: The Future - A Fair Deal for Rural England (DETR 2000)
27	Planning (Listed Buildings and Conservation Areas) Act 1990
28	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum (DEFRA 2003)
29	UK Waste Strategy (DEFRA 2000)
30	Choosing Health: making healthier choices easier' White Paper (DoH November 2004).
31	'Securing Good Health for the Whole Population: Final report. HM Treasury (2004)
32	'Delivering Choosing health: making healthier choices easier' Guidance (DoH) March 2005.
33	Home Office target Delivery Report 2003
34	Strategy for Sustainable Farming and Food (Defra 2002)
Regional Level	
35	Sustainable Communities in the East of England (ODPM 2003)
36	A Sustainable Development Framework for the East of England (EERA 2001)
37	Our Environment, Our Future (Regional Environment Strategy, EERA 2003)

39	Culture: A Catalyst for Change. A strategy for cultural development for the East of England (Living East 1999+)
40	Regional Economic Strategy (EEDA, 2001)
41	EEDA Corporate Plan 2003 - 2006
42	Regional Planning Guidance for East Anglia (GOEAST 2000)
43	Draft RSS14 East of England Plan (EERA 2004)
44	East of England Regional Waste Management Strategy (East of England Region Waste Technical Advisory Body 2002)
45	Sustainable Tourism Strategy for the East of England – Draft (East of England Tourist Board 2003)
46	Framework for Regional Employment and Skills Action (FRESA) (EEDA, 2003)
47	Regional Social Strategy (EERA 2003)
48	Woodland for Life: The Regional Woodland Strategy for the East of England (EERA & the Forestry Commission, 2003)
49	Regional Housing Strategy 2003-2006 (Regional Housing Forum, 2003)
50	Water Resources for the future: A Strategy for Anglian Region (Environment Agency, 2001)
51	Towns and Cities Strategy and Action Plan (EEDA, 2003)
52	Towards Sustainable Construction, A Strategy for the East of England (EP, CE, GO-E, PECT 2003)
53	Living with Climate Change in the East Of England (East of England Sustainable Development Roundtable 2003)
54	East of England Plan For Sport (Sport England East, 2004)
<b>County Level</b>	
55	Cambridge and Peterborough Structure Plan 2003 (CCC & PCC 2003)
56	Cambridgeshire County Council's Environment Strategy and Action Plan (CCC 2002)
57	Public Library Position Statement 2003 (CCC 2003)
58	Cambridgeshire and Peterborough Joint Waste Management Strategy 2002-2022 (CCC & PCC 2002)
59	Cambridgeshire and Peterborough Waste Local Plan 2003
60	Cambridgeshire Local Transport Plan 2004 – 2011 (CCC 2003)
61	A County of Culture – A Cultural Strategy for Cambridgeshire 2002 – 2005
62	Cambridgeshire Landscape Guidelines (CCC 1991)
63	Cambridgeshire Rural Strategy (CCC 1992)
64	Cambridgeshire Health Improvement & Modernisation Plan 2002 – 2005 (HIMP Partners 2001)
65	Prospects for Learning (CCC 2001)
66	Cambridgeshire Aggregates (Minerals) Local Plan, (CCC 1991)
67	Biodiversity Checklist for land use planners in Cambridgeshire and Peterborough (CCC 2001)
68	Cambridgeshire Biodiversity Action Plan (CCC 2004)
69	The Infrastructure Partnership – sustainable development for the Cambridge sub-region (CCC)
70	Cambridge Sub-Regional Partners “Delivering Renewable Energy in the Cambridge Sub-Region”, June 2004
<b>South Cambridgeshire District</b>	
71	South Cambridgeshire Corporate Strategy 2003/04 – 2007/08
72	South Cambridgeshire Community Strategy 2004
73	South Cambridgeshire Economic Development Strategy 2003
74	Today and Tomorrow – South Cambridgeshire District Council LA21 Community Action Plan 2001
75	LA21 Consultation Results June 2000
76	South Cambridgeshire District Council – Housing Strategy 2002-2005
77	South Cambridgeshire District Council – Community Safety Strategy – 2002 - 2005

78	South Cambridgeshire District Council – Lighting the Way – Arts Strategy 2002 - 2005
79	South Cambridgeshire District Council – Local Strategic Partnership – 20 Year Vision
80	South Cambridgeshire District Council – Sports Development Strategy 2002 - 2004
81	South Cambs Primary Care Trust - Health Improvement and Modernisation Plan 2002 – 2005
82	South Cambs Primary Care Trust - South Cambridgeshire Improving Health Plan 2003 – 2006
83	South Cambs Primary Care Trust - Health Matters in South Cambridgeshire 2004
84	South Cambridgeshire District Council - Housing Needs Survey 2002 – June 2003

*Table 8b: Plans and programmes relevant to the Cambridge City LDF (Source: Cambridge City Council, 2005).*

No	Plan / Programme
<b>International</b>	
1	Commitments arising from the World Summit on Sustainable Development, Johannesburg (2002)
2	The UN Millennium Declaration and Millennium Development Goals (2000)
3	Kyoto Protocol (1997)
4	Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
5	EC Council Directive 79/409/EEC, on the Conservation of Wild Birds (1979)
6	EC Council Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora (1992)
7	Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
8	EC Council Directive 85/337/EEC & 97/11/EC, on the Assessment of the Effects of certain Public and Private Projects on the Environment (1985)
9	EC Council Directive 99/31/EC, on the Landfill of Waste (1999)
10	Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971)
11	Water Framework Directive 2000/60/EC (2002)
12	Air Quality Framework Directive 96/62/EC (1996)
13	Directive on Electricity Production from Renewable Energy Sources 2001/77/EC (2001)
<b>National</b>	
14	A Better Quality of Life, a strategy for sustainable development for the UK (DETR 1999)
15	Taking it on – developing UK sustainable development strategy. A consultation paper (DEFRA 2004)
16	Working with the Grain of Nature – A Biodiversity Strategy For England (DEFRA 2002)
17	Planning Policy Guidance Note 1: General Policy & Principles (ODPM 1997)
18	Planning Policy Statement 1: Creating Sustainable Communities (ODPM 2005)
19	Planning Policy Guidance Note 2: Green Belts (DoE 1995)
20	Planning Policy Guidance Note 3: Housing (ODPM 2000)
21	Planning for Mixed Communities – Consultation Paper (proposed changed to PPG3) (ODPM 2005)
22	<b>Planning Policy Guidance Note 4: Industrial and Commercial development and small firms (DoE 1992)</b>

23	Draft Planning Policy Statement 6: Planning for Town Centres (ODPM 2003)
24	Planning Policy Guidance Note 8: Telecommunications (DETR 2001)
25	Draft Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2004)
26	Planning Policy Guidance Note 10: Planning and Waste Management (ODPM 1999)
27	Draft Planning Policy Statement 10: Planning for Sustainable Waste Management (ODPM 2004)
28	Planning Policy Guidance Note 13: Transport (DETR 2001)
29	Planning Policy Guidance Note 15: Planning and the Historic Environment (DoE 1994)
30	Planning Policy Guidance Note 16: Archaeology and Planning (DoE 1993)
31	Planning Policy Guidance Note 17: Planning for Open Space, Sport and Recreation (ODPM 2002)
32	Planning Policy Guidance Note 21: Tourism (DoE 1992)
33	Planning Policy Statement 22: Renewable Energy (ODPM 2004)
34	Planning Policy Statement 23: Planning and Pollution Control (ODPM 2004)
35	Planning Policy Guidance Note 24: Planning and Noise (DoE 1994)
36	Planning Policy Guidance Note 25: Development and Flood Risk (ODPM 2001)
37	Transport Ten Year Plan (Department of Transport 2000)
38	The Future of Transport White Paper (DfT 2004)
39	Climate Change – UK Programme (DETR 2000)
40	Energy White Paper: Our energy future – creating a low carbon economy (DTI 2003)
41	Planning (Listed Buildings and Conservation Areas) Act 1990
42	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DETR 2000)
43	UK Waste Strategy (DEFRA 2000)
44	Saving Lives: Our Healthier Nation White Paper (DoH 1999)
45	Home Office Target Delivery Report (2003)
46	Sustainable Communities Plan: Building for the Future (ODPM 2003)
<b>Regional</b>	
47	Sustainable Communities in the East of England (ODPM 2003)
48	A Sustainable Development Framework for the East of England (EERA 2001)
49	Our Environment, Our Future: Regional Environment Strategy for the East of England (EERA 2003)
50	Culture: A Catalyst for Change. A strategy for cultural development for the East of England (Living East 1999+)
51	Regional Economic Strategy (EEDA 2004)
52	EEDA Corporate Plan 2003 - 2006
53	Regional Planning Guidance for East Anglia - RPG 6 (GO East 2000)
54	East of England Plan, Draft revision to the Regional Spatial Strategy (RSS) for the East of England (EERA 2004)
55	East of England Regional Waste Management Strategy (East of England Region Waste Technical Advisory Body 2002)
56	Sustainable Tourism Strategy for the East of England – Draft (East of England Tourist Board 2003)

57	Framework for Regional Employment and Skills Action (FRESA) (EEDA 2003)
58	Regional Social Strategy (EERA 2004)
59	Woodland for Life: The Regional Woodland Strategy for the East of England (EERA & the Forestry Commission 2003)
60	Regional Housing Strategy 2003-2006 (Regional Housing Forum 2003)
61	Affordable Housing Study: The Provision of Affordable Housing in the East of England 1996-2021 (2003)
62	Water Resources for the future: A Strategy for Anglian Region (Environment Agency 2001)
63	Towns and Cities Strategy and Action Plan (EEDA 2003)
64	Towards Sustainable Construction, A Strategy for the East of England (EP, CE, GO-E, PECT 2003)
65	Living with Climate Change in the East of England (East of England Sustainable Development Roundtable 2003)
<b>County / Cambridge Sub-Region</b>	
66	Cambridgeshire and Peterborough Structure Plan 2003 (Cambs CC & PCC 2003)
67	Cambridgeshire and Peterborough Waste Local Plan (Cambs CC & PCC 2003)
68	Cambridgeshire Aggregates (Minerals) Local Plan (Cambs CC 1991)
69	Cambridgeshire Local Transport Plan 2004 – 2011 (Cambs CC 2003)
70	Cambridgeshire County Council's Environment Strategy and Action Plan (Cambs CC 2002)
71	Public Library Position Statement 2003 (Cambs CC 2003)
72	Cambridgeshire and Peterborough Joint Waste Management Strategy 2002-2022 (Cambs CC & PCC 2002)
73	A County of Culture – A Cultural Strategy for Cambridgeshire 2002 – 2005 (Cambs CC)
74	Cambridgeshire Landscape Guidelines (Cambs CC 1991)
75	Cambridgeshire Rural Strategy (Cambs CC 1992)
76	Cambridgeshire Health Improvement and Modernisation Plan 2002 – 2005 (HIMP Partners 2001)
77	Prospects for Learning (Cambs CC 2001)
78	Biodiversity Checklist for land use planners in Cambridgeshire and Peterborough (Cambs CC 2001)
79	Cambridgeshire Biodiversity Action Plan (Cambs CC 2004)
80	The Infrastructure Partnership – Sustainable development for the Cambridge sub-region (Cambs CC)
81	Delivering Renewable Energy in the Cambridge Sub-Region (Cambridge Sub-Regional Partners 2004)
<b>Cambridge City</b>	
82	A Community Strategy for Cambridge (Cambridge Local Strategic Partnership 2004)
83	Medium Term Objectives 2004/2005 to 2008/2009 (CCC 2003)
84	Best Value Performance Plan (CCC 2004)
85	Arts Plan for Cambridge 2002-2007 (CCC)
86	A Strategy for Work with Children and Young People, 2004 – 2008 (CCC)
87	Cambridge City Centre Management Business Plan 2003-2006 (Cambridge City)

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	Centre Management)
88	Community Safety Strategy (Cambridge Community Safety Partnership)
89	Environment Strategy (CCC 2004)
90	Improving the Health of the People of Cambridge (Cambridge City PCT 2002)
91	Homelessness Strategy (CCC 2003)
92	Single Homeless & Rough Sleeping Strategy 2002-2004 (Cambridge City Single Homeless & Rough Sleeping Partnership)
93	Housing Strategy 2004-2007 (CCC 2004)
94	Parks for Cambridge People - A Strategy for Parks, Play and Open Spaces (CCC 2003)
95	Sports Services Strategy 2003-7 (CCC)
96	Cambridge Tourism Strategy 2001-2006 (CCC 2001)
<b>97</b>	<b>Cambridge Walking and Cycling Strategy and Action Plan (CCC 2002)</b>
98	Economic Development Strategy 2004-2007 (CCC 2004)



## APPENDIX 2

Table 9 Baseline Information

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
LAND AND WATER RESOURCES							
Minimise the irreversible loss of undeveloped land and productive agricultural holdings	% dwellings completed on previously-developed land	<b>SCDC:</b> 2004-2005 33.5%  <b>CCC:</b> 2003/4 91%	Cambridgeshire and Peterborough 2004-05 55.1%	<b>SCDC:</b> 2003 27% Average over period 1999-2005 27%  <b>CCC:</b> 2004/5 95% 2005/6 95% 2006/7 90%	Cambridgeshire and Peterborough Average over period 2003-2004 51.4%  Government Target 60% by 2004/5  Minimum Target for Structure Plan Area – 50%	Structure Plan target for SCDC is 37%. Targets reflect limited supply of previously developed land available in the District, and the amount of housing development required. Large areas of PDL will be developed as part of Area Action Plans, to enable SCDC to meet the target later in the plan period.  Performance is dictated by the categories of land that become available for development.	SCDC District monitoring; County Monitoring; EERA; CCC – Best Value Performance Plan BV106 / QoL 33b  Structure Plan AMR Indicator C & Indicator D

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Net density of new dwellings completed	<p><b>SCDC</b> 2004-2005: 28</p> <p><b>CCC</b>: 2003/4 59.7 (gross)</p>	<p>Cambridgeshire and Peterborough 2003-04</p> <p>31.6 (gross)</p>	<p><b>SCDC</b>: 2003 19.7 (gross)</p> <p>Dwellings per ha</p> <p>Average over period 1999-2003</p> <p>18 (gross)</p> <p><b>CCC</b>: 2002/3 77.6 (gross)</p>	<p>Cambridgeshire and Peterborough</p> <p>Average over period 1999-2003</p> <p>20 (gross)</p> <p>Cambridgeshire and Peterborough 2002/3</p> <p>18.45 (gross)</p>	<p>Densities in rural South Cambridgeshire have historically been lower than achieved in Cambridge and the Market Towns. Higher densities must be sought from new developments if Structure Plan targets are to be met.</p> <p>City data only includes large sites of 10+ dwellings gross</p>	<p>District monitoring; County Monitoring; EERA</p> <p>Structure Plan AMR Indicator P is intended to collect data on net density, but currently is based on Gross. Monitoring systems and being developed to collect net data in the future.</p>

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Reduce the use of non-renewable energy sources	KWh of gas and electricity consumed per household per year	<p><b>SCDC:</b> 2004: 21,242</p> <p><b>CCC:</b> 2004</p> <p>use per customer 21.0MWh</p>	<p>UK: 2004: 21,053</p> <p>Cambridgeshire 2004 Gas use per customer 20.5MWh</p>	2001/2 15,395 KWh	UK 2001-2002 17,004 KWh	<p>The District figure compares favourably to the national figure. Further monitoring of trends is required.</p> <p>Electricity data may be available in next few years.</p>	<p>Transco (plus household stock data)</p> <p>QoL/LIB058 provides the methodology, with information published on the Transco website.</p> <p>Future monitoring will require the figure to be calculated annually.</p> <p>DTI Energy Statistics – <a href="http://www.dti.gov.uk/energy/inform/energy_trends/gas2003nuts4region.xls">www.dti.gov.uk/energy/inform/energy_trends/gas2003nuts4region.xls</a></p>

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Generating potential of renewable energy sources	<p><b>SCDC:</b> 8.94 GWh/yr (2002)</p> <p>2004-2005: 8.95 GWh/yr</p> <p><b>CCC:</b> 0</p>	<p>Cambridgeshire &amp; Peterborough (2002)</p> <p>333.5 GWh/yr*</p> <p>Cambridgeshire &amp; Peterborough (2003)</p> <p>318 GWh/yr</p> <p>UK - 11450Gwe</p>	<p><b>SCDC:</b> 8.94 GWh/yr (1999)</p> <p><b>CCC:</b> 0</p>	<p>Cambridgeshire &amp; Peterborough 1999: 36.1 GWh/yr*</p> <p>2002: 36.1 GWh/yr*</p> <p>Cambridgeshire 1999 19.4 GW/yr*</p>	<p>While energy generation from renewable sources has not increased in the District since 1999, a number of new projects have been initiated in the County.</p> <p>A number of schemes in the district which have planning permission have been delayed by problems with funding. In 2004-2005, one wind turbine with a generating capacity of 0.01 GWh/yr was constructed at Bassingbourn. (SCDC)</p>	<p>Structure Plan APR indicator 21, monitored through planning process.</p>

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Limit water consumption to levels supportable by natural processes and storage systems	(CCC data only)	CCC: Cambridge Water Company (metered households) 2002-3 133 l/head/d	N/A	CCC: Cambridge Water Company (metered households) 2002-3 130 l/head/d	N/A	Cambridge Water Company supplies approximately 50% of Cambridgeshire's residents including those in Cambridge. Approximately 50% of these households are metered. The data presented is for company measured household consumption (l/head/d) as reported to OFWAT	Water consumption data is available by water company regions. A method of estimating water consumption at the County and District level is being investigated. This indicator is a priority because sustainable water supply is a key local issue. OFWAT

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
BIODIVERSITY							
Avoid damage to designated sites and protected species	% SSSIs in favourable or unfavourable recovering condition <b>(SCDC only)</b>	89% of South Cambridgeshire's SSSIs in favourable or unfavourable recovering condition	Cambridgeshire and Peterborough 2004 68% UK 2005 – 45% in favourable condition. 24% in unfavourable recovering condition.		N/a	The government has set a target that 95% of SSSIs should be in favourable condition by 2010. the District Council will work with the County Council and English Nature to ensure that proactive management of the SSSIs in the District takes place in order to progress towards this target. Particular regard will need to be had to progress on sites which are in an unfavourable condition with no change likely to occur or where decline is likely.	English Nature. The first complete survey of SSSI condition was published in early 2004. DEFRA target is 95% by 2010. Additional work is required to disaggregate the data to District level.

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Maintain and enhance the range and viability of characteristic habitats and species	Total area designated as SSSIs (ha) <b>(SCDC only)</b>	March 2005: 950.7 ha, 42 sites		2004 954.01 ha.		The District has a relatively low amount of SSSI compared to many rural Districts. The amount designated has remained static for a number of years.	District GIS; English Nature
	Progress in achieving priority BAP targets	N/a	N/a	N/a	N/a		Awaiting implementation of monitoring software for County data. Expect to begin late 2004. Limited usefulness as LDF policies may not have a direct impact.
Improve opportunities for people to access and appreciate wildlife and wild places	% of rights of way that are easy to use <b>(SCDC only)</b> <i>(NB also see open space indicators below)</i>	<b>SCDC 2004:</b> 70.3% of rights of way easy to use		N/a		The district.	New survey conducted by County Council of 5% per year. Data available December 2004.

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Area of Local Nature Reserve per 1000 population (ha) <b>(CCC only)</b>	2004 0.15	Cambridgeshire 2004 0.22		Cambridgeshire 2003 0.21		Cambridge City Council Monitoring Structure Plan AMR Indicator 12
LANDSCAPE, TOWNSCAPE AND ARCHAEOLOGY							
Avoid damage to areas and sites designated for their historic interest, and protect their settings	% listed buildings 'at risk' <b>(SCDC only)</b>	March 2005: 2% (51 buildings)		2003 2% (49 buildings)  2004: 2% (48 buildings)		There have only been minor fluctuations in number of listed buildings at risk in the last 5 years, and they have remained a low percentage of the total stock of listed buildings.	District monitoring (no regional comparator)
	Number of listed buildings <b>(CCC only)</b>	2004 1586	Cambridgeshire 2004 7236	2003 1585			Cambridge County Council monitoring Comparator – Heritage Counts 2004: The State of the East of England's Historic Environment (English Heritage 2004)



Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Maintain and enhance the diversity and distinctiveness of landscape and townscape character	% of total built-up areas falling within conservation areas <b>(SCDC only)</b> <i>(NB also see biodiversity indicators above)</i>	2005: 21.6% (3,745 ha of village frameworks of which 809 ha lies within village frameworks)		2004 21.2%		Figure varies as Conservation Areas are designated, or village frameworks amended through development plan review. % is likely to fall as major new developments are completed creating new built up areas.	District GIS (no regional comparator) Calculated as % of land within village frameworks that lies within a Conservation Area.
	% of total land area falling within conservation areas <b>(CCC only)</b>	2004 17%					Cambridge City Council Monitoring Awaiting comparator data from County Council
Create places, spaces and buildings that work well, wear well and look good	Satisfaction rating for quality of built environment <b>(SCDC only)</b>	2002/03 90.0% 2003: 57.27% of people who replied to a 2003 survey were very satisfied or fairly satisfied with the quality of their built environment.	Cambridgeshire 2002/03 87.0%	In a 2003 survey, 33% believed their neighbourhood was getting worse (QoL 19)	Cambridgeshire In a 2003 survey, 33% believed their neighbourhood was getting worse (QoL 19)	Results indicate a high satisfaction rate, that is also higher than the countywide rate.	Quality of life survey – CCC Research Group (no regional comparator) QoL18/LIB133 The percentage of residents surveyed satisfied with their neighbourhood as a place to live Data in trend column not directly comparable.

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% of new homes developed to Ecohomes good or excellent standard.						SCDC Community Strategy Milestone Monitoring framework needs to be developed
<b>CLIMATE CHANGE AND POLLUTION</b>							
Reduce emissions of greenhouse gasses and other pollutants (including air, water, soil, noise, vibration and light)	CO <sub>2</sub> emissions per domestic property per year <b>(SCDC only)</b>						District monitoring (no direct regional comparator)
	CO <sub>2</sub> emissions by sector (tonnes per year) and per capita emissions (tonnes). <b>(CCC only)</b>	N/a	N/a	N/a	N/a	At present the County Council is developing methodologies to estimate CO <sub>2</sub> emissions. This work is ongoing.	

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	a) Annual average concentration of Nitrogen Dioxide (ug/m3 in SCDC ppb in CCC)	2004 <b>SCDC:</b> Bar Hill: 49.7 ug/m3 Impington: 52.2 ug/m3 Histon (urban background): 19 ug/m3 Histon (roadside): 32 ug/m3	National Air Quality Objectives a) 40 ug/m3 (To be achieved by end 2005) b) 35 days (to be achieved by end 2004)	a) <b>SCDC:</b> Bar Hill: 38.2 ug/m3 (2001) Impington: 52.7 ug/m3 (2002) Histon (urban background): 31 ug/m3 (1999) Histon (roadside): 48 ug/m3 (1999) <b>CCC:</b> Parker Street: 21 ppb Gonville Place: 19.7 ppb Silver Street: 20.2 ppb	National Air Quality Objectives a) 40 ug/m3 (To be achieved by end 2005) b) 35 days (to be achieved by end 2004)	There were more polluted days in 2003/4 in Cambridge due to a hot summer dominated by high pressure weather systems.  SCDC: At several of the locations surveyed, the level of nitrogen dioxide pollution exceeded the targets set by the National Air Quality objectives, both in terms of the average atmospheric concentration and the number of days where the concentration exceeds 50 ug/m3	Air Quality Review and Assessment progress report 2004. Structure Plan monitoring based on district reporting. Cambridge City Council Environmental indicators 2004.
	b) Days when fine particle concentration found to be in bandings 'moderate' or higher (days)	2003 <b>CCC:</b> Parker Street: 26.6 ppb Gonville Place: 21.9 ppb Silver Street: 26.1 ppb b) <b>SCDC:</b> Bar Hill: 40 Impington: 72 <b>CCC:</b> Parker Street: 21 Gonville Place: 12 Silver Street: 9		b) <b>SCDC:</b> Bar Hill: 9 (2001) and 27 (2002) Impington: 22 (2002) <b>CCC:</b> Parker Street: 19 Gonville Place: 0 Silver Street: 7			

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Vehicle flows across urban boundaries	<b>2005</b> Cambridge 183,596 motor vehicles; 1.7 per head of population	N/a	2001  Cambridge 172,926  <b>2003</b> Cambridge 170,036	N/a	Rate of traffic going in and out of Cambridge is stable, but still higher than LTP target.  The number of motor vehicles leaving Cambridge per day was about 450 less than in 2002.  The daily rate of flow of traffic from South Cambs to Cambridge to Cambridge and vice versa has increased since 2003.	County monitoring (no regional comparator) Local Transport Plan Cambridge City Council Medium Term Objectives QoL29 (new)
	Local bus passengers entering and leaving Cambridge per day (CCC only)	2003/4 25,000	N/a	2002/3 26,800	N/a	Although performance has deteriorated, Cambridgeshire has still exceeded the target agreed with the government of 24,000.	Cambridge City Council Medium Term Objectives LPI

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Modal share of (a) cyclists and (b) pedestrians <b>(CCC only)</b>	2003/4 (a) 19 (b) 20	N/a	2002/3 (a) 17 (b) 18	Cambridgeshire 2001 (Census) (a) 9.1% (b) 8.1%		Cambridge City Council Medium Term Objectives LPI
	% of children travelling to and from school by: (a) car (b) bicycle (c) bus (d) train (e) walk (f) other	N/a		2002/3 (a) 34% (b) 20% (c) 7% (d) 0% (e) 48% (f) 3%		Survey carried out for 2004	Cambridge City Council Medium Term Objectives QoL30 (new)

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% main rivers of good or fair quality (chemical & biological)	<b>SCDC:</b> 2004 Chemical 99% Biological 100%  <b>CCC:</b> N/a	Cambridgeshire and Peterborough 2000/02 Chemical 90% 2000 Biological 100%	<b>SCDC:</b> 2000/02 Chemical 100% 2000 Biological 100% 1997/99 Chemical 85% <b>CCC:</b> 2000/2 Chemical 100% Biological 100%	Cambridgeshire and Peterborough 1997/99 Chemical 75% 1998/2000 Biological 99%	The improving river quality in the District reflects improvements taking place across the county.	Environment Agency Cambridgeshire Structure Plan AMR indicator 16

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Minimise waste production and support the recycling of waste products	Household waste collected per person per year (kg)	<p><b>SCDC:</b> 2004-2005 438.2 (Source: South Cambs Recycling Waste and Minimisation monitoring 2004/2005)</p> <p><b>CCC:</b> 2003/4 429</p>	<p>Cambridgeshire 2003/4 498 (Hardcore included)</p>	<p><b>SCDC:</b> 2002 282 2003 352 <b>CCC:</b> 2002/3 438</p>	<p>Cambridgeshire (2001-02) 481 (Hardcore included)</p>	<p>The amount of waste produced per person is increasing in South Cambs. This will reduce the impact of increasing recycling and composting rates. The expected national increase in the amount of waste produced did not occur in 2003/4 in Cambridge. This is anticipated to increase in 2004/5.</p>	<p>District monitoring (BV84) City – Cambridge City Council Best Value Performance Plan BV84 Waste Data for Cambridgeshire 2001/2002 and 2003/2004 (BV184)</p>
	% household	<b>SCDC:</b>	Cambridgeshire	<b>SCDC:</b> 1999-	Cambridgeshire	<b>SCDC:</b> Recycling	Structure Plan AMR

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	waste collected which is recycled	<p><b>2004-2005</b> 46.72% (Source: South Cambs Recycling Waste and Minimisation Officer 2004/2005)</p> <p><b>CCC:</b> 13.5% recycled (2003/4) 9.9% composted</p>	<p>and Peterborough</p> <p>16.19% recycled (2002-03)</p> <p>18.5% recycled (2003-04)</p> <p>8.48% composted (2002-03)</p> <p>10.5% composted (2003-04)</p>	<p>2000</p> <p>10.1% recycled</p> <p>4.8% composted</p> <p>20.3% recycled (2002-03)</p> <p>5.3% composted (2002-03)</p> <p>(data excludes hardcore waste)</p> <p><b>CCC:</b> 11.7% recycled (2002/3)</p> <p>8.7% composted</p>	<p>e and Peterborough</p> <p>11.56% recycled (1999-2000)</p> <p>6.78% composted (1999-2000)</p>	<p>rates compare favourably with other Districts in Cambridgeshire, although the composting rate is slightly lower. Further work is required to meet the recycling target of 25% by 2005.</p> <p><b>CCC:</b> Cambridge combined recycling and composting figure has risen to 23.4%. The Government has set a combined target of 30% for Cambridge City by 2005.</p>	<p>Indicator 20</p> <p>Waste Data for Cambridgeshire Waste Local Plan</p> <p>City – Cambridge City Council Medium Term Objectives</p> <p>BV82a/QoI32 &amp; BV82b/QoI32</p>



Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Limit or reduce vulnerability to the effects of climate change (including flooding)	Area / number of properties within Environment Agency 1:100 year flood risk zone.	N/a	N/a	N/a	N/a	N/a	Appropriate indicators needs to be developed to monitor the impact of climate change. Possibly use GIS analysis of Environment Agency data to estimate no. of properties within flood risk areas.
<b>HEALTHY COMMUNITIES</b>							
Maintain and enhance human health	Life expectancy at birth (male & female)	<b>SCDC:</b> 2000-2002 Male – 79.0 Female – 83.0 <b>CCC:</b> 2000-2002 Male – 76.7 Female – 82.0	England & Wales 2000-2002 Male – 75.9 Female – 80.6	<b>SCDC:</b> 1999-2001 Male – 79.0 Female – 82.6 <b>CCC:</b> N/a	England & Wales 1999-2001 Male – 75.6 Female – 80.3	<b>SCDC:</b> Life expectancies in the District are significantly higher than the national average, and have risen alongside national rates.	Office of National Statistics Public health and health inequalities dataset 2004 – Cambridge City PCT
	% residents with limiting long-term illness ( <b>SCDC only</b> )	2004 12.7%	2004 East of England 15.6% England & Wales – 18.23 %	N/a	N/a	The age structure of the population of South Cambs is younger than that of the region overall – so less LLTI is to be expected.	Census of Population

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Excess winter deaths (CCC only)	2003/4 34	N/a	N/a	N/a	This indicator measures the number of deaths in winter months, over the average monthly death rate.	Cambridge City Council Medium Term Objectives LPI (new)
	Cyclists crossing the River Cam bridges screenline. (CCC only)	2004 18,469		2002 18,344			Cambridge County Council Monitoring

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Reduce and prevent crime, and reduce the fear of crime	Number of recorded crimes per 1,000 people	<b>SCDC:</b> 2003/04 57.0  <b>2004-2005</b> 48.5  <b>CCC:</b> 2003/04 159.2	Cambridgeshire 2004/5 79.2   93.6 or 90.2	<b>SCDC:</b> 2002/03 59.2  <b>2003/04</b> 57.0  <b>CCC:</b> 2002/03 158.9	Cambridgeshire 2002/03 90.9 or 93.6  <b>2003/04</b> 93.6	<b>SCDC:</b> Crime in South Cambridgeshire is significantly lower than the County average, and has decreased while it has actually increased in the County as a whole. This reflects the rural nature of the District.  <b>CCC:</b> Population figures used to generate rate based on RG population estimates for mid year 2002 and mid year 2003.	CCC Research Group; Home Office  County Council Research Group mid-2002 population estimates.  Cambridgeshire Crime Research team 2005.

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% residents feeling 'safe' or 'fairly safe' after dark	<p><b>SCDC:</b> 2002/03 70.0%</p> <p><b>CCC:</b> 2003/04 35%</p>	<p>Cambridgeshire 2002/03 56.0%</p> <p>2004 58.88%</p>	N/a	N/a	<p><b>SCDC:</b> The % of residents feeling safe after dark compares well to county levels, but indicates that there is still room for improvement.</p> <p><b>CCC:</b> 2003/04 survey 40% felt unsafe, with 25% neither safe nor unsafe.</p>	<p>Quality of life survey – CCC Research Group (no regional comparator) QoL15/LIB002 Cambridge City Council Medium term objectives LPI (new)</p>
Improve the quantity and quality of publicly accessible open space	Ha of strategic open space per 1,000 people ( <b>SCDC only</b> )	2004 4.3 ha/1000 *	<p>2004 Cambridgeshire 5.5 ha/1000 *</p> <p>Cambridgeshire and Peterborough 4.8 ha/1000 *</p>			<p>South Cambridgeshire does not compare favourably to countywide levels. New strategic open spaces are being planned as part of strategic housing developments.</p>	<p>Strategic Open Space study – CCC *All figures are combined 'natural greenspace' and 'parks &amp; gardens' ha/1000 population</p>

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Ha. of public open space per 1000 people. <b>(CCC only)</b>	Data awaited				Includes Amenity Green Spaces, Cemeteries, Semi-natural green spaces and Parks and Gardens where the main use is public.	Data from Open Space Recreation strategy 2004.
	Number of sports pitches available for public use per 1,000 people	<b>SCDC:</b> 2004 1.33 <b>CCC:</b> 1999 0.8				<b>SCDC:</b> Provision varies greatly across the District, and there are also issues of cross border usage, particularly close to Cambridge. District Audits provide a more detailed comparison of provision compared to need. <b>CCC:</b> The figure is for pitches in secure public use. The University sector also provides pitches which help to meet demand.	District monitoring through recreation audits. Pitches are for Hockey, football, Cricket, Rugby etc (not MUGA). QoL/LIB038 Future monitoring will be dependent on future open space audits. Assessment of Open Space in Cambridge, 1999

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	No. of playgrounds and play areas provided by the Council per 1000 children under 12. <b>(CCC only)</b>	2003/04 6.3		2002/03 4.6		The population figure used to calculate these indicators has dropped by 15% which has caused performance to appear to improve.	Best Value Performance Plan LPI
<b>INCLUSIVE COMMUNITIES</b>							
Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)	% of population in categories 1-3 for access to Primary school, food shop, post office and public transport.	<b>SCDC:</b> 2004 83% <b>CCC:</b> Awaiting data from County Council	Cambridgeshire 2004 % Of rural areas 81%			Reflects the fact that many small villages in the District have limited services available locally.	County monitoring; Countryside Agency. Structure Plan AMR Indicator 22. Choice of services measured was based on availability within the settlement of four basics - primary school, food shop, post office and public transport. % of population in categories 1-3.  No comparator data available, but Structure Plan AMR will provide future monitoring.

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% of residents by targeted group satisfied with the local authorities cultural and recreational activities: a) Sport/Leisure facilities b) Folk Museum c) Corn Exchange d) Parks/Open spaces, play areas and other recreation facilities / activities (CCC only)	2003/04  a) 64% b) 67% c) 69% d) 92%		2002/03  a) 58% b) 58% c) 60% d) 80%		Due to the number of survey respondents, these figures are accurate to within +/- 2.7%.	Cambridge City Council Medium Term Objectives LPI

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Redress inequalities related to age, gender, disability, race, faith, location and income	% residents who feel their local area is harmonious	<p><b>SCDC:</b> 2002/03 70.0%</p> <p><b>2003</b> 66.64% of people who replied strongly agreed or tended to strongly agree with the statement “the local community is a place where people from different backgrounds and communities can live together harmoniously”</p> <p><b>CCC:</b> no data</p>	Cambridgeshire 2002/03 64.0%	N/a	N/a	<p><b>SCDC:</b> District figures compare favourably to the county comparator, but there is still room for improvement.</p> <p><b>CCC:</b> Percentage of people surveyed who feel that their area is a place where people from different backgrounds get on well together.</p>	<p>Quality of life survey - CCC Research Group QoL25/LIB139</p> <p>Percentage of people surveyed who feel that their local area is a place where people from different backgrounds get on well together</p>



Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Index of multiple deprivation	<b>SCDC:</b> 2004 Average IMD score : 6.39 <b>CCC:</b> 2004 average IMD score 14.58 Rank of average score 230.	2004 Cambridgeshire average IMD score: 12.34	<b>SCDC:</b> 2000 Average IMD score: 7.33 <b>CCC:</b> 2000 Average IMD score: 14.72 Rank of average score 249		<b>SCDC:</b> South Cambridgeshire compares favourably to most regional and county deprivation indicators. <b>CCC:</b> Rank is out of 354 local authorities.	Office of Deputy Prime Minister, Indices of deprivation
	Range of income levels – 25 <sup>th</sup> and 75 <sup>th</sup> quartiles (CCC only)	2004 Lower quartile: £343.10 Upper quartile: £664.00 Range: £320.90	Cambridgeshire 2004 Lower quartile: £336.50 Upper quartile: £652.40 Range: £315.90	2003 Lower quartile: £333.70 Upper quartile: £641.90 Range: £308.20	Cambridgeshire 2003 Lower quartile: £315.60 Upper quartile: £624.80 Range: £309.20	Figures based on median gross weekly earnings.	ASHE

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Ensure all groups have access to decent, appropriate and affordable housing	House price/earnings ratio	<p><b>SCDC:</b></p> <p>2004 7.6</p> <p><b>CCC: 2004</b> 9.0</p>	<p>East of England 2003 6.6</p> <p>Cambs &amp; Peterborough 2004 7.3</p>	<p><b>SCDC:</b> 2002 6.1</p> <p>2003 6.6</p> <p><b>CCC:</b> 2003 9.8</p>	<p>East of England 2002 5.6</p> <p>Cambs &amp; Peterborough 2003 7.2</p>	<p><b>SCDC:</b> House price to earnings ratio in South Cambs is around the regional figure but both the South Cambs and region ratios are worsening.</p> <p><b>CCC:</b> Cambridge has the highest ratio in the County. Ratio has fallen slightly due to stable average house prices and rising wages for full time employees.</p>	<p>Land Registry &amp; New Earnings Survey House prices for January to March average. Earnings data for April.</p> <p>Structure Plan AMR Indicator 7</p>

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% of all dwellings completed that are 'affordable'	<p><b>SCDC:</b> 2004/05 19.3%</p> <p>108 affordable dwellings completed district-wide</p> <p>A total of 559 dwellings completed district wide.</p> <p><b>CCC:</b> 2003/04 21%</p>	<p>Cambridgeshire 2003 12%</p> <p>Cambridgeshire &amp; Peterborough 2003/04 15.2%</p>	<p><b>SCDC:</b> Average over period 1999-2003 9.8%</p> <p>2003 19%</p> <p><b>CCC:</b> 2002/03 15%</p>	<p>Cambridgeshire and Peterborough Average over period 1999-2003 10%</p> <p>Cambridgeshire and Peterborough 2002/03 12.3%</p>	<p><b>SCDC:</b> Rate is low compared to urban districts like Cambridge City, although actual numbers compare favourably with other Districts. Numbers of dwellings provided do not meet needs indicated by housing needs surveys.</p> <p><b>CCC:</b> Local Plan has a target of 30% in housing developments above a designed threshold. However this applies to all dwelling completions.</p>	<p>South Cambridgeshire District monitoring. Structure Plan AMR Indicator L.</p> <p>Cambridge City – Monitoring of Residential &amp; Student Accommodation Planning Permissions, Starts &amp; Completions, CCC March 2004.</p>
	Percentage of households that can afford to purchase the average first time buyer's property in the area ( <b>CCC only</b> )	2003/4 2.8%	N/a	2002/03 N/a	N/a		Cambridge City Council Medium Term Objectives QoL 13a (new)

**SA OF NORTH WEST CAMBRIDGE AREA ACTION PLAN**  
**AREA ACTION PLAN, ISSUES AND OPTIONS – INTERIM SA REPORT**

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	(i) Number of new homes built  (ii) Number of new houses brought back into occupation <b>(CCC only)</b>	2003/4 (i) 481  (ii) 11	Cambridgeshire & Peterborough 2003/4 (i) 3947	2002/3 (i) 164  (ii) 0	Cambridgeshire & Peterborough 2002/3 (i) 3485	Targets from Medium Term Objectives	City – (i) Monitoring of Residential & Student Accommodation Planning Permissions, Starts & Completions, CCC March 2004  (ii) Medium Term Objectives LPI (new)  Comparator – Structure Plan AMR Indicator G
Encourage and enable the active involvement of local people in community activities	% adults who feel they can influence decisions affecting their local area	<b>2003</b> 19.66% of people who replied strongly agreed or tended to agree with the statement “I can influence decisions affecting my local area”  <b>CCC: 2003</b> 27.0%	Cambridgeshire <b>2003</b> 17.22% of people who replied strongly agreed or tended to agree with the statement “I can influence decisions affecting my local area”	<b>SCDC:</b> 2002/03 22.0%	Cambridgeshire 2002/03 21.0%	Although the rate compares favourably to the county comparator, only 1 in 5 people feel they can influence local decisions.	Quality of life survey - CCC Research Group QoL23/LIB137  Quality of Life Survey 2003

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% adults who had given support to others (non-family) in past year	<b>SCDC:</b> <b>2003</b> 80.67% of people who replied said they had given support to others (non-family) in the last year  <b>CCC:</b> 2003 72.0%	<b>2003</b> 79.96% of people who replied said they had given support to others (non-family) in the last year	N/a	N/a		Quality of life survey - CCC Research Group Quality of Life Survey 2003

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
<b>ECONOMIC ACTIVITY</b>							
Help people gain access to satisfying work appropriate to their skills, potential and place of residence	Unemployment rate	<b>SCDC:</b> April 2005 a) 0.8% <b>October 2005</b> b) 2,300 <b>CCC:</b> Dec 2004 1.4%	Eastern Region <b>April 2005</b> a) 1.8% <b>October 2005</b> b) 171,100	<b>SCDC:</b> January 2004 1.0% January 2003 1.1% <b>CCC:</b> Dec 2003 1.4%	Cambridgeshire January 2004 1.7% Cambridgeshire Dec 2004 1.2% Cambridgeshire January 2003 1.7% Cambridgeshire December 2003 1.0%	<b>SCDC:</b> The unemployment rate in the District has remained consistently low. <b>CCC:</b> ONS claimant count unemployment figures and rates. Unemployment in Cambridge and the county is relatively unchanged over the past year at historically low rates.	Nomis / CCC Research Group ONS claimant count unemployment figures with CCC RG economically active denominator Structure Plan AMR Indicator 1

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	% residents aged 16-74 in employment working within 5km of home, or at home	<b>SCDC:</b> 2001 37.2% <b>CCC:</b> 2001 73%	East of England 2001 46.5% Cambridgeshire 2001 45%	N/a	N/a	South Cambs has a relatively widespread population and more concentrated workplaces. People are on average travelling further to work than they did in 1991. Survey was not carried out for 2004.	Census of Population
Support appropriate investment in people, places, communications and other infrastructure	Percentage of 15 year old pupils in schools maintained by the local authority achieving five or more GCSEs at grades A*-C or equivalent	<b>SCDC:</b> 2001 63.1% <b>CCC:</b> 2004 51.4%	Cambridgeshire 2001 53.6%	<b>SCDC:</b> no data <b>CCC:</b> 2003 51.1%	Cambridgeshire 1998 52.0%		QofL /BV38 (County Council monitoring) ELH County Monitoring

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Infrastructure investment (SCDC only)						County Monitoring. Structure Plan APR Indicator M: Investment secured for infrastructure and community facilities, including developer contributions for development that has an impact within the Plan area and the strategic improvements needed in the CSR Currently no data available



Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
Improve the efficiency, competitiveness, vitality and adaptability of the local economy	Annual net increase (or decrease) in VAT registered firms, %	<b>SCDC:</b> 2001/02 0.9% <b>CCC:</b> 2002/03 -0.8%	Cambridgeshire 2001/02 1.2% Cambridgeshire 2002/03 0.3%	<b>SCDC:</b> 2000/01 1.1% <b>CCC:</b> 2001/02 0.3%	Cambridgeshire 2000/01 1.1% Cambridgeshire 2001/02 2.1%	<b>SCDC:</b> From being significantly greater than the county rate in 1997/98, the South Cambs rate has steadily fallen and is now below the county rate <b>CCC:</b> VAT stocks at the end of the year – percentage change from end of year to end of next year. Stocks in VAT registered businesses fell in Cambridge over 2003. Growth also fell across the County to just 0.3% in 2003.	NOMIS / CCC Research Group VAT stocks at the end of the year – percentage change from end of year to end of next year Structure Plan AMR Indicator 3

Objective	Indicator	Current Situation		Trends		Assessment	Data Sources
		South Cambs / Cambridge	Comparator	South Cambs / Cambridge	Comparator		
	Economic activity rate (SCDC only)	83.7%	East of England 79.3%	N/a	N/a	South Cambs has very high rates of activity. However, as there are no higher education establishments in the district except part of Girton College (a part of Cambridge University), a significant proportion of young people leave home to study at university and so are not counted in either the numerator or denominator – so the rates are likely to be higher than average	Census of Pop / NOMIS / CCC Research Group Expressed as a percentage of the working age population

## APPENDIX 3

*Table 10: Sustainability Appraisal Framework - Comparison of Cambridge City and South Cambridgeshire Objectives.*

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
1. Provide people with a fulfilling occupation and good livelihood	1.1 provide a satisfying job or occupation for everyone who wants one?	7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence	Will it encourage business development?	Change to decision-making criteria: Will it improve <u>access to the range of employment opportunities to provide a satisfying job or occupation for everyone who wants one?</u>
	1.2 ensure everyone can afford a good standard of living (inc. housing)?	6.3 Ensure all groups have access to decent, appropriate and affordable housing 7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence		

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	1.3 keep the economy diverse adaptable and resilient to external changes and shocks?	7.3 Improve the efficiency, competitiveness, vitality and adaptability of the local economy	Will it improve business development and enhance competitiveness? Will it support the Cambridge area's position as a world leader in research and technology based industries, higher education and research, particularly through the development and expansion of clusters?	
	1.4 produce more of the goods and services consumed in Cambridge locally?	1.2 Reduce the use of non-renewable resources including energy sources		
	1.5 support community, voluntary and mutual self-help activities and community involvement in governance and services?	6.4 Encourage and enable the active involvement of local people in community activities	Will it increase the ability of people to influence decisions? Will it encourage engagement with community activities?	
	1.6 provide access to education and training for all?	7.2 Support appropriate investment in people, places, communications and other infrastructure	Will it improve access to education and training, and support provision of skilled employees to the economy?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
2. Share the benefits of prosperity fairly and provide services and facilities for all	2.1 reduce disparities in income levels?	6.2 Redress inequalities related to age, gender, disability, race, faith, location and income		
	2.2 provide services and facilities locally and near to users?	6.1 Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)	Will it improve accessibility to key local services and facilities, including health, education and leisure (village shops, post offices, pubs etc)?	
	2.3 regenerate and improve deprived areas?	6.2 Redress inequalities related to age, gender, disability, race, faith, location and income	Will it reduce poverty and social exclusion in those areas most affected?	No specific reference to regeneration, however this would not be relevant to the Cambridge East Area Action Plan and therefore no change proposed.

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	2.4 ensure everyone has access to decent, appropriate and affordable housing?	6.3 Ensure all groups have access to decent, appropriate and affordable housing	Will it support the provision of a range of housing types and sizes, including affordable and key worker housing, to meet the identified needs of all sectors of the community? Will it reduce the number of unfit homes? Will it meet the needs of the travelling community?	
	2.5 improve health and reduce health inequalities?	5.1 Maintain and enhance human health	Will it substantially reduce mortality rates? Will it encourage healthy lifestyles, including travel choices?	
	2.6 redress inequalities related to age, gender, disability, race, faith, location and income	6.2 Redress inequalities related to age, gender, disability, race, faith, location and income	Will it improve relations between people from different backgrounds or social groups? Will it reduce poverty and social exclusion in those areas most affected? Will it promote accessibility for all members of society, including the elderly and disabled?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
3. Maintain Cambridge as an attractive place to live, work and visit	3.1 maintain / improve the quality of the public realm?	3.2 Maintain and enhance the diversity and distinctiveness of landscape and townscape character	Will it maintain and enhance the diversity and distinctiveness of landscape and townscape character? Will it protect and enhance open spaces of amenity and recreational value?	
	3.2 keep the distinctive character and qualities of the built environment and create an attractive environment with a high quality of design	3.3 Create places, spaces and buildings that work well, wear well and look good	Will it maintain and enhance the diversity and distinctiveness of landscape and townscape character? Will it maintain and enhance the character of settlements? Will it lead to developments built to a high standard of design and good place making?	
	3.3 maintain / enhance built historic character and streetscape and historic landscape character	3.1 Avoid damage to areas and sites designated for their historic interest, and protect their settings.	Will it protect or enhance sites, features or areas of historical, archaeological, or cultural interest (including conservation areas, listed buildings, registered parks and gardens and scheduled monuments)?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	3.4 give residents and visitors access to a range of high quality arts and cultural activities, recreation and sport?	5.3 Improve the quantity and quality of publicly accessible open space 6.1 Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)	Will it increase the quantity and quality of publicly accessible open space? Will it improve accessibility to key local services and facilities, including health, education and leisure (village shops, post offices, pubs etc)?	Change to decision-making criteria <u>Will it improve the quality and range of services and facilities, including health, education, shopping, sport, leisure, arts and cultural activities?</u>
	3.5 promote healthy lifestyles?	5.1 Maintain and enhance human health	Will it encourage healthy lifestyles, including travel choices?	
	3.6 reduce crime, anti-social behaviour and fear of crime?	5.2 Reduce and prevent crime, and reduce the fear of crime	Will it reduce actual levels of crime? Will it reduce fear of crime?	
	3.7 maintain and enhance the role of the city centre as a focus for services and facilities?	7.3 Improve the efficiency, competitiveness, vitality and adaptability of the local economy	Will it protect the shopping hierarchy, supporting the vitality and viability of sub regional, town, district, and local centres?	Change to decision-making criteria : Will it protect the shopping hierarchy, supporting the vitality and viability of <u>sub regional Cambridge City Centre</u> , town, district, and local centres?



Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
4. Promote the sustainable use of land, buildings and green spaces	4.1 protect and enhance green spaces (including parks, children's play areas, allotments and sports pitches) and landscapes?	3.2 Maintain and enhance the diversity and distinctiveness of landscape and townscape character	Will it protect and enhance open spaces of amenity and recreational value?	
	4.2 minimise development of greenfield land and develop land with least environmental / amenity value?	1.1 Minimise the irreversible loss of undeveloped land and productive agricultural holdings  2.1 Avoid damage to designated sites and protected species 3.2 Maintain and enhance the diversity and distinctiveness of landscape and townscape character	Will it use land that has been previously developed? Will it use land efficiently? Will it protect and enhance the best and most versatile agricultural land? Will it protect sites designated for nature conservation interest? Will it protect and enhance open spaces of amenity and recreational value?	
	4.3 ensure that new development is built to a high sustainability standard	3.3 Create places, spaces and buildings that work well, wear well and look good	Will it lead to developments built to a high standard of design and good place making?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	4.4 manage and minimise flood risk taking into account climate change?	4.3 Limit or reduce vulnerability to the effects of climate change (including flooding)	Will it minimise risk to people and property from flooding, storm events or subsidence?	
	4.5 protect and enhance wildlife and habitats, and ensure all land uses maximise opportunities for wildlife?	2.1 Avoid damage to designated sites and protected species  2.2 Maintain and enhance the range and viability of characteristic habitats and species  2.3 Improve opportunities for people to access and appreciate wildlife and wild places	Will it protect sites of nature conservation interest? Will it conserve species, reversing declines, and help to enhance diversity? Will it reduce habitat fragmentation? Will it help achieve Biodiversity Action Plan targets? Will it improve access to wildlife, and wild places?	
	4.6 improve water quality of surface watercourses and groundwater?			Change to decision-making criteria: Will it <u>improve water quality including by reducing</u> diffuse and point source water pollution?

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
5. Minimise environmental damage resulting from the use of resources	5.1 minimise consumption of environmental resources and use materials from sustainable sources?			Change objective: 1.2. Reduce the use of non-renewable resources, including energy sources
	5.2 reduce greenhouse gas emissions (by minimising consumption of energy, increasing energy efficiency and increasing the renewable share of energy production)?	1.2 Reduce the use of non-renewable energy sources including energy sources	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	
	5.3 minimise use of water?	1.3 Limit water consumption to levels supportable by natural processes and storage systems	Will it reduce water consumption? Will it conserve ground water resources?	
	5.4 reduce waste and encourage re-use and recycling at locally based facilities?	4.2 Minimise waste production and support the recycling of waste products	Will it reduce household waste? Will it increase waste recovery and recycling?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	5.5 reduce sources of pollution including air, water, land, noise, vibration and light?	4.1 Reduce emissions of greenhouse gasses and other pollutants (including air, water, soil, noise, vibration and light)	Will it reduce emissions of greenhouse gases? Will it improve air quality? Will it reduce traffic volumes? Will it support travel by means other than the car? Will it reduce levels of noise or noise concerns? Will it reduce or minimise light pollution? Will it reduce diffuse and point source water pollution?	

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
6. Minimise damage and disruption from transport	6.1 increase practicality and attractiveness of environmentally better modes including public transport, cycling and walking?	6.1 Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)  7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence	Will it improve accessibility to key local services and facilities, including health, education and leisure (village shops, post offices, pubs etc)? Will it improve accessibility by means other than the car? Will it support and improve community and public transport? Will it improve access to employment / access to employment by means other than the car?	Change to decision-making criteria: Will it improve accessibility by means other than the car <u>and improve the attractiveness of environmentally better modes including public transport, cycling and walking?</u>

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	6.2 reduce the need to travel?	<p>6.1 Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)</p> <p>7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence</p>	<p>Will it improve accessibility to key local services and facilities, including health, education and leisure (village shops, post offices, pubs etc)?</p> <p>Will it improve accessibility by means other than the car?</p> <p>Will it support and improve community and public transport?</p> <p>Will it improve access to employment / access to employment by means other than the car?</p>	<p>Will it improve accessibility to key local services and facilities, including health, education and leisure (village shops, post offices, pubs etc)?</p>

Cambridge City Council		Relevant SCDC Objective	Equivalent SCDC Decision Making Criteria	Changes Made For North West Cambridge Appraisal Framework:
Objective	Question: Will this policy or proposal help to...			
	6.3 reduce dependency on the private car?	6.1 Improve the quality, range and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities) 7.1 Help people gain access to satisfying work appropriate to their skills, potential and place of residence	Will it improve accessibility by means other than the car?  Will it improve access to employment / access to employment by means other than the car?	Will it improve accessibility to local employment by means other than the car?  Will it improve accessibility by means other than the car <u>and</u> improve the attractiveness of environmentally better modes including public transport, cycling and walking?
	6.4 minimise traffic and its impacts?	4.1 Reduce emissions of greenhouse gasses and other pollutants (including air, water, soil, noise, vibration and light)	Will it reduce emissions of greenhouse gases? Will it improve air quality? Will it reduce traffic volumes? Will it support travel by means other than the car? Will it reduce levels of noise or noise concerns?	

## GLOSSARY

<b>Alternative</b>	See 'options'.
<b>Area Action Plan (AAP)</b>	A type of Development Plan Document focusing on implementation, providing an important mechanism for ensuring development of an appropriate scale, mix and quality for key areas of opportunity, change or conservation.
<b>Adoption statement</b>	<p>A statement prepared by the Local Planning Authority notifying the public that the Development Plan Document or Supplementary Planning Document has been adopted. This is required by Regulation 36 for Development Plan Documents and Regulation 19 for Supplementary Planning Document in the Town and Country Planning (Local Development) (England) Regulations 2004.</p> <p>A statement on the main issues raised during the consultation on the sustainability appraisal and how these were taken into account in the development of the Development Plan Documents or Supplementary Planning Documents as required by the Strategic Environmental Assessment Directive, is recommended to be included in the Adoption Statement.</p>
<b>Annual Monitoring Report (AMR)</b>	Assesses the implementation of the Local Development Scheme and the extent to which policies in Local Development Documents are being achieved.
<b>Consultation Body</b>	An authority which because of its environmental responsibilities is likely to be concerned by the effects of implementing plans and programmes and must be consulted under the SEA Directive. The Consultation Bodies in England are the Countryside Agency, English Heritage, English Nature and the Environment Agency.
<b>Consultation Statement</b>	A statement prepared by a Local Planning Authority for a Supplementary Planning Document under regulation 17 (1) of the Town and Country Planning (Local Development) (England) Regulations 2004.
<b>Core Strategy</b>	Should set out the key elements of the planning framework for the area. It should comprise: a spatial vision and strategic objectives for the area; a spatial strategy; core policies; and a monitoring and implementation framework with clear objectives for achieving delivery.



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<b>Development Plan Documents (DPD)</b>	A type of Local Development Document. DPDs include the Core Strategy, site-specific allocations of land and Area Action Plans (where needed).
<b>Environmental Impact Assessment (EIA)</b>	A generic term used to describe environmental assessment as applied to projects. In this guide 'EIA' is used to refer to the type of assessment required under the European Directive 337/85/EEC.
<b>Indicator</b>	A measure of variables over time, often used to measure achievement of objectives.
<b>Output indicator</b>	An indicator that measures the direct output of the plan or programme. These indicators measure progress in achieving a plan objective, targets and policies.
<b>Significant effects indicator</b>	An indicator that measures the significant effects of the plan.
<b>Contextual indicator</b>	An indicator used in monitoring that measures changes in the context within which a plan is being implemented.
<b>Local Development Document (LDD)</b>	There are two types of Local Development Document: Development Plan Documents and Supplementary Planning Documents.
<b>Local Development Framework (LDF)</b>	Sets out, in the form of a 'portfolio', the Local Development Documents which collectively deliver the spatial planning strategy for the area in question. The LDF also includes the Statement of Community Involvement, the Local Development Scheme and the Annual Monitoring Report.
<b>Local Development Scheme (LDS)</b>	Sets out the local authority's programme for preparing the Local Development Documents.
<b>Local Development Regulations</b>	Town and Country Planning (Local Development) (England) Regulations 2004.  Town and Country Planning (Transitional Arrangements) (England) Regulations 2004.
<b>Mitigation</b>	Used to refer to measures to avoid, reduce or offset significant adverse effects on the environment.
<b>Objective</b>	A statement of what is intended, specifying the desired direction of change in trends.
<b>Option</b>	The range of rational choices open to plan-makers for delivering the plan objectives. 'Option' is taken to be synonymous with 'alternative' in the SEA Directive.
<b>Plan</b>	For the purposes of the SEA Directive this is used to refer to all of the documents to which this guidance applies, including Regional Spatial Strategy

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	revisions and Development Plan Documents. Supplementary Planning Documents are not part of the statutory Development Plan but are required to have a sustainability appraisal.
<b>PPS11</b>	Planning Policy Statement 11: Regional Spatial Strategies
<b>PPS12</b>	Planning Policy Statement 12: Local Development Frameworks
<b>Pre-submission consultation statement</b>	A statement prepared by a Local Planning Authority for a Development Plan Document pursuant to regulation 28(1)(c) of the Town and Country Planning (Local Development) (England) Regulations 2004.
<b>Scoping</b>	The process of deciding the scope and level of detail of a Sustainability Appraisal.
<b>Screening</b>	The process of deciding whether a document requires a SA.
<b>SEA Directive</b>	European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment
<b>SEA Regulations</b>	The Environmental Assessment of Plans and Programmes Regulations 2004 (which transposed the SEA Directive into law).
<b>Statement of Community Involvement (SCI)</b>	A statement setting out the consultation procedures for a Local Planning Authority. Explains to stakeholders and the community how and when they will be involved in the preparation of the Local Development Framework, and the steps that will be taken to facilitate this involvement.
<b>Strategic Environmental Assessment (SEA)</b>	Generic term used internationally to describe environmental assessment as applied to policies, plans and programmes. In the UK, SEA is increasingly used to refer to an environmental assessment in compliance with the 'SEA Directive'.
<b>Supplementary Planning Document (SPD)</b>	A type of Local Development Document. Supplementary Planning Documents are intended to elaborate on DPD policies and proposals but do not have their statutory status.
<b>Sustainability Appraisal (SA)</b>	Generic term used to describe a form of assessment which considers the economic, social and environmental effects of an initiative. SA, as applied to Local Development Documents, incorporates the requirements of the SEA Directive.

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**Sustainability issues**

The full cross-section of sustainability issues, including social, environmental and economic factors.