



## Cambridge Northern Fringe East Area Action Plan

### Interim Sustainability Appraisal Report

### Annex A: Detailed Assessment Tables

Prepared for:  
**South Cambridgeshire District Council and Cambridge City Council**

Prepared by:  
**ENVIRON**  
Exeter, UK

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Author (signature):	V Pearson/ E Jones
Project Manager/Director (signature):	J Curran
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Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
<b>Land</b>							
<b>1. Minimise the irreversible loss of undeveloped land, protect soils and economic mineral reserves.</b>	<ul style="list-style-type: none"> <li>Will it use land that has been previously developed?</li> <li>Will it use land efficiently?</li> <li>Will it minimise the degradation/loss of soils due to new development?</li> <li>Will it avoid the sterilisation of economic mineral reserves?</li> <li>Will it promote resource efficiency and recycling?</li> </ul>	<p>The majority of the AAP is previously developed land and contains some contaminated land. Additional borehole investigations are being carried out to better understand the spread of contaminants across CNFE.</p> <p>There is an area of Green Belt to the NE corner of the site (which coincides with a minerals safeguarding area for sand and gravel). Forms part of an area of search for a household waste recycling centre to serve the north of Cambridge, and is a location for inert waste recycling.</p> <p>A large part of the AAP site is occupied by the Anglian Water Cambridge Water Recycling Centre (WRC) – formerly known as the Milton Waste Water Treatment Works. The WRC is an area safeguarded for its ongoing use.</p> <p>The WRC is currently undergoing a £20M plus upgrade to meet the local growth needs to 2031.</p>	+	+ / ?	++ / ?	++ / ?	++ / ?
			<p>The committed development within the AAP boundary includes a new railway station and an extension of the Cambridgeshire Guided Busway to form a new transport interchange. The interchange proposals include parking for 450 cars and around 1000 bicycles. These developments will utilise previously developed land.</p> <p>This option may not involve the intensification of land uses and therefore may not represent as efficient a use of land when compared with the other options.</p> <p>This option will not result in any large scale remediation of contaminated land within the AAP.</p> <p>The minerals safeguarding area will be protected in this option.</p>	<p>The option will result in the use of land previously developed although this will be fairly minimal as this option focuses on land that is more easily available.</p> <p>The minerals safeguarding area will be protected in this option.</p> <p>This option will not result in any large scale remediation of contaminated land within the AAP.</p> <p><b>Mitigation:</b> Each parcel of land to be redeveloped will require a full and detailed site investigation in order to determine ground conditions and the presence, or not, of contamination. The Implementation Phasing Strategy will need to include a comprehensive Remediation Plan setting out the level of remediation required. A much higher standard of remediation would be required for sensitive developments such as residential dwellings with gardens. Residential gardens may not be suitable in some parts of the AAP area. Residential uses are proposed in areas where chlorinated solvents, Hydrocarbons, gases and vapours, PAHs, and diesel range organics have previously been identified (Nuffield Road area and near the proposed station).</p>	<p>The option will result in the use of land previously developed and represents an intensive redevelopment.</p> <p>The minerals safeguarding area will be protected in this option.</p> <p><b>Mitigation:</b> Each parcel of land will require a full and detailed site investigation in order to determine ground conditions and the presence, or not, of contamination. The Implementation Phasing Strategy will need to include a comprehensive Remediation Plan setting out the level of remediation required. A much higher standard of remediation would be required for sensitive developments such as residential dwellings with gardens. Residential gardens may not be suitable in some parts of the AAP area. Residential uses are proposed in areas where chlorinated solvents, Hydrocarbons, gases and vapours, PAHs, and diesel range organics have previously been identified (Nuffield Road area and near the proposed station).</p> <p>Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit</p>	<p>The option will result in the use of land previously developed and represents a more intensive redevelopment than Options 1 and 2.</p> <p>The minerals safeguarding area will be protected in this option.</p> <p><b>Mitigation:</b> Each parcel of land will require a full and detailed site investigation in order to determine ground conditions and the presence, or not, of contamination. The Implementation Phasing Strategy will need to include a comprehensive Remediation Plan setting out the level of remediation required. A much higher standard of remediation would be required for sensitive developments such as residential dwellings with gardens. Residential gardens may not be suitable in some parts of the AAP area. Residential uses are proposed in areas where chlorinated solvents, Hydrocarbons, gases and vapours, PAHs, and diesel range organics have previously been identified (Nuffield Road area and near the proposed station).</p> <p>Redevelopment of this scale will utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as</p>	<p>The option will result in the use of land previously developed and represents an even more intensive redevelopment than Option 3.</p> <p>The minerals safeguarding area will be protected in this option.</p> <p><b>Mitigation:</b> Each parcel of land will require a full and detailed site investigation in order to determine ground conditions and the presence, or not, of contamination. The Implementation Phasing Strategy will need to include a comprehensive Remediation Plan setting out the level of remediation required. A much higher standard of remediation would be required for sensitive developments such as residential dwellings with gardens. Residential gardens may not be suitable in some parts of the AAP area. Residential uses are proposed in areas where chlorinated solvents, Hydrocarbons, gases and vapours, PAHs, and diesel range organics have previously been identified (Nuffield Road area and near the proposed station).</p> <p>Redevelopment of this scale will utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as materials from redundant buildings, should</p>

Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
				<p>Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications</p>	<p>and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications</p>	<p>materials from redundant buildings, should be reused as far as practicable.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.</p>	<p>be reused as far as practicable.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.</p>
Environmental Quality and pollution							
<p><b>2. Improve air quality and minimise or mitigate against sources of environmental pollution</b></p>	<ul style="list-style-type: none"> <li>Will it maintain and improve air quality around the AAP and along the routes to the City including the A14?</li> <li>Will it ensure that dust pollution does not affect sensitive receptors?</li> <li>Will it minimise, and where possible improve on, unacceptable levels of noise pollution, and vibration?</li> <li>Will it minimise odour impacts?</li> <li>Will it remediate contaminated land?</li> </ul>	<p>Air quality issues have been identified along the A14 which is the main access road into the City from the AAP. The A14 is being upgraded.</p> <p>Ongoing operation of the aggregates importing businesses will generate dust and this must be dealt with by the AAP.</p> <p>Operations associated with the ongoing use of railway for aggregates importation will produce noise and vibration issues.</p> <p>Baseline data includes odour zones centred on the WRC. This will have impacts in terms of what class and type of development is suitable in certain locations in the AAP.</p> <p>The AAP area contains some contaminated land.</p>	-	?	?	?	?
			<p>This option will mainly have a neutral impact on this SA Objective. However, the new transport interchange will create new sources of noise from trains and the station public address system in this southern part of the AAP area. It is assumed that potential impacts on existing receptors will be mitigated through the planning application process.</p>	<p>Information is not available on potential air quality and noise impacts relating to the redevelopment as transport modelling is not completed.</p> <p>This option does not improve pedestrian and cycle access through Cambridge Business Park or across to the Science park. Traffic impacts on Milton Road and existing junctions need to be addressed.</p>	<p>Information is not available on potential air quality and noise impacts relating to the redevelopment as transport modelling is not completed.</p> <p>The reduction in industrial and storage land in this option potentially may reduce the air quality and pollution impacts of this option by comparison to the other options.</p> <p>This option includes a dedicated HGV route which should avoid some noise and air quality impacts from traffic in the southern part of the</p>	<p>Information is not available on potential air quality and noise impacts relating to the redevelopment as transport modelling is not completed.</p> <p>The reduction of the WRC site allows more land to be redeveloped and reduces the area affected by odour.</p> <p>A new road parallel to Cowley Road (north-south route) will remove industrial traffic from the road and potentially improve air quality and noise impacts for adjacent residential areas.</p>	<p>Information is not available on potential air quality and noise impacts relating to the redevelopment as transport modelling is not completed.</p> <p>The removal of the WRC from the AAP allows comprehensive redevelopment of the site and avoids most potential impacts from odour and the constraint that this poses to the other options. However, some odour impact may be associated with the pumping station which will need to remain on</p>

SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
			<p>The ongoing operation of the aggregates importing business will generate dust and noise and vibration.</p> <p>This option currently includes some uses within the WRC odour zones which may be negatively affected by odour and insects.</p>	<p>This spatial option has been designed to avoid sensitive uses within the WRC odour zones.</p> <p>The concrete batching plant is relocated further north in the AAP area so that it is closer to the aggregates railhead and sidings.</p>	<p>AAP area, including the station and local centre.</p> <p>This option includes better movement across the area for cyclists and pedestrians compared with option 1.</p> <p>There could be potential impacts on Milton Road and existing junctions due to the amount of development proposed.</p> <p>This spatial option has been designed to avoid sensitive uses within the WRC odour zones.</p> <p>The concrete batching plant is relocated further north in the AAP area so that it is closer to the aggregates railhead and sidings.</p> <p>The new residential uses proposed in this option will require noise mitigation.</p>	<p>There could be potential impacts on Milton Road and existing junctions due to the larger amount of development proposed compared with Options 1 and 2.</p> <p>The concrete batching plant is relocated further north in the AAP area so that it is closer to the aggregates railhead and sidings.</p> <p>The new residential uses proposed in this option will require noise mitigation.</p>	<p>site and that is why employment uses have been identified in this location in option 4.</p> <p>This option creates a more accessible and better connected layout than other options which should better support walking and cycling across the site.</p> <p>There could be potential impacts on Milton Road and existing junctions due to the larger amount of development proposed compared with Options 1 and 2.</p> <p>The concrete batching plant is relocated further north in the AAP area so that it is closer to the aggregates railhead and sidings.</p> <p>The new residential uses proposed in this option will require noise mitigation.</p>
<b>3. Protect and where possible enhance the quality of the water environment</b>	<ul style="list-style-type: none"> <li>Will it ensure that groundwater is protected?</li> <li>Will it enhance surface water features including the quality of water entering the First Public Drain and the River Cam?</li> </ul>	<p>The AAP area is drained by the First Public Drain</p> <p>Ground water levels in the AAP area may be high.</p> <p>The First Public Drain is a significant watercourse for Cambridge. As well as the Science Park, a large portion of north Cambridge drains into this watercourse.<sup>1</sup> The First Public Drain is not designated as main river, it is therefore not monitored by the Environment Agency.</p> <p>The River Cam into which it drains has moderate</p>	<p>~</p> <p>No current water quality issues have been identified within the baseline data e.g. within the First Public Drain.</p>	<p>+</p> <p>This option has the potential to improve watercourses within the AAP area and includes them as part of improved green infrastructure on the site.</p>	<p>+</p> <p>This option has the potential to improve watercourses within the AAP area and includes them as part of improved green infrastructure on the site.</p> <p>Construction practices would need to be carefully managed through a CEMP in order to avoid pollution entering watercourses during construction.</p>	<p>~</p> <p>This option moves the aggregate sidings closer to a watercourse and therefore pollution risks would need to be carefully managed.</p> <p>Otherwise, this option further enhances green infrastructure on the site which contains the on site watercourses.</p> <p>Construction practices would need to be carefully managed through a CEMP in order to avoid pollution entering watercourses during construction.</p>	<p>~</p> <p>This options moves the aggregate sidings closer to a watercourse and therefore pollution risks would need to be carefully managed.</p> <p>Otherwise, this option further enhances green infrastructure on the site which contains the on site watercourses.</p> <p>Construction practices would need to be carefully managed through a CEMP in order to avoid pollution entering watercourses during construction.</p>

<sup>1</sup> Cambridge Northern Fringe East Area Flood Risk Assessment DRAFT (May 2014)



Table A.1 Appraisal of Spatial Redevelopment Options							
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		ecological quality and good chemical quality. <sup>2</sup> The Phase 1 Water Cycle Strategy for the Major Growth Sites identified no insurmountable technical constraints to the proposed levels of growth.					
<b>Biodiversity, flora and fauna</b>							
<b>4. Avoid adverse effects on designated sites and protected species</b>	<ul style="list-style-type: none"> <li>Will it conserve protected species (including Jersey Cudweed) and protect sites designated for nature conservation interest (including Local Nature Reserves and Wildlife Sites), and geodiversity?</li> </ul>	Chesterton Sidings includes an area of Jersey Cudweed. This is a protected species under Schedule 8 of the Wildlife and Countryside Act 1981. Development must incorporate measures for protecting this species. No SSSIs are present in the AAP. The AAP includes a Local Nature Reserve (Bramblefields) in the southeast (also designated as Open Space), and a City Wildlife Site.	~	+	+	++	++
			City Wildlife Site will remain as it is. It is currently isolated from other green infrastructure. The LNR is located close to the new transport interchange and it is assumed that potential negative impacts on the LNR will be mitigated through the planning application process.	In this option the City Wildlife Site is integrated within a network of green infrastructure across the AAP site which should result in a beneficial impact on the City Wildlife Site.	In this option the City Wildlife Site is integrated within a network of green infrastructure across the AAP site which should result in a beneficial impact on the City Wildlife Site.	In this option the City Wildlife Site is integrated within a network of green infrastructure across the AAP site which should result in a beneficial impact on the City Wildlife Site. In this option, as for Option 4, the green infrastructure network proposed on the AAP site covers a larger area compared to Options 1 and 2 and the 'Do Nothing/Committed Development' option.	In this option the City Wildlife Site is integrated within a network of green infrastructure across the AAP site which should result in a beneficial impact on the City Wildlife Site. In this option, as for Option 4, the green infrastructure network proposed on the AAP site covers a larger area compared to Options 1 and 2 and the 'Do Nothing/Committed Development' option.
<b>5. Maintain and enhance the range and viability of characteristic habitats and species and improve opportunities for people to access</b>	<ul style="list-style-type: none"> <li>Will it deliver net gains in biodiversity?</li> <li>Will it reduce habitat fragmentation, maintain and enhance connectivity</li> </ul>	The AAP both includes and is adjacent to natural habitat some of which is designated for nature conservation. The AAP falls within Strategic Area 6: Cambridge and surrounding areas, in the	~	+	+	++	++

<sup>2</sup>Environment Agency, What's in my backyard, [http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=wfd\\_rivers&ep=map&x=548964.0005000001&y=245062.001&scale=7&lang=\\_e&layerGroups=default&layerGroupToQuery=1&textonly=off#x=547748&y=261231&lq=2,7,8,9,&scale=9](http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=wfd_rivers&ep=map&x=548964.0005000001&y=245062.001&scale=7&lang=_e&layerGroups=default&layerGroupToQuery=1&textonly=off#x=547748&y=261231&lq=2,7,8,9,&scale=9) (Environment Agency, 2014)

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<b>and appreciate wildlife and green spaces</b>	<p>between existing green and blue infrastructure and enhance key native habitats?</p> <ul style="list-style-type: none"> <li>• Will it help deliver habitat restoration ((helping to achieve Biodiversity Action Plan Targets)?</li> <li>• Will it improve access to wildlife and green spaces, through delivery of and access to green infrastructure?</li> </ul>	<p>Cambridgeshire Green Infrastructure Strategy.<sup>3</sup></p> <p>The northern fringe of Cambridge includes areas with a deficiency in Accessible Natural Green Space (ANGS) at the 20ha plus standard. At the 2ha plus standard there are significant deficiencies across the whole area.<sup>4</sup></p> <p>Green Infrastructure within the AAP includes allotments and the Local Nature Reserve to the south, and the First Public Drain which is lined with willow coppice on some stretches, and the Guided Busway route is a green corridor.</p> <p>In a representation to the South Cambridgeshire Local Plan policy SS4, the Wildlife Trust stated that: "The planning application already submitted for the development of the new station at Chesterton Sidings has identified the site's importance for biodiversity. Mitigation, compensation and enhancement will be needed if the site is to be developed. The Green Infrastructure element of the development also needs to be co-ordinated outside the site boundaries."</p>	<p>This option will not result in net gains for biodiversity or improve habitat connectivity and reduce fragmentation. It will not help to improve access to green spaces or deliver habitat restoration.</p>	<p>This option should deliver net gains in biodiversity and will improve habitat connectivity, resulting in an enhanced (compared to the 'Do Nothing/Committed Development' option) and comprehensive green infrastructure network across the site which links into the new open space on the site and the existing open space to the south of the AAP boundary (including existing allotments and the Bramblefields LNR). This option proposes redevelopment of a small part of the Chesterton Sidings, the ecological value of which is uncertain but it could be important for biodiversity.</p> <p><b>Mitigation:</b> ecological assessment and, if necessary, mitigation, compensation and enhancement will be needed for loss of habitat and species for the part of the Chesterton Sidings which are proposed for redevelopment.</p> <p><b>Enhancement:</b> Policies relating to specific habitats restoration / creation should be included within the AAP.</p>	<p>This option should deliver net gains in biodiversity and will improve habitat connectivity, resulting in an enhanced (compared to the 'Do Nothing/Committed Development' option and Option 1) and comprehensive green infrastructure network across the site which links into the new open space on the site and the existing open space to the south of the AAP boundary (including existing allotments and the Bramblefields LNR). This option proposes redevelopment of a small part of the Chesterton Sidings, the ecological value of which is uncertain but it could be important for biodiversity</p> <p><b>Mitigation:</b> ecological assessment and, if necessary, mitigation, compensation and enhancement will be needed for loss of habitat and species for the part of the Chesterton Sidings which are proposed for redevelopment.</p> <p><b>Enhancement:</b> Policies relating to specific habitats restoration / creation should be included within the AAP.</p>	<p>This option should deliver net gains in biodiversity and will improve habitat connectivity, resulting in an enhanced (compared to Options 1 and 2) and more comprehensive green infrastructure network across the site which links into the new open space on the site and the existing open space to the south of the AAP boundary (including existing allotments and the Bramblefields LNR). This option proposes redevelopment of a small part of the Chesterton Sidings, the ecological value of which is uncertain but it could be important for biodiversity</p> <p><b>Mitigation:</b> ecological assessment and, if necessary, mitigation, compensation and enhancement will be needed for loss of habitat and species for the part of the Chesterton Sidings which are proposed for redevelopment.</p> <p><b>Enhancement:</b> Policies relating to specific habitats restoration / creation should be included within the AAP.</p>	<p>This option should deliver net gains in biodiversity and will improve habitat connectivity, resulting in an enhanced (compared to Options 1 and 2) and more comprehensive green infrastructure network across the site which links into the new open space on the site and the existing open space to the south of the AAP boundary (including existing allotments and the Bramblefields LNR). This option proposes a greater redevelopment of the Chesterton Sidings, the ecological value of which is uncertain but it could be important for biodiversity.</p> <p><b>Mitigation:</b> ecological assessment and, if necessary, mitigation, compensation and enhancement will be needed for loss of habitat and species for the part of the Chesterton Sidings which are proposed for redevelopment.</p> <p><b>Enhancement:</b> Policies relating to specific habitats restoration / creation should be included within the AAP.</p>
<b>Landscape, townscape and cultural heritage</b>							

<sup>3</sup> Green Infrastructure Forum, Cambridge Green Infrastructure Strategy, (2011), 114

<sup>4</sup> Green Infrastructure Forum, Cambridge Green Infrastructure Strategy, (2011), 116.

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SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
6. Maintain and enhance the diversity and local distinctiveness of landscape and townscape character	<ul style="list-style-type: none"> <li>Will it maintain and enhance the distinctiveness of landscape character, and the character of the Cambridge Green Belt?</li> <li>Will it maintain and enhance the diversity and distinctiveness of townscape character?</li> <li>Will it ensure the scale of development is sensitive to the existing key landmark buildings and low lying topography of the City?</li> <li>Will it conserve and enhance the historic environment, heritage assets and their settings through appropriate design and scale of development?</li> <li>Will it lead to developments built to a high standard of design and good place making that reflects local character?</li> </ul>	<p>The Cambridgeshire Green Belt is adjacent to the east and north of the proposed AAP boundary. There are no Conservation Areas, Listed Buildings, registered parks and gardens or scheduled monuments in the AAP. However, it is not known whether there is underground archaeology. Archaeological investigations to date have not revealed anything of particular note in the area. However, it is likely that an archaeological investigation will be required before any significant development takes place</p>	~	?	?	?	?
			<p>This option will not result in either beneficial or adverse impacts with regards to landscape, townscape and historic assets.</p> <p>Option will result in improvements to station approach to create green boulevard and activity around the station. It will also improve green areas and watercourses on the site.</p> <p>Limited redevelopment opportunities prevent wide scale changes to appearance of the AAP area.</p> <p>Landscape character and visual impacts with regards to the Cambridge Green Belt and the City Townscape are to be assessed shortly but findings will not be available to inform Issues and Options.</p> <p><b>Mitigation:</b> Findings of landscape and visual assessment required to complete assessment.</p> <p>Due to uncertainty, it is likely that an archaeological investigation will be required before any significant development takes place</p>	<p>Option will result in improvements to station approach to create green boulevard and activity around the station. It will also improve green areas and watercourses on the site.</p> <p>This options represents an opportunity to improve the setting and approach to Cambridge. It includes significant open space close to a new local centre.</p> <p>Landscape character and visual impacts with regards to the Cambridge Green Belt and the City Townscape are to be assessed shortly but findings will not be available to inform Issues and Options.</p> <p><b>Mitigation:</b> Findings of landscape and visual assessment required to complete assessment.</p> <p>Due to uncertainty, it is likely that an archaeological investigation will be required before any significant development takes place</p>	<p>Option will result in improvements to station approach to create green boulevard and activity around the station. It will also improve green areas and watercourses on the site.</p> <p>This options represents an opportunity to improve the setting and approach to Cambridge. It includes significant open space close to a new local centre.</p> <p>The existing overhead lines will be undergrounded which will improve the appearance of the AAP area.</p> <p>Landscape character and visual impacts with regards to the Cambridge Green Belt and the City Townscape are to be assessed shortly but findings will not be available to inform Issues and Options.</p> <p><b>Mitigation:</b> Findings of landscape and visual assessment required to complete assessment.</p> <p>Due to uncertainty, it is likely that an archaeological investigation will be required before any significant development takes place</p>	<p>Option will result in improvements to station approach to create green boulevard and activity around the station. It will also improve green areas and watercourses on the site.</p> <p>This options represents an opportunity to improve the setting and approach to Cambridge. It includes significant open space (more than the other options) close to a new local centre.</p> <p>The existing overhead lines will be undergrounded which will improve the appearance of the AAP area.</p> <p>Landscape character and visual impacts with regards to the Cambridge Green Belt and the City Townscape are to be assessed shortly but findings will not be available to inform Issues and Options.</p> <p><b>Mitigation:</b> Findings of landscape and visual assessment required to complete assessment.</p> <p>Due to uncertainty, it is likely that an archaeological investigation will be required before any significant development takes place</p>	
<b>Climate Change</b>							
			~	+	+	++	++



<b>SA Objective</b>	<b>Proposed Sub-Objective / Decision-aiding questions</b>	<b>Baseline data</b>	<b>Do Nothing</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>	<b>Option 4</b>
<b>7. Minimise impacts on climate change (including greenhouse gas emissions)</b>	<ul style="list-style-type: none"> <li>• Will it ensure deployment of energy efficiency and renewable energy technologies?</li> <li>• Will it minimise contributions to climate change through sustainable construction practices?</li> </ul>	In terms of carbon emissions, new development in Cambridge is expected to result in significant emissions growth over the period to 2020. It is assumed that beyond 2020, zero carbon policy will ensure that new development imposes no net increase in CO <sub>2</sub> emissions.	<p>This option will have a neutral impact. It is assumed that it will not result in a significant change in energy efficiency and renewable energy technologies on site.</p> <p>It will not result in any large scale redevelopment of the site and therefore will minimise climate change contributions (e.g. greenhouse gas emissions) through construction.</p>	<p>This option involves low growth and it is assumed that it will have little impact on this SA Objective. New development will be required to include high levels of energy efficiency and some onsite renewable energy development and therefore a beneficial impact is recorded.</p> <p>Redevelopment could utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p><b>Enhancement:</b> In line with the proposed policy approach for energy and low carbon energy generation, standards could be set for the development with regards to energy efficiency and renewable energy generation.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.</p>	<p>This option includes more growth than Option 1 but not to the scale as that proposed within options 3 and 4. New development will be required to include high levels of energy efficiency and some onsite renewable energy development and therefore a beneficial impact is recorded. Redevelopment could utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p><b>Enhancement:</b> In line with the proposed policy approach for energy and low carbon energy generation, standards could be set for the development with regards to energy efficiency and renewable energy generation.</p> <p>A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.</p>	<p>It is assumed for Options 3 and 4 that they will have the potential to significantly improve energy efficiency of operations of the site and significant renewable energy generation will be incorporated into the development. The proposed policy approach to renewable and low carbon energy generation (1a) would particularly support this spatial option as its development would include consideration of the types of energy generation that could be suitable for the area and whether an area based approach could be used.</p> <p>Redevelopment of this scale will utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p><b>Enhancement:</b> In line with the proposed policy approach for energy and low carbon energy generation, standards should be set for the development with regards to energy efficiency and renewable energy generation. The redevelopment of the AAP area presents an opportunity to implement a site-wide energy strategy, maximising opportunities for synergies between the differing uses proposed and identifying which energy generation technologies might be suitable.</p>	<p>It is assumed for Options 3 and 4 that they will have the potential to significantly improve energy efficiency of operations of the site and significant renewable energy generation will be incorporated into the development. The proposed policy approach to renewable and low carbon energy generation (1a) would particularly support this spatial option as its development would include consideration of the types of energy generation that could be suitable for the area and whether an area based approach could be used.</p> <p>Redevelopment of this scale will utilise a significant amount of resources and will generate a considerable amount of spoil and waste building material. Any existing resources available on the site, such as materials from redundant buildings, should be reused as far as practicable.</p> <p><b>Enhancement:</b> In line with the proposed policy approach for energy and low carbon energy generation, standards should be set for the development with regards to energy efficiency and renewable energy generation. The redevelopment of the AAP area presents an opportunity to implement a site-wide energy strategy, maximising opportunities for synergies between the differing uses proposed and identifying which energy generation technologies might be suitable. A Construction Environmental</p>

Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
						A Construction Environmental Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.	Management Plan (CEMP) including a Site Waste Management Plan (incorporating a waste audit and strategy, consistent with the adopted Cambridgeshire and Peterborough Minerals and Waste Plan) will be required to support planning applications.
8. Reduce vulnerability to future climate change effects.	<ul style="list-style-type: none"> <li>Will it protect and enhance existing natural flood risk management infrastructure?</li> <li>Will it ensure that suitable sustainable drainage measures are incorporated into developments in order to manage surface water runoff?</li> <li>Will it provide green and blue infrastructure which will help reduce climate change impacts locally?</li> <li>Does it include measures to adapt to climate change in ways that do not increase greenhouse gas emissions including giving consideration to</li> </ul>	<p>AAP area is in flood zone 1 (low risk), however, there is a level of pluvial flood risk. The risk is confined to small local areas that can be mitigated against through good design and careful masterplanning. Areas of open space may be required to manage this risk. Contamination and high groundwater will also determine surface water management solutions<sup>5</sup>.</p> <p>Other climate risks include increased risks of overheating, subsidence and heave and periods of drought.</p> <p>Bramblefields Local Nature Reserve has ponds which are fed by ground water and the levels rise during periods of heavy rainfall indicating that the groundwater level is reactive to rainfall events.<sup>6</sup></p>	~	?	?	?	?
			<p>There is some risk of pluvial flood risk but the baseline data does not identify any existing issues.</p>	<p>The option has the potential to reduce vulnerability to future climate change through the use of SUDS, green infrastructure and design and layout of the development. However, policies are yet to be developed in order to ensure that these are integrated into the development.</p> <p><b>Mitigation:</b> In line with the proposed policy approach to sustainable design and construction (option B), policies should be included in the AAP which ensure all forms of flood risk are taken into account and SUDS are used to manage surface water. Policies should require specific consideration to adaption to climate change including giving consideration to the layout and massing of new developments.</p>	<p>The option has the potential to reduce vulnerability to future climate change through the use of SUDS, green infrastructure and design and layout of the development. However, policies are yet to be developed in order to ensure that these are integrated into the development.</p> <p><b>Mitigation:</b> In line with the proposed policy approach to sustainable design and construction (option B), policies should be included in the AAP which ensure all forms of flood risk are taken into account and SUDS are used to manage surface water. Policies should require specific consideration to adaption to climate change including giving consideration to the layout and massing of new developments.</p>	<p>The option has the potential to reduce vulnerability to future climate change through the use of SUDS, green infrastructure and design and layout of the development. However, policies are yet to be developed in order to ensure that these are integrated into the development. This option includes significantly more open space which will help to manage surface water.</p> <p><b>Mitigation:</b> In line with the proposed policy approach to sustainable design and construction (option B), policies should be included in the AAP which ensure all forms of flood risk are taken into account and SUDS are used to manage surface water. Policies should require specific consideration to adaption to climate change including giving consideration to the layout and massing of new developments.</p>	<p>The option has the potential to reduce vulnerability to future climate change through the use of SUDS, green infrastructure and design and layout of the development. However, policies are yet to be developed in order to ensure that these are integrated into the development. This option includes significantly more open space which will help to manage surface water.</p> <p><b>Mitigation:</b> In line with the proposed policy approach to sustainable design and construction (option B), policies should be included in the AAP which ensure all forms of flood risk are taken into account and SUDS are used to manage surface water. Policies should require specific consideration to adaption to climate change including giving consideration to the layout and massing of new developments.</p>

<sup>5</sup> Cambridge Northern Fringe East Area Flood Risk Assessment DRAFT (May 2014)

<sup>6</sup> Cambridge Northern Fringe East Area Flood Risk Assessment DRAFT (May 2014), 14.

Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
	the layout and massing of new developments?						
<b>Human health and well being</b>							
<b>9. Maintain and enhance human health and wellbeing, and reduce inequalities</b>	<ul style="list-style-type: none"> <li>Will it promote good health and encourage healthy lifestyles?</li> <li>Will it help address levels of deprivation in north and east Cambridge?</li> <li>Will it reduce inequalities in health in the north and east of Cambridge?</li> </ul>	<p>The Index of Multiple Deprivation reveals that East Chesterton is the 13th most deprived ward in the county. The area is also the 2<sup>nd</sup> worst ranked in Cambridge and South Cambridgeshire in terms of the Income Deprivation Affecting Children Index.<sup>7</sup></p> <p>In 2008-1010 mortality rates per 100,000 population (&lt;75 years) in East Chesterton and Milton were 369.3 and 208.4 respectively.<sup>8</sup></p> <p>Mortality rates in Cambridgeshire as a whole for the same period were 272.1 per 100,000 population (&lt;75 years).</p>	+	+	++	++	++
			<p>This option includes the redevelopment of the southern part of the site into a new transport interchange. The interchange will provide a sustainable transport route into Cambridge. The AAP area already has connections to the existing high quality off-road cycle network alongside the Guided Busway and the new Chisholm Trail. Permeability across the site is currently severely constrained and therefore does not promote sustainable transport</p>	<p>This option will provide new employment opportunities which should help to address some issues related to deprivation. This option does not significantly improve walking and cycling access across the whole site but will improve links with the interchange and the layout of the area within the south of the AAP.</p> <p><b>Enhancement:</b> Developers should be encouraged to register with The Considerate Constructors Scheme which includes guidelines for respecting the community by considering</p>	<p>This option will provide a significant amount of new employment opportunities and some small scale housing and community facilities in a new Local Centre which should help to address some issues related to deprivation. This option includes better movement across the area for cyclists and pedestrians compared with option 1. It includes a green infrastructure network and new open space, thereby encouraging healthy lifestyles for residents and workers. It also will improve links with the interchange and the layout of the area within the south of the AAP.</p>	<p>This option will provide a significant amount of new employment opportunities as well as new housing and community facilities. It will allow for a comprehensive network of walking and cycling access across the site integrated with a green infrastructure network and significant open space, thereby encouraging healthy lifestyles for residents and workers. It also will improve links with the interchange and the layout of the area within the south of the AAP.</p> <p>Contaminated land assessment and remediation will be put in place in order to ensure acceptable conditions</p>	<p>This option will provide the largest amount of new employment opportunities as well as new housing. Compared with the other options, it will allow for a more comprehensive network of walking and cycling access across the site integrated with a green infrastructure network and significant open space thereby encouraging healthy lifestyles for residents and workers. It also will improve links with the interchange and the layout of the area within the south of the AAP.</p> <p>Contaminated land assessment and remediation will be put in place in order to ensure acceptable conditions</p>

<sup>7</sup> Children and young people living in deprivation, the disaffected and those at risk of disaffection. A review of evidence for the South Cambridgeshire and Cambridge Children and Young People's area Partnership.

<sup>8</sup> Cambridge Atlas Ward Profiles, Office for National Statistics mortality data 2008-2010.

Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
			(walking/cycling) within the AAP area.	the impact on their neighbours, and for protecting and enhancing the environment.	See SA Objective 2 for information about potential noise and air quality impacts. <b>Enhancement:</b> Developers should be encouraged to register with The Considerate Constructors Scheme which includes guidelines for respecting the community by considering the impact on their neighbours, and for protecting and enhancing the environment.	for residential and other types of development. See SA Objective 2 for information about potential noise and air quality impacts. <b>Enhancement:</b> Developers should be encouraged to register with The Considerate Constructors Scheme which includes guidelines for respecting the community by considering the impact on their neighbours, and for protecting and enhancing the environment.	for residential and other types of development. See SA Objective 2 for information about potential noise and air quality impacts. <b>Enhancement:</b> Developers should be encouraged to register with The Considerate Constructors Scheme which includes guidelines for respecting the community by considering the impact on their neighbours, and for protecting and enhancing the environment.
<b>10. Improve the quantity and quality of publically accessible open space.</b>	<ul style="list-style-type: none"> <li>Will it increase the quantity and quality of publically accessible open space?</li> <li>Will it protect and enhance community, leisure and open space provision, particularly in East Chesterton ward?</li> <li>Will it maintain and enhance open spaces and green space within the urban area and the Green Belt setting?</li> </ul>	<p>The AAP contains areas of designated Open Space including a Local Nature Reserve and allotments, both located in the south of the area.</p> <p>Milton Park lies to the north of the site on the other side of the A14.</p> <p>The northern fringe of Cambridge includes areas with a deficiency in Accessible Natural Green Space (ANGS) at the 20ha plus standard. At the 2ha plus standard there are significant deficiencies across the whole area<sup>9</sup>.</p>	-	+	++	++	++
			<p>This option will not improve the quantity and quality of open space in this area. This option will not help to address identified deficiencies in open space.</p>	<p>This option provides some limited additional open space (+1.2 hectares), particularly along the Cowley Road / main boulevard linking to the new station.</p> <p>For all options, green space is included along the northern and eastern boundaries which should help to reduce adverse impacts on the Green Belt.</p>	<p>This option provides significantly more informal open space than option 1 (+4.3 hectares compared with existing provision) and it will meet open space standards required by the addition of new residential development (440 dwellings).</p> <p>For all options, green space is included along the northern and eastern boundaries which should help to reduce adverse impacts on the Green Belt.</p>	<p>This option provides significantly more informal open space than option 1 (+5 hectares compared with existing provision) and it will meet open space standards required by the addition of new residential development (630 dwellings).</p> <p>For all options, green space is included along the northern and eastern boundaries which should help to reduce adverse impacts on the Green Belt.</p>	<p>This option provides significantly more informal open space than option 1 (+5 hectares compared with existing provision) and it will meet open space standards required by the addition of new residential development (630 dwellings).</p> <p>For all options, green space is included along the northern and eastern boundaries which should help to reduce adverse impacts on the Green Belt.</p>
			~	~	+	+	+

<sup>9</sup> Green Infrastructure Forum, Cambridge Green Infrastructure Strategy, (2011), 116.

Table A.1 Appraisal of Spatial Redevelopment Options							
SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
<b>11. Ensure everyone has access to decent, appropriate and affordable housing</b>	<ul style="list-style-type: none"> <li>Will it support the provision of a range of housing types to meet identified needs?</li> </ul>	<p>The greatest population increases in Cambridge have been experienced in East Chesterton, Coleridge and Trumpington wards.<sup>10</sup></p> <p>Residential development within the AAP would need to be subject to acceptable environmental conditions due to environmental constraints on the AAP site.</p>	Option does not include provision of new housing.	Option does not include provision of new housing.	Option includes 300 dwellings near the new station and 140 new dwellings at Nuffield Road. More dense development may be more appropriate around the station. Types of housing may be determined to some degree by contaminated present and remediation available.	Option includes 300 dwellings near the new station and 330 new dwellings at Nuffield Road. More dense development may be more appropriate around the station. Types of housing may be determined to some degree by contaminated present and remediation available.	Option includes 300 dwellings near the new station and 330 new dwellings at Nuffield Road. More dense development may be more appropriate around the station. Types of housing may be determined to some degree by contaminated present and remediation available.
<b>Economy and Infrastructure</b>							
<b>12. Redress inequalities related to age, disability, gender, race, faith, location and income</b>	<ul style="list-style-type: none"> <li>Will it improve relations between people from different backgrounds or social groups and contribute to community diversity?</li> <li>Will it ensure equal access for all?</li> </ul>	<p>In South Cambridgeshire 87.3% of the population in 2011 were White British, and a further 5.7% were White Irish and White Other, with 10,453 people identified as being from minority ethnic groups. The largest identified minority ethnic groups were Indian (1.5%), Other Asian (1.0%) and Chinese (0.8%).</p> <p>In terms of Cambridge, 21.5% of people are from ethnic groups other than White British.<sup>11</sup></p>	-  This option does not contribute towards the achievement of this SA Objective and does not help to redress existing inequalities.	+  This option includes up to 13,600 new jobs. <b>Enhancement:</b> The AAP could include policies to ensure that employment opportunities are available for local people, in order to support this SA Objective.	<b>++</b>  This option includes new housing development, a new local centre and provides up to 15,100 new jobs which should contribute to the achievement of this SA Objective and result in significant beneficial impacts. <b>Enhancement:</b> The AAP could include policies to ensure that employment opportunities are available for local people, in order to support this SA Objective.	<b>++</b>  This option includes new housing development, a new local centre and provides significant employment opportunities (up to 25,800 new jobs) compared with options 1 and 2. <b>Enhancement:</b> The AAP could include policies to ensure that employment opportunities are available for local people, in order to support this SA Objective.	<b>++</b>  This option includes new housing development, a new local centre and provides the greatest employment opportunities (up to 27,600 new jobs) compared with the other options. <b>Enhancement:</b> The AAP could include policies to ensure that employment opportunities are available for local people, in order to support this SA Objective.
<b>13. Improve the quality, range</b>	<ul style="list-style-type: none"> <li>Will it provide accessibility to</li> </ul>	There are no local or district centres currently	-	+ / ?	<b>++ / ?</b>	<b>++ / ?</b>	<b>++ / ?</b>

<sup>10</sup> Cambridge City Council Annual Monitoring Report 2011

<sup>11</sup> Source – 2011 Census.



SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
<b>and accessibility of services and facilities (e.g. health, transport, education, training, leisure opportunities)</b>	<p>and improve quality of key local services and facilities, including health, education and leisure (shops, post offices, pubs etc?)</p> <ul style="list-style-type: none"> <li>• Will it improve access to jobs and training for all?</li> <li>• Will it encourage and enable engagement in community activities?</li> </ul>	<p>within the AAP area. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings Hedges and East Chesterton wards.</p> <p>East Chesterton ward is within the 40% most deprived areas in England, whereas the part of the AAP within South Cambridgeshire is identified as being within the 60%.<sup>12</sup></p> <p>The Sidings area is safeguarded for a railway station and interchange facility.</p>	<p>This option does not contribute towards the achievement of this SA Objective and does not help to redress existing deficiencies and inequality.</p>	<p>This option includes up to 13,600 new jobs.</p> <p>This option includes additional small shops or coffee shops along the station approach. These facilities are not as likely to attract custom from the local people as the local centre proposed in the other options but this is unclear until it is known what is likely to be proposed in each option.</p>	<p>This option includes a new local centre and provides up to 15,100 new jobs which should contribute to the achievement of this SA Objective and result in significant beneficial impacts.</p> <p>It is unclear what the new local centre could provide. However, employment areas require complementary social and support facilities if they are to achieve the full potential of the area and this has been shown in several local studies.</p>	<p>This option includes new housing development, a new local centre and provides significant employment opportunities (up to 25,800 new jobs) compared with options 1 and 2.</p> <p>It is unclear what the new local centre could provide. However, employment areas require complementary social and support facilities if they are to achieve the full potential of the area and this has been shown in several local studies.</p>	<p>This option includes new housing development, a new local centre and provides the greatest employment opportunities (up to 27,600 new jobs) compared with the other options.</p> <p>It is unclear what the new local centre could provide. However, employment areas require complementary social and support facilities if they are to achieve the full potential of the area and this has been shown in several local studies.</p>
<b>14. Improve the efficiency, competitiveness, vitality and adaptability of the local economy</b>	<ul style="list-style-type: none"> <li>• Will it maintain and enhance competitiveness, and capitalise on Cambridge's position as one of the UK's most competitive cities?</li> <li>• Will it provide high-quality employment land in appropriate, accessible locations to meet the needs of businesses, and the workforce?</li> <li>• Will it protect the shopping hierarchy,</li> </ul>	<p>The Local Plan policies identify the area for an employment led development.</p> <p>There is likely to be a shortage of B1a<sup>13</sup>, space, focused on the city centre and the northern fringe. Increased provision elsewhere in the city is not likely to meet demand which should be met where businesses want to locate<sup>14</sup>.</p>	<p>~</p> <p>This option both supports and works against this SA Objective, in that it does not reduce the amount of industrial uses but does not necessarily provide new office development not does it especially support cluster businesses or support competitiveness.</p> <p>There is no other local centre within the immediate vicinity. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings</p>	<p>+/-</p> <p>This option will result in the provision of new office and R&amp;D space (+162,000m<sup>2</sup> compared to existing). It will also result in a net increase in industry/storage (+0.2hectares compared with existing). The provision of these uses will help to maintain and enhance the economy of Cambridge and improve competitiveness. It will provide high quality employment in an accessible location.</p> <p>However, the options require existing industrial and storage businesses to</p>	<p>+ / -</p> <p>This option will include new office and R&amp;D space (+180,000m<sup>2</sup> compared to existing) which will contribute to the achievement of this SA Objective and result in significant beneficial impacts. The provision of these uses will help to maintain and enhance the economy of Cambridge and improve competitiveness. It will provide high quality employment in an accessible location. This option will, however, result in a loss of industrial/storage uses compared with the baseline ('Do Nothing/Committed Development' option) which</p>	<p>++ / -</p> <p>This option will include significant amounts of new offices and R&amp;D space (+307,000m<sup>2</sup> compared to existing) which will contribute to the achievement of this SA Objective and result in significant beneficial impacts. The provision of these uses will help to maintain and enhance the economy of Cambridge and improve competitiveness. It will provide high quality employment in an accessible location. It will provide additional industrial/storage uses (+0.5</p>	<p>++ / -</p> <p>This option will include significant amounts of new offices and R&amp;D space (+328,000m<sup>2</sup> compared to existing) which will contribute to the achievement of this SA Objective and result in significant beneficial impacts. The provision of these uses will help to maintain and enhance the economy of Cambridge and improve competitiveness. It will provide high quality employment in an accessible location. It will provide additional industrial/storage uses (+5 hectares compared with existing).</p>

<sup>12</sup> Index of Multiple Deprivation (IMD): Education, Skills and Training domain

<sup>13</sup> An office other than a use within Class A2 (financial and professional services)

<sup>14</sup> Employment Land Review 2012

SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
	<p>supporting the vitality and viability of Cambridge, district and local centres?</p> <ul style="list-style-type: none"> <li>• Will it provide appropriate office space?</li> <li>• Will it minimise the loss of industrial floorspace?</li> </ul>		<p>Hedges and East Chesterton wards. It is not considered likely that the new facilities would compete with retail areas elsewhere within Cambridge.</p>	<p>relocate which will have a potential impact on their efficiency, vitality and economic performance. This will have a negative impact on those businesses in the short term.</p> <p>There is no other local centre within the immediate vicinity. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings Hedges and East Chesterton wards. It is not considered likely that the new local centre would compete with retail areas elsewhere within Cambridge.</p>	<p>relates to one of the decision-aiding questions.</p> <p>However, the options require existing industrial and storage businesses to relocate which will have a potential impact on their efficiency, vitality and economic performance. This will have a negative impact on those businesses in the short term.</p> <p>There is no other local centre within the immediate vicinity. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings Hedges and East Chesterton wards. It is not considered likely that the new local centre would compete with retail areas elsewhere within Cambridge.</p>	<p>hectares compared with existing).</p> <p>However, the options require existing industrial and storage businesses to relocate which will have a potential impact on their efficiency, vitality and economic performance. This will have a negative impact on those businesses in the short term.</p> <p>There is no other local centre within the immediate vicinity. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings Hedges and East Chesterton wards. It is not considered likely that the new local centre would compete with retail areas elsewhere within Cambridge.</p>	<p>However, the options require existing industrial and storage businesses to relocate which will have a potential impact on their efficiency, vitality and economic performance. This will have a negative impact on those businesses in the short term.</p> <p>There is no other local centre within the immediate vicinity. The nearest local or district centre is on the A1309 towards the city centre on the boundary between the Kings Hedges and East Chesterton wards. It is not considered likely that the new local centre would compete with retail areas elsewhere within Cambridge.</p>
<b>15. Support appropriate investment in people, places, communications and other infrastructure</b>	<ul style="list-style-type: none"> <li>• Will it improve the level of investment in key community services and infrastructure, including communications infrastructure and broadband?</li> <li>• Will it improve access to education and training for all, and support provision of skilled employees to the economy?</li> </ul>	<p>The AAP is within the Connecting Cambridgeshire programme. Roll out of superfast broadband in East Chesterton between June 2014 and March 2015 – cabinets have now been upgraded in this area.<sup>15</sup></p> <p>Cambridge Science Park Exchange has live superfast fibre broadband. There are surrounding cabinets capable of superfast broadband which are not yet live including one at St</p>	<p>~</p> <p>This option does not support significant investment into this part of Cambridge and does not support the achievement of this SA Objective.</p> <p>Please see above for comments in relation to the provision of new local facilities.</p>	<p>+</p> <p>The types of infrastructure that the AAP may be able to include/support are communications/IT, transport, public realm/open space, and a local centre. This option proposes low growth in the AAP area but will support existing successful businesses and regenerate vacant sites within the area. It will result in up to 13,600 new jobs.</p> <p>Please see above for comments in relation to the</p>	<p>++</p> <p>The types of infrastructure that the AAP may be able to include/support are communications/IT, transport, public realm/open space, and a local centre. This option will involve more significant investment in the AAP area than option 1, including a Local Centre which should provide facilities for the wider area. It will result in up to 15,100 new jobs.</p> <p>Please see above for comments in relation to the</p>	<p>++</p> <p>The types of infrastructure that the AAP may be able to include/support are communications/IT, transport, public realm/open space, and a local centre. This option will involve more significant investment in the AAP area than options 1 and 2, including a Local Centre which should provide facilities for the wider area. It will result in up to 25,800 new jobs.</p> <p>Please see above for comments in relation to the</p>	<p>++</p> <p>The types of infrastructure that the AAP may be able to include/support are communications/IT, transport, public realm/open space, and a local centre. This option will involve more significant investment in the AAP area than options 1 and 2, including a Local Centre which should provide facilities for the wider area. It will result in up to 27,600 new jobs.</p> <p>Please see above for comments in relation to the</p>

<sup>15</sup> Connecting Cambridgeshire, <http://www.connectingcambridgeshire.co.uk/parish/Cambridge/>

SA Objective	Proposed Sub-Objective / Decision-aiding questions	Baseline data	Do Nothing	Option 1	Option 2	Option 3	Option 4
		John Innovation Centre, Cowley Road, Cambs. <sup>16</sup>		provision of a new local centre. <b>Enhancement:</b> The AAP could include policies to ensure that training and employment opportunities are available for local people, in order to support this SA Objective.	provision of a new local centre. <b>Enhancement:</b> The AAP could include policies to ensure that training and employment opportunities are available for local people, in order to support this SA Objective.	provision of a new local centre. <b>Enhancement:</b> The AAP could include policies to ensure that training and employment opportunities are available for local people, in order to support this SA Objective.	provision of a new local centre. <b>Enhancement:</b> The AAP could include policies to ensure that training and employment opportunities are available for local people, in order to support this SA Objective.
<b>16. Reduce the need to travel and promote more sustainable transport choices.</b>	<ul style="list-style-type: none"> <li>Will it enable shorter journeys, improve modal choice and integration of transport modes to encourage or facilitate the use of modes such as walking, cycling and public transport?</li> <li>Will it encourage cycling for journeys over one mile?</li> <li>Will it discourage and reduce the use of the private car and ensure greater access to frequent public transport?</li> <li>Will it support movement of freight by means other than road?</li> <li>Will it promote infrastructure for</li> </ul>	Rail safeguarding area covering the Chesterton sidings. Public transport opportunities in the AAP include access to the Guided Busway extension and rail via a new railway station. The AAP will need to limit traffic within the local transport system to 2011 levels <sup>17</sup> .	-	?	?	?	?
		<p>The proposed Chisholm cycle way would run through the southern end of the site.</p> <p>Given the location and the transport links planned for the area, the site has the potential to achieve the 24% target for employed city residents who drive to work needed across the city to keep traffic levels stable, and may be able to reduce this figure further. New development will bring further demand for parking provision and this</p>	<p>The committed development within the AAP boundary includes a new railway station and an extension of the Cambridgeshire Guided Busway to form a new transport interchange. The interchange proposals include parking for 450 cars and around 1000 bicycles.</p> <p>This option may not involve the intensification of land uses and therefore may not optimise opportunities for intensive land uses around the new transport interchange.</p> <p>The extension of the Cambridge Guided Busway into the new railway station will create links to the north and west of the city. CNFE can be linked</p>	<p>Information is not available on potential traffic impacts relating to the redevelopment as transport modelling is not completed and therefore the appraisal of this option cannot be completed at this stage.</p> <p>This option does not improve pedestrian and cycle access through Cambridge Business Park or across to the Science park. Traffic impacts on Milton Road and existing junctions need to be addressed.</p> <p>However, this option will provide some high quality employment in an accessible location.</p> <p><b>Mitigation/enhancements:</b> Transport modelling is required in order to understand potential impacts on the transport network associated with the options.</p>	<p>Information is not available on potential traffic impacts relating to the redevelopment as transport modelling is not completed and therefore the appraisal of this option cannot be completed at this stage.</p> <p>This option includes a dedicated HGV route.</p> <p>This option includes better movement across the area for cyclists and pedestrians compared with Option 1.</p> <p>There could be potential impacts on Milton Road and existing junctions due to the amount of development proposed.</p> <p>However, this option will provide high quality employment in an accessible location.</p> <p><b>Mitigation/enhancements:</b> Transport modelling is required in order to understand potential impacts</p>	<p>Information is not available on potential traffic impacts as modelling is not completed and therefore the appraisal of this option cannot be completed at this stage.</p> <p>There could be potential impacts on Milton Road and existing junctions due to the larger amount of development proposed compared with Options 1 and 2. The AAP will need to limit traffic within the local transport system to 2011 levels<sup>18</sup> and this could be very challenging, given the level of redevelopment this option proposes.</p> <p>A new road parallel to Cowley Road (north-south route) will remove industrial traffic from the road. However, this option will provide high quality employment in an accessible location.</p> <p><b>Mitigation/enhancements:</b></p>	<p>Information is not available on potential traffic impacts as modelling is not completed and therefore the appraisal of this option cannot be completed at this stage.</p> <p>There could be potential impacts on Milton Road and existing junctions due to the larger amount of development proposed compared with Options 1 and 2. The AAP will need to limit traffic within the local transport system to 2011 levels<sup>19</sup> and this could be very challenging, given the level of redevelopment this option proposes.</p> <p>However, this option will provide high quality employment in an accessible location. This option creates a more accessible and better connected layout than other options which should better support walking and cycling across the site.</p> <p><b>Mitigation/enhancements:</b></p>

<sup>16</sup> Connecting Cambridgeshire, <http://www.connectingcambridgeshire.co.uk/parish/Cambridge/>

<sup>17</sup> Cambridgeshire County Council, Cambridgeshire Local Transport Plan 2011-2026 (CCC, 2011).

<sup>18</sup> Cambridgeshire County Council, Cambridgeshire Local Transport Plan 2011-2026 (CCC, 2011).

<sup>19</sup> Cambridgeshire County Council, Cambridgeshire Local Transport Plan 2011-2026 (CCC, 2011).

<b>Table A.1 Appraisal of Spatial Redevelopment Options</b>							
<b>SA Objective</b>	<b>Proposed Sub-Objective / Decision-aiding questions</b>	<b>Baseline data</b>	<b>Do Nothing</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>	<b>Option 4</b>
	zero emissions vehicles? • Will it make the transport network safer for all users, both motorised and non-motorised?	will have a bearing on development values and viability.	with areas to the east and south-east of the city.	Policies in the AAP should require infrastructure for zero emissions vehicles and road/travel safety within the AAP.  Frequency of public transport services will require consideration to ensure that they would meet the needs of the redeveloped area.	on the transport network associated with the options. Policies in the AAP should require infrastructure for zero emissions vehicles and road/travel safety within the AAP.  Frequency of public transport services will require consideration to ensure that they would meet the needs of the redeveloped area.	Transport modelling is required in order to understand potential impacts on the transport network associated with the options. Policies in the AAP should require infrastructure for zero emissions vehicles and road/travel safety within the AAP.  Frequency of public transport services will require consideration to ensure that they would meet the needs of the redeveloped area.	Transport modelling is required in order to understand potential impacts on the transport network associated with the options. Policies in the AAP should require infrastructure for zero emissions vehicles and road/travel safety within the AAP.  Frequency of public transport services will require consideration to ensure that they would meet the needs of the redeveloped area.