
**CENTRAL BEDFORDSHIRE COUNCIL
LOCAL DEVELOPMENT FRAMEWORK
CENTRAL BEDFORDSHIRE (NORTH)**

**SITE ALLOCATIONS:
SUBMISSION CONSULTATION DOCUMENT**

**SUSTAINABILITY APPRAISAL (SA)/
STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)**

Sustainability Appraisal Report

December 2009

enfusion



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SUSTAINABILITY APPRAISAL / STRATEGIC ENVIRONMENTAL
ASSESSMENT**

Sustainability Appraisal Report

for and on behalf of Enfusion Ltd

<i>date:</i>	<i>December 2009</i>	
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SITE ALLOCATIONS:
SUBMISSION CONSULTATION DOCUMENT
SUSTAINABILITY APPRAISAL REPORT**

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1.0 NON TECHNICAL SUMMARY

This Sustainability Appraisal (SA) report

- 1.1 This Report documents the processes of Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) for the Central Bedfordshire (North) Site Allocations Submission Development Plan Document (DPD) as required by planning legislation and Government guidance. Council is required to allocate sites to create a further 5,000 homes in the northern (former Mid Bedfordshire) part of Central Bedfordshire by 2026. The Site Allocations document determines where those sites will be located.
- 1.2 SA assists in promoting more sustainable development through an ongoing dialogue and assessment during the preparation of development planning documents. SEA considers the potential impacts of planning proposals on the environment and is a requirement of European legislation. In England, SEA is incorporated into the SA process and consideration of socio-economic issues is dealt with to the same level of detail as environmental. The Council commissioned consultants Enfusion to progress the SA work in August 2005.

Sustainability issues, problems and opportunities

- 1.3 During Autumn 2005 a sustainability scoping process was carried out to help ensure that the SA covered the key sustainability issues that are relevant to the development planning system in the former Mid Bedfordshire area. Relevant plans and programmes were reviewed to develop a wider understanding of the issues and priorities for the area, together with a description of the current and predicted social, environmental and economic characteristics.
- 1.4 From these studies and public consultation, the key sustainability problems and issues were identified as population growth; the area has become a popular place to live with people working outside the District, which has led to high levels of out-commuting. House prices within the District have risen considerably exacerbating the previous issue, since those people who can afford to buy houses within Mid Bedfordshire are often those who work outside the District. Levels of car ownership and usage in the District are very high, which causes problems for sustainability associated with emissions, and difficulties in providing viable and convenient public transport.
- 1.5 The District contains many valued landscapes, woodlands, habitats and species, as well as a diversity of historic assets. Water and waste are also key sustainability issues in the area. In addition the studies identified a need to retain the special character of the area by providing more local homes and jobs and reducing out commuting.

SA Framework & consultation

- 1.6 A Sustainability Appraisal Framework was compiled and included objectives that aim to resolve the issues and problems identified; the framework is used to test the draft Development Plan Documents as they are being prepared. An SA Scoping Report was sent to a wide range of organisations and also made available on the Council's website (February - April 2006). Comments were invited and received from a number of these organisations; this consultation helped improve the Sustainability Appraisal Framework. The Framework was further adapted in 2009 to tailor it to the Appraisal of the Site Allocations DPD.

Appraising the DPD alternatives

- 1.7 In late 2008- early 2009, Enfusion worked with Council to develop a site selection method that would enable Council to select the most suitable sites for development in the District. This included a joint 2 day workshop with Enfusion and Council Officers to test the emerging method. The criteria were further refined by Council throughout 2009.
- 1.8 As required by the SEA Directive and guidance, the SA considered the strategic alternatives available to Council in the progression of its Site Allocations Document and considered that the 2 alternatives available relate to the overarching spatial location for development; and the location of sites, as determined by the method used by Council (and developed jointly with Enfusion) to appraise the sites.
- 1.9 The overarching spatial location for development was considered in the SA of the Core Strategy and Development Management Policies DPD, and found to be sound from a sustainability perspective. The method used by Council to appraise the sites was subject to Sustainability Appraisal in 2009, and was also found to be positive for sustainability.

Appraising the Site Allocations (North Area) DPD

- 1.10 Guidance on SA/SEA requires that the plan objectives are subject to SA. In this instance further SA was not required, as the Site Allocations DPD is an expression of the objectives in the Core Strategy, which have already been subject to Sustainability Appraisal.
- 1.11 Using the Site Selection method developed by Council and Enfusion, the 443 sites were put through 3 stages of assessment. The sites that successfully passed through Stage 2 were then subject to separate Sustainability Appraisal by Enfusion. The larger, strategic sites (proposing above 300 dwellings or 3 hectares of employment land) were subject to individual Sustainability Appraisals. The effects from the smaller sites were considered through a cumulative effects analysis undertaken for each settlement within the District.

- 1.12 This process confirmed the earlier SA findings of the alternatives; through ensuring a robust and sustainable site selection method, the sites emerging successfully from the selection process have performed well against the majority of the sustainability objectives.

SA Findings:

- 1.13 The SA found that the larger strategic sites were all suitable from a sustainability perspective, although due to their size, traffic congestion and air pollution were likely to occur. However for these larger sites, mitigations (in the form of green travel plans, additional transport services) are more likely to be feasible, and the SA has made recommendations to ensure such measures are taken into account. Flooding was identified as a potential problem for some sites; however this could be mitigated through appropriate planning, and avoidance of the most flood-prone portions of individual sites.
- 1.14 The SA undertaken for each settlement determined similar issues relating to increased road-based transport, and recommendations were made throughout the SA to maximise use of public transport, walking and cycling.
- 1.15 Positive effects were also identified for individual settlements, in particular, the provision of affordable housing and a range of housing types and tenures. New development is also likely to provide additional facilities and services with benefits to existing communities, although it will also increase demand on existing facilities and services. The SA has included recommendations to ensure benefits are enhanced and adverse effects on communities are mitigated.
- 1.16 The combined, or cumulative effect of the development of all of the proposed sites in the District was considered and the effects are summarised as:

Key relevant SA Objective:	Key Positive effects identified:
Building Communities	Progression of the building communities SA objective through meeting housing need with the provision of a range of mixed allocations at settlements across the plan area
Economy and Employment	Significant positive, long term effects for the economy and employment through improved employment provision in existing settlements and new employment provision
Infrastructure/ Biodiversity	The incorporation of multifunctional green infrastructure has the potential to support objectives for infrastructure and enhance biodiversity interests whilst indirectly providing support for sustainable community objectives.
Key relevant SA Objective:	Key Negative effects identified:
Transport	Potential negative effects (e.g. noise, congestion, loss

	of tranquillity) arising from the overall predicted growth in road based traffic in areas where public transport/ infrastructure is poor
Climate Change/ Pollution	Increases in the area's contribution to greenhouse gas production is likely given the development proposals and will arise not only from transportation but also the embodied energy inherent in construction (housing & employment

- 1.17 Throughout the process, recommendations have been made for the mitigation of the negative effects identified.

Monitoring the effects of the DPD

- 1.18 Local planning authorities are required to produce Annual Monitoring Reports including indicators and targets against which the progress of the Local Development Framework can be measured. There is also a requirement to monitor the predictions made in the SA and Government advises Councils to prepare a Monitoring Strategy that incorporates the needs of the LDF and the SA. Mid Beds Council is preparing a monitoring strategy that incorporates recommendations from the SA.

Statement on the difference the SA/SEA process has made

- 1.19 The Site Allocations (North Area) DPD has been subject to initial and detailed SA/SEA throughout its development. The Sustainability Appraisal and SA Framework has directly informed the Council's site selection method, and has hence assisted in ensuring that the Council's housing allocations will be developed on the most suitable and sustainable sites in the District.
- 1.20 The process has also helped to identify any issues that may arise for individual settlements, through the undertaking of cumulative assessments for individual settlements in the district. Additionally, any strategically significant effects arising from the development of larger sites have been identified through the individual appraisal of these sites. The SA has recommended mitigation and enhancement measures that should be considered in the future planning and development of all of the sites- in particular relating to transport. Alongside recommendations that were made during consultation on the DPD, these SA recommendations have been taken on board by Council in the development of specific policies for each of the sites proposed in the DPD.

Next steps and how to comment on this SA report

- 1.21 This SA report accompanies the Site Allocations (North Area) DPD Report at independent examination and forms part of the evidence base. If recommendations or changes are suggested as a result of the examination then it may be necessary to amend the SA report prior to adoption.

- 1.22 If you would like any further information or if you have any comments on this SA/SEA, Council needs to receive them by 5pm 8th March, 2010. Comments may be sent to the LDF team by post or email.

Post: LDF (North Area) Team, Central Beds District Council, Priory House
Monks Walk, Chicksands, SHEFFORD, Beds SG17 5TQ

Email: ldf@centralbedfordshire.gov.uk

2.0 INTRODUCTION

Purpose of the SA and the SA Report

- 2.1 The purpose of Sustainability Appraisal (SA) is to **promote sustainable development through the integration of environmental, social and economic considerations in the preparation of Local Development Documents (LDDs)**. This requirement is set out in Section 39 (2) of the Planning and Compulsory Purchase Act, 2004 and Planning Policy Statement 12: Local Development Frameworks, 2004. Local Development Documents must also be subject to Strategic Environmental Assessment¹² (SEA) and Government advises³ that an integrated approach is adopted so that the SA process incorporates the SEA requirements.
- 2.2 This is the SA Report that documents the Sustainability Appraisal/Strategic Environmental Assessment processes for the Central Bedfordshire Council (North) Site Allocations Document. The Sustainability Appraisal Framework discussed in Section 4 of this SA Report indicates the relationship between the SA and the SEA; compliance with the SEA Regulations is signposted below in this section and detailed in Appendix I. This SA Report is being published for consultation with the Site Allocations Submission Consultation Document.

The Local Development Framework

- 2.3 The Local Development Framework for the former Mid Bedfordshire Area comprises the following Local Development Documents:
- Core Strategy & Development Management Policies DPD
 - Site Allocations DPD
 - Gypsy & Traveller DPD
 - Planning Obligations SPD

Core Strategy & Development Management Policies

- 2.4 The Core Strategy is the overarching strategic document of the Local Development Framework for the Central Bedfordshire Council (North) , and sets out the key elements of the planning framework for the District; it has been subject to detailed SA; an Examination in Public and was adopted by Council in November 2009. The SA and the consultation helped to determine the preferred overall spatial strategy, which has set the strategic direction for the Site Allocations document.

¹ EU Directive 2001/42/EC

² Environmental Assessment of Plans and Programmes Regulations 2004

³ Planning Advisory Service (2009) CLG Planning Manual: Sustainability Appraisal

Central Bedfordshire (North) Site Allocations DPD Draft Submission Consultation Document.

- 2.5 The Council is required to allocate sites to create a further 5,000 homes in the northern (former Mid Bedfordshire) part of Central Bedfordshire by 2026. The Site Allocations document determines where those sites will be located. These homes will make up the balance of overall targets to provide 17,950 new homes between 2001 and 2026, about 12,985 of which have already been built or have gained planning permission.
- 2.6 The Site Allocations document has the following key objectives: It sets out the Council's spatial vision, objectives and policies for the provision of housing, employment land and associated infrastructure to meet future development in the Council area over the period 2001 – 2026. This Site Allocations Development Plan Document has identified sites and policies to help deliver the spatial vision, objectives and policies of the Core Strategy and Development Management Policies DPD (CSDM).

Summary Compliance with the SEA Directive & Regulations

- 2.7 The SEA Regulations set out certain requirements for reporting the SEA process, and specify that if an integrated appraisal is undertaken (i.e. SEA is subsumed within the SA process, as for the SA of the LDF), then the sections of the SA Report that meet the requirements set out for reporting the SEA process must be clearly signposted. Consequently the requirements for reporting the SEA process are set out in Appendix I and with the section of the report that progresses each SEA requirement indicated.

3.0 APPRAISAL PROCESS AND METHODS

Scoping the Key Sustainability Issues

- 3.1 Enfusion Ltd was commissioned in August 2005 by the former Mid Beds District Council to progress the SA work. A SA scoping process was undertaken during autumn 2005 to help ensure that the SA covers the key sustainability issues that are relevant to the spatial and development planning system in the Central Bedfordshire (North) area. This included the development of an SA Framework of objectives (presented at the end of Section 4 of this SA Report) to comprise the basis for appraisal. An SA Scoping Report was prepared to summarise the findings of the Scoping process. This was published in December 2005 for consultation with stakeholders and was also available on the Council's website. Responses to this scoping consultation, and how they were taken into account, are reported in the SA Report accompanying the Core Strategy DPD, available at: <http://www.centralbedfordshire.gov.uk/environment-and-planning/planning/ldf/ldf-north-area/north-ldf-core-strategy-dev-mngmnt.aspx>

The site assessment method and consultation on sites

- 3.2 Council has undertaken a number of consultation exercises to provide opportunities for the community and interested parties to be involved in the development of the DPD. An 'Issues and Options' consultation called 'talk to midbeds' took place in April 2008. Respondents were asked to comment on 443 sites that had been put forward as potential development sites. As a result of this process, a further 74 sites were submitted for consideration and a further consultation was held in July-August 2008 to allow people to comment on the further proposed sites.
- 3.3 In late 2008- early 2009, Enfusion worked with Council to develop a site selection method that would enable Council to select the most suitable sites for development in the District. This included a joint 2 day workshop with Enfusion and Council Officers to test the effectiveness of the emerging 3 stage method on selected sites. The method consisted of:

Stage 1: An exclusionary stage, whereby sites were eliminated based on their performance on key criteria (e.g. effects on international/nationally important biological designations; location in high flood risk area).

Stage 2: A settlement -by-settlement assessment, whereby each site was considered in accordance with how well it related to the settlement, and access to services, employment and transport. From this, a shortlist of potentially suitable sites was prepared.

Stage 3: A specialist assessment of sites that have progressed from Stage 2, assessing issues such as protection of the environment,

agricultural land, physical limitations and conflict with neighbouring land uses.

- 3.4 The criteria were further refined by Council throughout 2009. Council staged a further consultation in September 2009 to allow an opportunity for the public to comment on the criteria. The Council then developed a system of 'weighting' to allow progression of sites from Stage 2 to Stage 3. The sites that scored highest for each settlement were shortlisted and progressed to Stage 3 (provided the overall housing figures were within the required housing range for each settlement as set out in the Core Strategy DPD).

SA of plan objectives

- 3.5 The Guidance on SA/SEA requires that the plan objectives are subject to SA. In this instance further SA was not required, as the Site Allocations DPD is an expression of the objectives in the Core Strategy, which have already been subject to Sustainability Appraisal.

Developing and Appraising the Alternatives

- 3.6 As required by the SEA Directive and guidance, the SA has considered the strategic alternatives available to Council in the progression of its Site Allocations Document and considered that the 2 alternatives available relate to:
- The overarching spatial location for development; and
 - The location of sites, as determined by the method used by Council (and developed jointly with Enfusion) to appraise the sites.

These have been considered by Enfusion and the results of the appraisal are discussed in section 5 of this report.

Appraising the Effects of the DPD

- 3.7 Using the Site Selection method developed by Council and Enfusion, the 443 sites were put through 3 stages of assessment (explained further in section 5). The sites that successfully passed through Stage 2 were then subject to Sustainability Appraisal. The larger, strategic sites (proposing above 300 dwellings or 3 hectares of employment land) were subject to separate Sustainability Appraisal. The remaining sites were considered in a Sustainability Appraisal of the cumulative effects of the DPD on each settlement within the District. This is discussed in section 6.
- 3.8 The Cumulative Effect of the development of all of the sites was considered and this is also discussed in Section 6.
- 3.9 Throughout the SA process, commentary has been provided where relevant and possible: positive/negative effects, short/long term effects, indirect/direct effects, cumulative effects, and the reversibility,

scale and likelihood of effects with recommendations for proposed mitigation or enhancement where identified.

Consultation on the SA

- 3.10 As discussed above, Council has undertaken significant consultation on the Site Allocations DPD. As required by SA guidance, an SA scoping process was undertaken with the public and other stakeholders during February to April 2006 for the LDF as a whole. Comments received as a result of this consultation were reviewed and changes made where possible and relevant; responses are summarised and reported in Appendix IV of the Core Strategy and Development Management SA Report.
- 3.11 This Sustainability Appraisal Report is being published alongside the Site Allocations DPD Draft Submission document, in accordance with SEA Regulations and SA Guidance for consultation. It will be published on the Council's website www.centralbedfordshire.gov.uk and sent to statutory consultees and the wider stakeholder group that was consulted on the SA Scoping process.

Uncertainties

- 3.12 Throughout the development of the plan and the Sustainability Appraisal process, data gaps and uncertainties were uncovered. It is not always possible to accurately predict sustainability effects when considering plans at this strategic scale and where development details are not yet known. Impacts on biodiversity and cultural heritage, for example, may depend on more detailed information and studies undertaken at a site-level. These uncertainties have been acknowledged in the appraisal matrices, where applicable.

4.0 SUSTAINABILITY CONTEXT AND BASELINE CHARACTERISTICS

Review of Relevant Plans and Programmes

- 4.1 In order to establish a clear scope for the SA of the LDF it is necessary (and a requirement of SEA) to review and develop an understanding of the wider range of “policies, plans, programmes and sustainability objectives”⁴ that are relevant to the LDF. This includes International, European, National, Regional and local level policies, plans and strategies. Summarising the aspirations of other relevant policies, plans, programmes and sustainability objectives (hereafter referred to as ‘relevant plans’) promotes systematic identification of the ways in which the LDF could help fulfil them.
- 4.2 A revised Plans and Programmes Review was undertaken in 2008 for the LDF. For each relevant plan, requirements and applicable sections for the LDF were distilled from the document, and this is presented at Appendix II of the SA Report for the Core Strategy and Development Management DPD. This document is available at;
<http://www.centralbedfordshire.gov.uk/environment-and-planning/planning/ldf/ldf-north-area/north-ldf-core-strategy-dev-mngmnt.aspx>

Baseline Conditions

- 4.3 Collection of baseline information is required under SEA legislation, and is fundamental to the SA process to provide a background to, and evidence base for, identifying sustainability problems and opportunities in the area, and providing the basis for predicting and monitoring effects of the LDF. To make judgements about how the emerging content of the LDF will progress or hinder sustainable development, it is essential to understand the economic, environmental and social circumstances in the Northern area of Central Bedfordshire today and their likely evolution in the future. The aim is to collect only relevant and sufficient data on the present and future state of the area to allow the potential effects of the LDF to be adequately predicted.
- 4.4 The SA Guidance provided by Government proposes a practical approach to data collection, recognising that information may not yet be available, and that information gaps for future improvements should be reported as well as the need to consider uncertainties in data.
- 4.5 The former Mid Bedfordshire District Council undertook an extensive data collation exercise for the preparation of a State of the Environment Report. This information was used to prepare a summary of baseline information of key relevance for the SA context.

⁴ Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents ODPM, November 2005

- 4.6 The baseline was updated in April 2008, to account for the considerable time elapsed since the original Scoping work was undertaken. In particular, the climate change, health, water and biodiversity sections were updated, and where relevant, new source documents were used to update the information, ensuring a more robust evidence base. The baseline table, including comparators, established targets and trends is presented at Appendix II of the SA Report for the Core Strategy and Development Management DPD. This document is available at;
<http://www.centralbedfordshire.gov.uk/environment-and-planning/planning/ldf/ldf-north-area/north-ldf-core-strategy-dev-mngmnt.aspx>
Some of the key characteristics apparent from the baseline information are summarised in Section 4.

Habitats Regulation Assessment/Appropriate Assessment

- 4.7 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).
- 4.8 Articles 6 (3) and 6 (4) of the Habitats Directive require Appropriate Assessment to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more Natura 2000 sites either individually, or in combination with other plans and projects.⁵ This was transposed into UK law in Part IVA of the Habitats Regulations (The Conservation (Natural Habitats, & c.)(Amendment) (England and Wales) Regulations 2007). These regulations require the application of AA to all land use plans that form part of the Local Development Document suite.
- 4.9 The requirement for AA is first determined by an initial 'screening' stage undertaken as part of the full Habitats Regulations Assessment. This screening process involves identifying any designated (Natura 2000) sites that are either within or near [approx. 15km radius] the boundary of the plan area.
- 4.10 The former Mid Beds District area and wider Bedfordshire do not contain any Natura 2000 sites. However, rivers including the River Great Ouse, which runs to the north of Central Bedfordshire, provide a pathway for potential impacts from development to Natura 2000 sites

⁵ Determining whether an effect is 'significant' is undertaken in relation to the designated interest features and conservation objectives of the Natura 2000 sites. If an impact on any conservation objective is assessed as being adverse then it should be treated as significant. Where information is limited the precautionary principle applies and significant effects should be assumed until evidence exists to the contrary.

downstream. An HRA Screening Assessment was undertaken of the Core Strategy and Development Control DPD. The report concluded that the Mid Beds Core Strategy and DC Policies Document would have no adverse effects on sites of European Nature Conservation, either alone or in-combination with other plans. The Site Allocations DPD conforms to the Core Strategy DPD and is therefore unlikely to result in adverse effects on European sites. A separate HRA Screening Assessment is under preparation and will be sent to the Natural England Four Counties Team for consultation in accordance with the requirements for HRA.

The Sustainability Characteristics of Central Bedfordshire (Northern Area)

- 4.11 It is important to distil the key sustainability issues, problems and objectives relevant to the area from the collated information and consideration of the particular character of the area. These issues are considered to be priorities for consideration through the Sustainability Appraisal, and the SA Framework of sustainability objectives (detailed later in this Section) seeks to attend to them.

Characterisation

- 4.12 The northern area of Central Bedfordshire covers approximately 50,000 hectares and contains a number of towns and villages, separated by extensive areas of open countryside. **Much of the area exhibits a high quality natural environment, which has been extensively shaped by agricultural activity.**
- 4.13 The northern area (formerly Mid Bedfordshire District) has a population of over 121,000, and approximately 52,000 households. The largest settlements are Flitwick (12,933), Biggleswade (11,700), Sandy (10,887), and Ampthill (6,897), all of which have expanded with the building of modern estates. The former Mid Bedfordshire District was considered to be one of the most rapidly growing Districts in England. **It has undergone a 10% increase in population from 1991 to 2001, which is over double the average for England.** With substantial planned housing development, this looks set to continue. The population is forecast to increase to around 130,000 within the next decade.
- 4.14 The economy of the area is strong in comparison with the rest of the UK. Of the 376 local authority areas in England and Wales, the former Mid Beds District has the twelfth highest employment rate – with only 1.2% unemployment. It also enjoys higher than average pay, a broad mix of industry types and a growing number of firms. Historically, the largest sectors have been agriculture and manufacturing. Employment in both agriculture and manufacturing have declined – with 17.3% of the workforce now employed directly in manufacturing, and only 3% employed in agriculture (although it is considered important to retain agricultural as a component of the economic composition of the area).

- 4.15 This decline in manufacturing and agriculture has been offset by an increase in service based activities. The largest single sectors are now Public Administration, Education and Health (27.2%) and Distribution (20.1%). The area has high level of professional and senior employees compared to the East of England Region and the UK. However, many of the Area's residents employed in professional and senior roles commute out of the Area to work.
- 4.16 Tourism is a growing sector that is increasing in its value to the local economy, by embracing the area's environmental and historic assets. Valued at around £100 million per year and employing almost 3000 people, the sector experienced growth of 46% between 1996 and 2000.
- 4.17 According to the Mid Bedfordshire Community Plan (2003), compared with other local authority areas, the former Mid Bedfordshire is considered an affluent District, (ranking 327 out of 354 local authority areas, where a score of 1 is the most deprived and 354 the least). However, problems of deprivation do exist, and are becoming more marked in places as a result of escalating house prices, which put home ownership beyond the means of many residents. With strong north-south transport links and two mainline railway services, the Area lies on the fringe of the London housing market, and this has contributed to the rising house prices.
- 4.18 The good transport links also make the Area susceptible to high levels of out-commuting. The proximity and ease of access by rail and road to areas such as Milton Keynes, Bedford, Cambridge, Stevenage and London means that a substantial number of residents now work outside the Area. This encourages spending outside the Area, and creates congestion. Meanwhile, transport infrastructure and services between communities within the Area is much less well-developed which further encourages out-commuting and high car ownership. Car ownership is very high relative to the Region, and the UK, with almost half of households owning two or more cars. With 70.1% of travel to work by car, there is considerable potential to promote modal shift away from the private car for commuters. However, bus links between many villages are infrequent.
- 4.19 Central Bedfordshire includes a varied and contrasting landscape. In the Northern Area, the Greensand Ridge is of high biodiversity value and comprises extensive woodlands, remnant heaths and acid grasslands, as well as open spaces for locals and visitors. The heathlands of the Greensand Ridge are amongst very few examples of this habitat in central England. The Area also contains examples of national priority chalk grassland and wetland habitats.
- 4.20 The Northern Area is the most heavily wooded part of Bedfordshire. The Forest of Marston Vale is one of only 12 Community Forests throughout the UK and has made a significant impact in regenerating

the local environment, whilst providing communities with access to green space. A small part of the Area falls within the Chilterns Area of Outstanding Beauty. The District contains a wide and interesting range of medieval settlements and sites and has a rich built and archaeological heritage. There are 1,385 Listed Buildings and 37 designated Conservation Areas within the District.

- 4.21 The high quality of the natural environment is coming under development pressure from several directions, with Luton, Milton Keynes, Northampton, Stevenage and Cambridge all expanding fast. The rapid growth in population and households also puts substantial additional strain upon natural resources. In particular, the East of England is a relatively dry Region, and water resource availability is limited.
- 4.22 The Area has long provided landfill capacity for waste (largely within worked out clay-pits) from a large area of South East England, particularly Greater London. Some landfill sites are old, having been begun in the 1940s, and are not built to high environmental specifications. Current landfills are at or close to capacity. Several capped landfills are now receiving additional waste where the original waste has degraded and subsided.

Key Sustainability Issues

- 4.23 The following key sustainability issues are considered to be priorities for sustainability, arising from the particular characteristics, pressures and opportunities currently affecting the Northern Area of Central Bedfordshire:
- i. The Area is experiencing rapid population growth, and is subject to intense development pressure. This will need to be carefully managed to ensure that growth is well integrated with existing development, with good design to promote a sense of identity.
 - ii. The Area has become a popular place to live for people working outside of the Area. This has resulted from the availability of cheaper housing than in London and Hertfordshire, alongside the Area's accessibility by rail and road to areas such as Milton Keynes, Bedford, Cambridge, Stevenage and London. The associated out-commuting can result in unsustainable transport patterns, and less balanced communities.
 - iii. House prices within the Area have risen considerably, putting home ownership beyond the means of many people working in the less well paid jobs within the Area. This exacerbates Issue ii (above), since those people who can afford to buy houses within the Area are often those who work outside the District.
 - iv. Levels of car ownership and use in the Area are very high, and reducing reliance on the car is hindered by the relatively scattered

population distribution. This causes problems for sustainability associated with emissions, and difficulties in providing viable and convenient public transport.

- v. The Area contains many valued landscapes, woodlands, habitats and species, as well as a diversity of historic assets. Development pressure must be managed in such a way as to continue to protect and enhance these resources.
 - vi. The East of England is a relatively dry region, with limited available water resources. The extent and distribution of new development will need to have regard to water availability, and incorporate water efficiency measures.
 - vii. The Area continues to receive waste for landfill from a large area of South East England, including Greater London. However, landfill sites are nearing or at capacity, and there is a need to support the development of alternatives to landfill.
- 4.24 The SA Framework presented later in this Section sets out objectives to address these issues. The Framework also includes objectives relating to, for example, generation of renewable energy which, whilst not specific to the Area, is a crucial component of sustainable development and needs to be progressed everywhere.

The SA Framework

- 4.25 The proposed SA Framework provides the basis by which the sustainability effects of emerging Local Development Documents will be described, analysed and compared. It includes a number of sustainability objectives, elaborated by 'decision-aiding questions'. These were distilled from the information collated during the review of relevant Plans and Programmes and the review of Baseline Information (detailed earlier in this section), the key sustainability issues identified (as detailed in paragraph 4.23), as well as from discussions with planning professionals with extensive experience working in the Area.
- 4.26 The sustainability objectives seek to address and progress the main sustainability issues and opportunities identified as important in the Area. The decision-aiding questions assist by clarifying the detail of the issues, improving objectivity, ensuring that the appraisal is relevant to land use planning, and making the SA Framework more locally specific.
- 4.27 The SEA Directive requires that the effects of the LDF upon biodiversity; landscape; cultural heritage; water; air; climatic factors; soil; flora; fauna; human health; population and material assets are considered. To demonstrate compliance with the SEA Directive, we have indicated within the SA Framework which sustainability objectives progress which of these SEA topics. (The relevant SEA topics are italicised within the Framework).

4.28 The framework has been updated (in mid 2006) to accommodate recommendations resulting from the scoping consultation exercise. It was further revised in 2008-2009 to tailor it specifically to the needs of SA of Site Allocations. The updated framework is provided below at Table 4.1. Some SA Objectives were deleted from the Site Appraisal framework because all developments would be required to meet these objectives in accordance with the Core Strategy/Development Management Document, irrespective of site location. Those categories are:

3. Housing

8. Waste

10. Energy

11. Sustainable Construction

14. Built Environment

4.29 The category **6. Health** was also deleted as the decision-aiding questions are also to be considered under the balanced communities categories and accessibility. However the final Cumulative Effects analysis considers all of the objectives, as they are considered relevant at the District level.

Table 4.1: The LDF SA Framework and revised SA Framework tailored to Site Allocations

SA Objective & Decision-Aiding Question- LDF : Will it (the Policy)...?	Decision-aiding question- Site Allocations: Could the site.....?
1 Building Communities (SEA Topics: Population; Human Health; Cultural Heritage) Promote sustainable communities that meet people's needs <ul style="list-style-type: none"> Continue to address existing shortages of facilities, particularly in smaller communities Promote balanced communities with a range of housing size and tenure Reduce exclusion of groups including the young and the elderly Provide spaces for the development of social networks, such as open spaces, community halls, and recreational facilities. Promote an appropriate hierarchy of viable centres Protect and enhance the character and identity of towns and villages 	<ul style="list-style-type: none"> Promote balanced communities with a range of housing size and tenure Provide spaces for the development of social networks, such as open spaces, allotments community halls, and recreational facilities. address existing shortages of facilities, particularly in smaller communities
2 Infrastructure (SEA Topics: Material Assets) Ensure provision of infrastructure and facilities appropriately phased with new development <ul style="list-style-type: none"> Ensure infrastructure keeps pace with the growing population. Promote measures to minimise additional pressure on infrastructure (such as roads, water supply, water treatment, flood defence) resulting from new development Accommodate enhancements to the network of Green Infrastructure 	<ul style="list-style-type: none"> Deliver enhancements to the network of Green Infrastructure (transport covered in SA objective 5, community infrastructure in SA objective 1)
3 Housing (SEA Topics: Population) Provide good quality housing for all <ul style="list-style-type: none"> Deliver affordable housing, including meeting the identified needs of local people. Recognise the role of Mid Bedfordshire to accommodate housing growth within the regional and sub regional context Provide accommodation to meet the needs of different sectors of the community, including the elderly, gypsies and travellers, and students 	<ul style="list-style-type: none"> Not applicable to site appraisal as all sites required to achieve this.
4 Economy and Employment (SEA Topics: Population) Secure an economically buoyant future with a diverse range of quality employment opportunities <ul style="list-style-type: none"> Secure employment opportunities and reduce out-commuting Make the most of gateways and national and regional transport corridors Promote economic diversification. Provide for economic clusters Recognise the economic role of Mid Bedfordshire within the strategic context, including the sub region Promote good quality tourism which respects its environmental and social surroundings Promote viable retail appropriate to settlement size 	<ul style="list-style-type: none"> Contribute employment floorspace? Lead to a loss of employment land/jobs?
5 Transport (SEA Topics: Air; Climatic Factors; Population; Material Assets) Reduce dependence on the car	

SA Objective & Decision-Aiding Question- LDF : Will it (the Policy)...?	Decision-aiding question- Site Allocations: Could the site.....?
<ul style="list-style-type: none"> Enhance the quality, capacity and flexibility of public transport Improve public transport links within (not just into and out of) the District Enhance and extend opportunities for walking and cycling Locate development so as to reduce the need to travel by car Focus most growth within the main settlements 	<ul style="list-style-type: none"> Help to reduce the need to travel by car Provide improvements to the transport network which would have wider benefits beyond the site? Provide opportunities to extend or improve the cycle/footpath network? Is the site within a main settlement?
6 Health (SEA Topics: Human Health) Provide an environment that leads to a healthy and safe lifestyle	
<ul style="list-style-type: none"> Make safe provision for walking and cycling Protect and increase provision of public open space and allotments accessible to residents Promote design that reduces crime, the fear of crime and anti-social activities 	<ul style="list-style-type: none"> Omitted from site appraisal criteria as covered under objective 5 Transport and objective 1 Building communities.
7 Water (SEA Topics: Water) Promote sustainable water management	
<ul style="list-style-type: none"> Reduce demand for water resources Have regard to availability of water resources when planning growth Ensure all new development incorporates water efficiency measures such as grey water recycling Promote sustainable flood risk management and ensure development is not at risk of flooding and does not increase flood risks to existing properties 	<ul style="list-style-type: none"> Ensure development is not at risk of flooding and does not increase flood risks to existing properties (note: all development can incorporate sustainable water use)
8 Waste (SEA Topics: Material Assets) Promote sustainable waste management	
<ul style="list-style-type: none"> Ensure the minimisation, reuse, recycling and recovery of construction, commercial, industrial and household materials and waste. Support development of alternatives to landfill, including composting facilities and energy from waste Accommodate new recycling facilities, both for existing and new development Take account of the Bedfordshire and Luton Minerals and Waste Development Framework 	<ul style="list-style-type: none"> Not applicable to site appraisal as sustainable waste management practices can be incorporated into all sites.
9 Climate Change (SEA Topics: Climatic Factors) Reduce the contribution to and manage the effects of climate change	
<ul style="list-style-type: none"> Reduce greenhouse gas emissions Have regard to the likely impacts of climate change Promote sustainable drainage 	<ul style="list-style-type: none"> Minimise greenhouse gas emissions (Reduce vehicular traffic) Support a combined heat & power plant or other large scale renewable energy Provide an exemplar of sustainable development of a significant scale.
10 Energy (SEA Topics: Climatic Factors; Population; Material Assets) Enhance energy efficiency and increase production from renewable sources	
<ul style="list-style-type: none"> Encourage renewable energy proposals, including micro-generation Insist upon a proportion of renewable energy generation in all new development 	<ul style="list-style-type: none"> Not applicable to site appraisal as all developments can incorporate energy efficiency and are capable of incorporating renewable energy

SA Objective & Decision-Aiding Question- LDF : Will it (the Policy)...?	Decision-aiding question- Site Allocations: Could the site.....?
<ul style="list-style-type: none"> Promote reductions in domestic, commercial and vehicular energy consumption Encourage Combined Heat and Power (CHP), and passive solar gain 	(see also Objective 9).
11 Sustainable Construction (SEA Topics: Air; Water; Climatic Factors) <i>Insist upon sustainable construction</i>	
<ul style="list-style-type: none"> Ensure inclusion of energy and water efficiency measures in all new development Promote reduction, reuse and recycling of existing building materials on-site Promote use of locally sourced construction materials Require sustainable construction by the implementation of BREEAM and the Code for Sustainable Homes Level 3 	<ul style="list-style-type: none"> Not applicable to site appraisal -all developments can incorporate sustainable construction
12 Biodiversity (SEA Topics: Biodiversity; Flora; Fauna) <i>Protect and enhance the diversity and abundance of wildlife habitats and native species</i>	
<ul style="list-style-type: none"> Extend the network of sites and species of nature conservation value, both those statutorily designated and those of local value Protect and enhance those species and habitats identified in the BAP Prevent habitat fragmentation and create habitat corridors Conserve ancient or semi-natural features such as woodlands, hedgerows, old meadows and ponds Increase the area of acid grassland/heathland in the Greensand Ridge Further the aims of the Community Forest, incl. increasing woodland cover Promote biodiversity in Green Infrastructure 	<ul style="list-style-type: none"> Could the site impact upon valuable flora, fauna, wildlife habitats and species? Does the site provide opportunities for green infrastructure and biodiversity enhancement, including creation of habitat corridors? Does the site further the aims of the Community Forest, including increasing woodland cover?
13 Landscape (SEA Topics: Landscape) <i>Conserve and enhance the landscape, whilst increasing opportunities to enjoy it</i>	
<ul style="list-style-type: none"> Maintain a high quality visual environment, and promote reinforcement of landscape character Avoid adverse impacts upon the landscape resulting from new development Promote opportunities to enjoy the countryside 	<ul style="list-style-type: none"> Impact adversely on landscape of value? Will the site lead to coalescence of existing towns and villages? Is the site on green belt land?
14 Built Environment (SEA Topics: Cultural Heritage; Population) <i>Secure high standards of design, and protect and enhance the character of the built environment</i>	
<ul style="list-style-type: none"> Ensure high standards of design in all new development Conserve and enhance the character of the District's towns and villages Secure improvements to the public realm Protect and enhance Listed Buildings and their settings, as well as Conservation Areas 	<ul style="list-style-type: none"> Not applicable to site appraisal -high standards of design can be achieved in all development Other matters considered under SA objective 15.
15 Historic and Cultural Heritage (SEA Topics: Cultural Heritage) <i>Help ensure the historic and cultural heritage is protected and enjoyed</i>	
<ul style="list-style-type: none"> Protect and enhance the historic environment, including ancient monuments and sites of archaeological interest Promote sustainable access to and interpretation of historic and cultural sites 	<ul style="list-style-type: none"> Impact adversely on valued townscapes? Impact adversely on the historic environment, including ancient monuments and sites of archaeological interest? Does the site provide opportunities for sustainable access to and interpretation of historic and cultural sites

SA Objective & Decision-Aiding Question- LDF : Will it (the Policy)...?	Decision-aiding question- Site Allocations: Could the site.....?
16 Land and Soils (SEA Topics: Soil) Make efficient use of land and soils <ul style="list-style-type: none"> Secure higher density development Reuse empty properties Remediate contaminated sites Protect productive agricultural land Use previously developed land 	<ul style="list-style-type: none"> Is the site on previously developed land? Capable of supporting higher density development? Is the site on valued agricultural land?
17 Pollution (SEA Topics: Human Health; Air; Water; Soil) Reduce pollution <ul style="list-style-type: none"> Reduce and manage noise pollution Minimise light pollution Reduce harmful emissions to air Reduce pollution of water 	<ul style="list-style-type: none"> Result in increased noise or air pollution for existing settlements? Result in increased light pollution in rural areas and loss of tranquillity? Result in increased water pollution?

5.0 SA OF ALTERNATIVES

Introduction

- 5.1 Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment ('the SEA Directive') requires reasonable alternatives to a plan or programme to be '...identified, described and evaluated' [Article 5(1)]. This is to ensure that the authorities and public are informed as to the '...reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with' [Article 9(1)(b)]. As discussed in section 3, the SA has considered the strategic alternatives available to Council in the progression of its Site Allocations Document and considered that the 2 alternatives available relate to:

- The overarching spatial location for development;
- The location of sites, as determined by the method used by Council (and developed jointly with Enfusion) to appraise the sites

The overarching spatial location for development

- 5.2 Four options for an overall strategic spatial strategy were presented in a leaflet "*Plan this Place*" for wider public consultation and discussed in the SA of the Core Strategy and Development Management Document:

- Option 1: 85% of new development concentrated at 4 major centres: Biggleswade, Sandy, Ampthill and Flitwick.
- Option 2: 40% of new development to 4 major centres and 55% to the 6 minor centres
- Option 3: 40 % of new development to 4 major centres, 30% to minor, 20% to large villages and 10% to small villages
- Option 4: shares new development between small number of large new developments

- 5.3 The emerging thinking on these four overall options was subject to SA in April 2007. The SA considered that Option 1 would contribute most to the regeneration and economy of the 4 centres and had the best potential for reducing greenhouse gas emissions through concentrating development close to existing transport networks, improving viability for new services, and increasing walking and cycling, in addition to increasing efficiencies in infrastructure provision. There were also benefits to other approaches, particularly Option 4.

- 5.4 Council has since further developed the overall development strategy as follows:

- Two settlements have been identified as having potential for sustainable growth beyond that which would be expected from their position in the Settlement Hierarchy. These settlements

(Arlesey and Silsoe) have been specifically identified to receive more significant levels of development than might be expected as they are considered to be sustainable locations.

- Setting aside these two locations and the new development proposed there, the remaining requirements for new development are broadly apportioned by the ratio 60/30/10 – 60% of development going to the Major Service Centres, 30% to the Minor Service Centres and 10% to the Large and Small Villages.

- 5.5 The Sustainability Appraisal of the development strategy is further detailed in the SA of the Core Strategy and Development Management DPD. As a lower-tier document, the Site Allocations Document must conform to the Development Strategy as set out in the Core Strategy, therefore the overarching spatial location for development is not considered further in this SA Report.

The location of sites, as determined by the method used by Council (and developed jointly with Enfusion) to appraise the sites

- 5.6 Having determined that the overarching spatial location for development is not a viable alternative in the preparation of the DPD, it may be considered that the process used to select sites is a strategic alternative.
- 5.7 To assist Central Beds Council in the preparation of the DPD, Enfusion have been involved on an ongoing and iterative basis in developing the site selection method. This involvement began in November 2008, with commentary on an early site selection draft and suggestions for how to integrate SA into the site selection process. A workshop was held with Officers in January 09 to assist in developing a detailed method. This has been further refined by Council in early 2009 with input from Enfusion. The method contains 3 stages, including an initial exclusionary stage, a discretionary second stage involving a traffic-light approach, and a final detailed assessment stage. An SA compatibility analysis of the method was undertaken in April 09 to assess its sustainability and is provided at Appendix II. Further refinements were made to the method, which is now considered to provide a good coverage of sustainability issues and therefore sound from an SA perspective. The relationship between the method and the SA Framework is illustrated in the following table:

Table 5.1: Comparative Appraisal of Site Selection Method against SA Framework

SA Objective	SSA Decision-Aiding Question Will it (the Policy)...?	Correlating Site Appraisal criteria Stages 1 & 2	Correlating Site Appraisal criteria Stage 3
1 Building Communities	<ul style="list-style-type: none"> Promote balanced communities with a range of housing size and tenure Provide spaces for the development of social networks, such as open spaces, allotments community halls, and recreational facilities. address existing shortages of facilities, particularly in smaller communities 		
2 Infrastructure	<ul style="list-style-type: none"> Deliver enhancements to the network of Green Infrastructure (transport covered in SA objective 5, community infrastructure in SA objective 1) 	<ul style="list-style-type: none"> Stage 2: Proximity to schools, shops, health centre, town/settlement centre. 	<ul style="list-style-type: none"> Physical Limitations: Access, Drainage Infrastructure, Utilities provision (water supply, sewerage, electricity etc.)
3 Housing	<ul style="list-style-type: none"> Not applicable to site appraisal as all sites required to achieve this. 	<ul style="list-style-type: none"> Stage 1: Is the site proposal for less than 4 dwellings? 	
4 Economy and Employment	<ul style="list-style-type: none"> Contribute employment floorspace? Lead to a loss of employment land/jobs? 	<ul style="list-style-type: none"> Stage 2: Proximity to location employing 500 or more people 	
5 Transport	<ul style="list-style-type: none"> Help to reduce the need to travel by car Provide improvements to the transport network which would have wider benefits beyond the site? Provide opportunities to extend or improve the cycle/footpath network? Is the site within a main settlement? 	<ul style="list-style-type: none"> Stage 2: Proximity to schools, shops, health centre, town/settlement centre. Stage 2: Proximity to location employing 500 or more people Stage 2: Site proximity to bus services, train station, local major road network 	
6 Health	<ul style="list-style-type: none"> Covered under objective 5 Transport and objective 1 Building communities. 		<ul style="list-style-type: none"> Physical Limitations: Land condition (e.g. Contamination), Physical constraints/permanent features(eg steepness, pylons, sub stations, tel mast)

SA Objective	SSA Decision-Aiding Question Will it (the Policy)...?	Correlating Site Appraisal criteria Stages 1 & 2	Correlating Site Appraisal criteria Stage 3
7 Water	<ul style="list-style-type: none"> ensure development is not at risk of flooding and does not increase flood risks to existing properties (note: all development can incorporate sustainable water use) 	<ul style="list-style-type: none"> Stage 1: Is the site wholly within Flood zone 2/3 	<ul style="list-style-type: none"> Physical Limitations: Drainage Infrastructure, Utilities provision (water supply, sewerage.)
8 Waste	<ul style="list-style-type: none"> Sustainable waste management practices can be incorporated into all sites. 	<ul style="list-style-type: none"> Stage 1: Is the site an identified site in the Minerals and waste Local Plan and emerging LDF 	
9 Climate Change	<ul style="list-style-type: none"> All development can incorporate energy efficiency. Note: Reducing vehicular traffic and enhancing accessibility will assist in meeting this objective- this is covered under SA objective 5: Transport 	<ul style="list-style-type: none"> Cross cutting: See objectives 5: Transport, 7: Water, 2: Infrastructure, 4: Employment, 10: Energy 	
10 Energy	<ul style="list-style-type: none"> All developments can incorporate energy efficiency and are capable of incorporating renewable energy. Note: CHP is more likely to be viable on larger sites. 		
11 Sustainable Construction	<ul style="list-style-type: none"> All developments can incorporate sustainable construction 		
12 Biodiversity	<ul style="list-style-type: none"> Could the site impact upon valuable flora, fauna, wildlife habitats and species? Does the site provide opportunities for green infrastructure and biodiversity enhancement, including creation of habitat corridors? Does the site further the aims of the Community Forest, including increasing woodland cover? 	<ul style="list-style-type: none"> Stage 1: Is the site likely to have a significant effect on a site of international or national biological or geological significance? 	<ul style="list-style-type: none"> Protecting the environment: Site Impact on Biodiversity
13 Landscape	<ul style="list-style-type: none"> Impact adversely on landscape of value? Will the site lead to coalescence of existing towns and villages? Is the site on green belt land? 	<ul style="list-style-type: none"> Stage 1: Is the site wholly in important Countryside gaps? Stage 2: Relationship to existing settlements (i.e. within or bordered by 	<ul style="list-style-type: none"> Protecting the environment: Site Impact on Landscape Character

SA Objective	SSA Decision-Aiding Question Will it (the Policy)...?	Correlating Site Appraisal criteria Stages 1 & 2	Correlating Site Appraisal criteria Stage 3
		existing settlement envelope or physically isolated?)	
14 Built Environment	<ul style="list-style-type: none"> High standards of design can be achieved in all development Other matters considered under SA objective 15. 		
15 Historic and Cultural Heritage	<ul style="list-style-type: none"> Impact adversely on valued townscapes? Impact adversely on the historic environment, including ancient monuments and sites of archaeological interest? Does the site provide opportunities for sustainable access to and interpretation of historic and cultural sites 	<ul style="list-style-type: none"> Stage 1: Is the site likely to have a significant negative effect on a nationally important archaeological site or monument or a nationally or internationally important historical site? 	<ul style="list-style-type: none"> Protecting the environment: Site Impact on Heritage
16 Land and Soils	<ul style="list-style-type: none"> Is the site on previously developed land? Capable of supporting higher density development? Is the site on valued agricultural land? 	<ul style="list-style-type: none"> Stage 1: Is the site within the green belt? Stage 2: percentage of site on PDL 	<ul style="list-style-type: none"> Protection of Best and most versatile Agricultural Land: Quality of Agricultural Land Physical Limitations: Land condition (e.g. Contamination), Physical constraints/permanent features(e.g. steepness, pylons, sub stations, tel mast)
17 Pollution	<ul style="list-style-type: none"> Result in increased noise or air pollution for existing settlements? Result in increased light pollution in rural areas and loss of tranquillity? Result in increased water pollution? 	<ul style="list-style-type: none"> Cross-cutting: See objectives 5: Transport, 2: Infrastructure, 4: Employment, 10: Energy 	<ul style="list-style-type: none"> Environmental factors & conflict with neighbouring land uses: (Heavy/hazardous industry, sewerage works, pollution. Dust, odour, noise, heavy industry, transport)

6.0 SA OF STRATEGIC SITES AND CUMULATIVE EFFECTS

- 6.1 The sites that successfully passed through Stage 2 of the Assessment process were subject to sustainability appraisal. Where considered to be of a significant size (above 300 dwellings or greater than 3 ha employment land) the sites were subject to individual sustainability appraisal to determine if any strategic sustainability effects were likely. The smaller sites were considered in terms of their cumulative effect on individual settlements. Following is the summary of the appraisal of the strategic sites and cumulative effects for each settlement.

SA OF STRATEGIC SITES

- 6.2 Sustainability Appraisal of the Strategic Sites was undertaken in November 2009. The method of site appraisal involved a settlement-based approach, utilising the information that was available and informed the performance of sites against the 3 stage Site Selection method, which, as discussed in the preceding section, had already been found to be compatible with the SA Framework.

Flitwick- Site Allocation H077/E62

- 6.3 These sites together provide opportunities for well related mixed development that supports SA objectives to build sustainable communities and promote economic buoyancy by providing a mix of housing and employment. No significant, strategic negative effects for water, landscape, land and soils or biodiversity are identified. By ensuring suitable levels of green infrastructure as part of any development, positive effects for biodiversity objectives and wider social objectives are also possible in the medium and longer term.
- 6.4 There is the potential for negative effects to arise in relation to transport through increased car usage, the effects may be cumulative and also result in uncertainties as to the likely effects on related climate change and pollution objectives. Mitigation measures, such as Green Travel Plans are recommended and should be focused on addressing these potentially significant effects (e.g. reducing private car mileage, developing cycle routes, promoting improved public transport and accessibility). Opportunities to make best use of existing rail facilities at the mixed use site should be promoted, and the proposed transport interchange provides support for improved public transport facilities.

Biggleswade- Site Allocation H347

- 6.5 This site provides good potential for a range of housing types, and its contribution to community and economy SA objectives would be improved through the inclusion of facilities (shops, school etc). No significant, strategic negative effects for water, landscape, land and soils or biodiversity are identified and by ensuring suitable levels of green infrastructure as part of any development (for example by

maintaining and promoting paths and access points through the development), positive effects for biodiversity objectives and wider social objectives are also possible in the medium and longer term.

- 6.6 The location of this site on the periphery of the existing settlement envelope means that there is potential for a significant increase in road traffic that would require appropriate/ strong mitigation measures to reduce dependence on car based transport (e.g. improved public transport services, safe walking and cycling routes etc). The potential for the effects of increased traffic on the environment to be cumulative (e.g. in terms of aerial pollution locally and cumulatively in relation to climate change objectives) will require that mitigation measures for identified strategically significant effects relating to transport are addressed prior to development.

Biggleswade- Site Allocation E11/E67

- 6.7 This site progresses key SA objectives for employment and there are direct and indirect benefits for building sustainable communities through increased employment opportunities in the area. The allocation extends an existing business park and whilst the development will make use of greenfield agricultural land, there are no identified significant negative effects for biodiversity, landscape or water SA objectives.
- 6.8 There is potential for an increase in road traffic at this site, which may be significant both locally and cumulatively for the surrounding road network. Mitigations (Green travel plan, infrastructure improvement, phasing of development etc) will be required to address the negative effects associated with increased traffic impacts including local level pollution issues and wider climate change impacts both in the immediate and longer term.

Sandy- Site Allocation E38, H295, H240, H276

- 6.9 The proposed sites provide good progression for the SA objectives relating to economy and employment and building communities, through the provision of employment space, mixed development and well located housing that can provide a range of size and tenures. Cumulative positive effects are likely against these objectives.
- 6.10 Whilst the potential for increased transport and dependency on car travel is noted (with commensurate negative effects for transport and climate change & pollution SA objectives) there are clear opportunities to offset the negative impacts identified through the promotion of rail use and improved public transport facilities. No long term strategically significant negative effects were found against these objectives.

Wixams- North Marston Vale Contingency Allocation

- 6.11 This site provides strong progression for the SA objectives on communities and economy and employment through the delivery of mixed housing and employment opportunities. There are no strategic significant negative effects against the key SA objectives of climate change, pollution and biodiversity.
- 6.12 There is the potential for positive long term cumulative effects, in particular for community and employment objectives through expansion of mixed use development.

Cranfield-Site Allocation E82

- 6.13 This site provides good support for and progression of key sustainability objectives – in particular for employment and the economy. The reuse of previously developed land and the proximity to existing development with related uses, supports wider objectives for promoting sustainable communities, and core environmental objectives relating to land and soils.
- 6.14 There are no strategic significant effects identified for biodiversity and landscape objectives and mitigation measures can address minor issues noted in relation to water and those relevant to transport.

Arlesey- Site Allocation H293

- 6.15 There are positive effects both long term and cumulative in relation to the SA 'Building communities' objective given the potential of the site to contribute a mixed profile of housing. To ensure wider longer term benefits, in particular for the economy and employment, it may be necessary to incorporate additional facilities and local infrastructure improvements into development proposals.
- 6.16 Mitigation of minor impacts on biodiversity and landscape should also be addressed through the provision of GI and habitat corridors. The potential for significant negative effect against transport SA objectives, both in the short term and cumulatively over time, should be addressed through a package of mitigation measures (road infrastructure improvements and importantly sustainable travel options).

Arlesey- Site Allocation E12a

- 6.17 This site performs well against SA objective for the employment, economy and the community through the provision of employment space that can provide a range of opportunities in a location that is accessible to location populations. Cumulative effects with housing

related development in particular are likely to be positive. No strategic significant effects are identified for key environmental SA objectives (water, biodiversity, land and soils, landscape) and there is potential for retention and enhancement of local biodiversity interest through the incorporation of multifunctional green space/ GI throughout the development.

- 6.18 Potential negative effects relate primarily to transport issues and the possibility of increased road traffic with cumulative effects locally (e.g. on major A roads and nearby motorway junctions). These cumulative effects may become longer term and therefore mitigation packages will be required to provide suitable alternatives (cycle, pedestrian, public transport) to minimise local pollution effects and potential contributions to wider climate change related emissions.

CUMULATIVE EFFECTS ANALYSIS: EFFECT ON INDIVIDUAL SETTLEMENTS

- 6.19 Whilst it was considered that any site less than 300 dwellings or 3 ha employment land was unlikely to have a significant effect alone, it may, together with other proposed sites have a cumulative effect. The sustainability effects of the DPD were thus considered for each settlement within the District.

MAJOR SERVICE CENTRES: Ampthill/ Flitwick, Biggleswade, Sandy and the Wixams

Ampthill

H052/H083 Land west of Abbey Lane, Housing 410 dwellings

E64 Doolittle Mill Phase 2, Employment B1 (office)

E68 Doolittle Mill Phase 1, Employment B1 (office)

Flitwick

No further cumulative effects identified- See SA of Strategic Sites (paragraph 6.3).

- 6.20 The proposed allocations are well related to existing developments and there are no strategically significant effects in relation to key environmental SA objectives. Community SA objectives are effectively progressed through the provision of housing and services, with the potential for positive, long term cumulative effects.
- 6.21 Overall development at Ampthill combined with its relative proximity to Flitwick may result in traffic increases that are strategically significant for the area. Mitigation in the form of infrastructure improvements and measures for sustainable transportation (H052 and H083 in particular) will be required to accompany development proposals.

Biggleswade**H347 Land at Potton Road 330 dwellings****E11/E67 Land at Stratton Farm Employment B2 and/or B8 (10ha)**

- 6.22 Cumulatively, the development sites (E11/67), progresses key SA objectives for employment and there are direct and indirect benefits for building sustainable communities through increased employment opportunities in the area. The extension of an existing business park and the provision of additional employment land supports aims to secure an economically buoyant future for the area.
- 6.23 The appraisal has identified that overall the allocations provide good opportunities for a range of housing types, and there is the potential for positive long term contributions to community and economy SA objectives, although cumulative outcomes would be improved through a greater focus on mixed development and the inclusion of facilities (shops, school etc).
- 6.24 Overall, increased development – in particular where sites are on the periphery of the existing settlement envelope, may lead to a significant increase in road traffic that would require appropriate/ strong mitigation measure to reduce dependence on car based transport (e.g. improved public transport services, safe walking and cycling routes etc).
- 6.25 The potential for the effects of increased traffic on the environment to be cumulative (e.g. in terms of aerial pollution locally and cumulatively in relation to climate change objectives) will require that mitigation measures for identified strategically significant effects relating to transport are addressed prior to development.

Sandy

- 6.26 No further cumulative effects identified- See SA of Strategic Sites (paragraph 6.10).

Wixams

- 6.27 No further cumulative effects identified- See SA of Strategic Sites (paragraph 6.12).

MINOR SERVICE CENTRES: Pottton, Marston Mortaine, Shefford, Cranfield, Stofold, Arlesey,**Pottton****H237/H356 development of 90 dwellings****H075/H199 development of 120 dwellings, B1 employment and community facilities**

- 6.28 The sites are outside the existing settlement envelop and are adjacent to existing residential settlements and open space/ agricultural land. The developments have the potential to actively progress sustainability objectives for building communities, in particular through the provision of a range of housing types and tenures and by providing space for facilities e.g. community halls. This mixed development (H075/H199) will have positive cumulative effects, providing support for existing services (school, pre-school provision, doctors, leisure facilities) and opportunities for sustained improved service provision, shops etc.
- 6.29 Where development occurs on greenfield sites it should ensure that existing habitat is maintained and given the relationship/ linkages between these proposed sites provide for multifunctional green infrastructure that maintains and supports existing habitat and species corridors, as well as providing leisure space for new and existing communities.
- 6.30 Changes in transport requirements and the potential for increased road/ car dependency may be strategically significant for this location, and there will be a requirement for improved access and the integration of sustainable transport options as an integral part of the development (e.g. extensions to the proposed national cycle routes, safe pedestrian access, improved public transport options).

Marston Moretaine**E09: Land at Moreteyne Farm, Marston Moretaine (employment and residential)**

- 6.31 There are no strategically significant constraints identified and this development is acceptable at a strategic level. The overall long term cumulative effects are potentially positive for both communities and employment SA objectives. Population growth may also help to improve the viability of services and facilities. The transport effects are also potentially positive for this location in the longer term, given the opportunities to link to established rail connections, and if alternatives to car/ road travel are promoted.

Shefford**H163 development of 52 dwellings****H055 development of 120 dwellings, public open space, playing field, areas for conservation, leisure, community hall,****H171/ H019 mixed use development 70 dwellings, 2 ha of small scale business use and local amenity/ play space**

- 6.32 Positive long term, cumulative effects against the building communities SA objective are identified for these developments. The improvement of services and facilities from mixed development has the potential to support balanced social development for existing and growing communities (e.g. through support for pre-school, school facilities and promoting viability of locally based healthcare centres).
- 6.33 There are no significant sustainability constraints noted in relation to key environmental objectives (biodiversity, landscape, historic cultural heritage), however incremental loss of open/ green spaces should be mitigated by locally specific/ appropriate measures (e.g. incorporation of GI/maintenance and enhancement of habitat) to ensure that overall cumulative effects of development of positive.
- 6.34 There are uncertain effects in relation to traffic (and associated pollution effects with regard to H055, H171/H019) that will require mitigation (sustainable travel measures) to ensure that negative effects are not cumulative, and/or result in wider effects for neighbouring settlements, though this is less likely given the scale of development.

Cranfield**H 104 development of 20-25 dwellings****H040/H133/H322 development of 135 dwellings, lower school and doctors surgery**

- 6.35 Long term cumulative benefits and improvements to local community facilities (e.g. through the provision of health care facilities and a lower school) are likely to arise from the collective proposed developments. Population growth provides support for viability of existing services and the provision of new/ expanded services e.g. a library facility, with possible cumulative benefits.
- 6.36 There are no strategically significant sustainability constraints against environmental objectives (water, biodiversity, land & soils). Developments of all scales should seek to incorporate GI to provide multifunctional space (e.g. enhance biodiversity interest) and should provide mitigation for local level setting/ landscape impacts where necessary.

Stotfold**H260 development of 85 dwellings****H129 development of 9 dwellings**

- 6.36 There are no strategically significant sustainability constraints identified for these proposed developments. The overall effects are potentially positive and long term at this location. The proposals are acceptable at a strategic level and may provide sustainability benefits through the development of balanced communities and economic opportunity, particularly through the provision of housing & services with enhanced viability for key facilities, leading to positive effects in the medium and longer term.
- 6.37 The cumulative effects with existing/ allocated development proposals also likely to be positive for community and employment objectives at this location.

Arlesey

Site H293: West and East to High Street, Arlesey (1000 Dwellings)

Site E12a: Land at Chase Farm, Arlesey (396 dwellings and B1 (Offices and Light Industrial) around 5 - 10 Ha)

- 6.38 No further cumulative effects identified- See SA of Strategic Sites (paragraph 7.18).

LARGE VILLAGES: Blunham, Clifton, Clophill, Henlow, Langford, Mauldon, Meppershall, Shillington, Silsoe, Stondon

Blunham

Site H091: Trigwell Allen Land adj. 5 Barford Road and r/o 26-40 Station Road & 22-40 The Avenue

- 6.40 The development of approximately thirty six dwellings is not identified as leading to strategically significant sustainability constraints against key SA objectives. Opportunities exist to improve/ enhance service and facilities provision at this location.

Clifton

Site H206, H261: Land at New Road (80 dwellings total)

- 6.41 The development of approximately eighty dwellings in total (H206, 261) is not identified as leading to strategically significant sustainability constraints with regard to communities and employment. Development is considered acceptable at a strategic level. There is potential for the developments to increase traffic on New Road, which already has congestion issues. Effects on land, soils and biodiversity would require mitigation, in particular through the effective incorporation of green infrastructure and habitat retention where possible.

Clophill

Site H042: Dwelling and garden land to the rear of 122a & 124 High Street or land rear of 95 High Street

Site H157: Land adjacent Castle Hill Court, Shefford Road

- 6.42 The development of approximately twenty two to twenty five dwellings is appropriate for a settlement of this size and no strategically significant sustainability constraints are identified. The development is in an area that is currently poorly served by public transport and whilst minor this development has the potential to increase use of the private vehicle. The nearest train station is over 7km from this settlement. Support for improved public transport services as part of an overall package of sustainable transport measures should be considered in mitigation.

Langford**H164 development of 44 sheltered homes for the elderly and land for a cemetery****H160 development of 9 dwellings with a multi use games area (MUGA)**

- 6.43 There are no strategically significant sustainability constraints at this location and development is acceptable at a strategic level. The sites are located either within or very close to the settlement envelope and relate well to the existing development. The provision of homes for the elderly (H164) and the potential for affordable homes provides good support for SA objectives seeking to deliver more balanced communities and these positive effects are likely to be cumulative for the village.
- 6.44 Any future development would further benefit from the provision of additional services/ facilities to complement housing development and sustainable transport measures should be incorporated as standard to mitigate any potential medium term adverse effects and to reduce car dependence in the longer term.

Maulden**Site H218: Land at Moor Lane****Site E18: Land adjacent to 29 Clophill Road**

- 6.45 No strategically significant sustainability constraints are identified at this site. The development of fifteen new dwellings on site H218 has the potential for a minor negative visual impact. The employment allocation E18 is located adjacent to existing employment sites, with the potential for the expansion of local businesses/ synergies with established businesses. Sites offer good progression of housing and economic SA objectives.

Meppershall**H174 development of 68 dwellings, cemetery, GP surgery, community hall and playing field.**

- 6.46 This site provides good progression of the SA objective for balanced communities. In particular the provision of new facilities and health

services alongside housing developments, promotes a balanced approach that will also provide long term cumulative benefits both the new and the existing population.

Shillington**Site H006: Land at High Road**

- 6.47 The development of approximately twenty four dwellings is appropriate for a settlement of this size, however, residents will most likely travel by car to service centres as the village is not currently well served by public transport. Whilst no strategically significant sustainability constraints are identified, progression of SA objectives for this smaller development will be enhanced by the consideration of sustainable transport measures as part of the development.

Silsoe**H106 development of 380 dwellings with B1 business use (note: site has planning permission)**

- 6.48 No strategically significant sustainability constraints are identified at this site. The development of 380 dwellings is substantial and will have a positive effect on affordable housing in the District. The potential for traffic increases should continue to be addressed both locally at this development, and in relation to surrounding developments to ensure that no cumulative negative impacts arise from a growth in traffic movements.

Stondon**H079 development of 70 dwellings, a village green and community facility****H176 development of 13 dwellings**

- 6.49 The appraisal did not identify any strategically significant sustainability constraints at this site. It is noted that H079 proposes a substantial expansion to the existing settlement envelop which will require mitigation to avoid visual and wider traffic impacts on existing communities. The incorporation of community buildings and open space supports and progresses SA objective for balanced communities and longer term benefits are likely for both existing and new residents.
- 6.50 H176 provides housing in proximity to employment, which has potential benefits for sustainability where local employment/ residential options allow for reduced travel. Pedestrian walkways, including the retention of existing rights of way should be a requirement of development.

SMALL VILLAGES: Brogborough, Dunton, Everton, Gravenhurst, Lidlington, Moggerhanger**Brogborough****Site E15: Land between A421 and Marston Gate Distribution Park**

- 6.51 No strategically significant sustainability constraints are identified in relation to this proposed development. It is noted that the existing settlement is poorly served by facilities. Mitigation measures to improve service provision, e.g. a village shop, community space should be considered as part of the overall development. The provision of 500 jobs will contribute to the progression of the SA objective for economy and employment in the long term, and cumulatively support the positive effects of all the proposed employment across the plan area.

Dunton**Site H192: Land off Boot Lane**

- 6.52 This is a small scale development appropriate for a settlement of this size, which will also provide a village hall, sports pitches and allotments providing no strategically significant sustainability constraints and offering significant opportunities to provide benefits against community and employment objectives in the medium to longer term.

Everton**Site H244: 21 Sandy Road****Site H246: Part of the Heath**

- 6.53 The development of fifteen new dwellings and one renovation does not present strategically significant sustainability constraints at this settlement. Development is acceptable against the key sustainability objectives, although consideration should be given to improved service provision to ensure wider community benefits can be realised in the longer term -there is currently a pre-school within walking distance of both sites.

Moggerhanger**Site H154: Land rear of The Guinea PH, Bedford Road, Moggerhanger**

- 6.54 No effects of strategic significance are identified against the SA objectives. However it is noted that existing services in this village are poor and therefore the achievement of building sustainable communities objective may not be actively supported. Where possible consideration should be given to enhance existing and/or providing for new service provision.

CUMULATIVE EFFECTS OF ALL SITES

- 6.55 The site allocations proposed provide strong overall progression of the building communities SA objective through meeting housing need with the provision of a range of mixed allocations at settlements across the plan area. The cumulative effects for population overall are likely to be positive. The plan will also have significant positive, long term effects for the economy and employment through improved employment in existing settlements and new employment provision. Where employment provision is linked to new housing developments additional indirect benefits for community, transport and climate change objectives are likely. Proposals for new housing and employment can also place pressure on existing services, and whilst mitigation recommendations have been incorporated into the DPD (for example where existing provision requires boosting), this is an area that should be monitored by Council to ensure that the effects of new developments are positive for communities.
- 6.56 There are no strategically significant constraints for biodiversity, landscape, historic and cultural heritage, and land and soils objectives. Local level impacts, for example in relation to settlement settings can be addressed by commensurate mitigations and the incorporation of multifunctional green infrastructure has the potential to support and enhance biodiversity interests and provide support for sustainable communities objectives.
- 6.57 There are potential negative effects arising from the overall predicted growth in road based traffic in areas where public transport/ infrastructure is poor. These effects may, however, be mitigated through providing for enhanced connectivity (e.g. the co-location of employment and housing) and the introduction of multi-user rights of way (footways and cycleways). The provision and promotion of public transport will be a key mitigation requirement for avoiding long term negative effects arising from increased car use.
- 6.58 Increases in the area's contribution to greenhouse gas production are likely given the development proposals and will arise not only from transportation but also the embodied energy inherent in construction (housing & employment). The use of sustainable design and construction measures as standards will assist in mitigating this.

Table 6.1 Summary of key significant positive and negative effects of the emerging Site Allocations DPD

Key relevant SA Objective:	Key Positive effects identified:
Building Communities	Progression of the building communities SA objective through meeting housing need with the provision of a range of mixed allocations at settlements across the plan area
Economy and Employment	Significant positive, long term effects for the economy and employment through improved employment provision in existing settlements and new employment provision
Infrastructure/ Biodiversity	The incorporation of multifunctional green infrastructure has the potential to support objectives for infrastructure and enhance biodiversity interests whilst indirectly providing support for sustainable communities objectives.
Key relevant SA Objective:	Key Negative effects identified:
Transport	Potential negative effects (e.g. noise, congestion, loss of tranquillity) arising from the overall predicted growth in road based traffic in areas where public transport/ infrastructure is poor
Climate Change/ Pollution	Increases in the area's contribution to greenhouse gas production is likely given the development proposals and will arise not only from transportation but also the embodied energy inherent in construction (housing & employment

Recommendations and Progression

6.59 The Sustainability Appraisal has made recommendations throughout the appraisal process. The majority of recommendations involve minimising traffic generation from new development, which is particularly important given the dispersed population pattern in the northern part of Central Bedfordshire. Other recommendations relate to the need for new development to facilitate provision of new community services especially in areas where existing provision is poor. Flooding is an issue for some sites; however this can be mitigated through appropriate site planning and lay-out. These recommendations (provided in detail in Appendices III and IV) have been considered by Council, alongside the consultation comments received, when preparing individual DPD policies for each proposed site. This has helped to improve the overall sustainability of the Site Allocations DPD.

7.0 MONITORING & NEXT STEPS

- 7.1 This section discusses indicators and targets to help monitor the sustainability effects of the DPD and outlines the next steps in the Sustainability Appraisal process.
- 7.2 Government guidance specifies that monitoring arrangements should be designed to:
- highlight significant effects;
 - highlight effects which differ from those that were predicted; and
 - provide a useful source of baseline information for the future.
- 7.3 Government requires local planning authorities to produce Annual Monitoring Reports (AMRs). According to guidance from ODPM, "These need to include the findings of SA monitoring"⁶. Accordingly, the monitoring strategy for the SA should be integrated with the LDF AMR.
- 7.4 Suggested monitoring targets for the Core Strategy and Development Controls DPD have been prepared. These ensure that the significant effects of the Core Strategy and Development Controls DPD will be monitored in the AMR.
- 7.5 The significant effects identified in this Site Allocations SA Report are similar to those identified in the Core Strategy and Development Controls DPD and include positive effects on Building Communities, Economy and Employment and Infrastructure/ Biodiversity, and negative effects on Transport and Climate Change/ Pollution. The suggested monitoring targets for that DPD therefore apply to the Site Allocations DPD, and are provided again below for reference:

Table 7.1 Proposed Targets and Indicators

TARGETS	INDICATORS
1. Building Communities	
	<ul style="list-style-type: none"> ▪ Parishes with a GP, post office, play area, pub, village hall ▪ Percentage of completed retail, office and leisure development in town centres ▪ Mix of housing tenure within settlements
2. Infrastructure	
Achieve Accessible Natural Green space Standards	<ul style="list-style-type: none"> ▪ Provision of new community facilities secured through new developments ▪ Percentage of eligible open spaces managed to green flag award standard
3. Housing	
At least 28% affordable housing on new qualifying sites throughout the district	<ul style="list-style-type: none"> ▪ Percentage of households rented from the Council or in Housing Association/Registered Social Landlords properties

⁶ Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents ODPM, November 2005

TARGETS	INDICATORS
	<ul style="list-style-type: none"> Percentage of new housing which is affordable Average house price compared with average earnings Housing Completions
4 . Economy and Employment	
Reduce the number of residents of Mid Beds travelling out of the District to work	<ul style="list-style-type: none"> Percentage of employees commuting out of the District to work Amount of land developed for employment (by type) Retail health checks/economic prosperity of smaller towns and villages
5. Transport	
Increase travel to school/work by means other than the car	<ul style="list-style-type: none"> Car ownership Mode of travel to work/school percentage of new residential development within 30 minutes public transport time of a GP, hospital, primary and secondary school, employment and a major health centre Kilometres of cycle routes and facilities for cyclists Kilometres of new walking routes provided
6. Health	
Achieve Accessible Natural Green space Standards	<ul style="list-style-type: none"> Life expectancy Hectares of new green space created Obesity levels Crime rate
7. Water	
Decrease water consumption per household	<ul style="list-style-type: none"> Groundwater levels Percentage of new development incorporating water efficiency measures Water consumption per household Number of homes built against Environment Agency advice on flooding
8 . Waste	
<p>Reduce tonnage of waste to landfill</p> <p>Household waste recovery 50% at 2010</p>	<ul style="list-style-type: none"> Tonnage of waste to landfill Recycling rate Waste recovery rate
9. Climate Change	
Reduce greenhouse gas emissions	<ul style="list-style-type: none"> Greenhouse gas emissions
10. Energy	
<p>Renewable energy to meet 10% of the District's energy consumption by 2010 and 17% by 2020</p> <p>All new development to include a proportion of renewable energy generation</p>	<ul style="list-style-type: none"> Renewable energy capacity installed by type Percentage of new development including renewable energy generation Energy consumption
11. Sustainable Construction	
All new development to meet level 3 of Code for Sustainable homes standard	<ul style="list-style-type: none"> Percentage of new development incorporating energy and water efficiency measures, and sustainable drainage systems

TARGETS	INDICATORS
	<ul style="list-style-type: none"> Percentage of new development meeting BREEAM very good/excellent standards Percentage use of aggregates from secondary and recycled sources
12. Biodiversity	
Achieve BAP targets	<ul style="list-style-type: none"> Change in areas and populations of biodiversity importance Condition of designated sites Change in area of woodland Proportion of new developments delivering habitat creation or restoration
13. Landscape	
All new development to demonstrate compatibility with countryside character	<ul style="list-style-type: none"> Hectares of new development outside settlement boundaries Hedgerow and/or veteran tree loss
14. Built Environment	
Reduce the number of Listed Buildings at risk	<ul style="list-style-type: none"> Listed Buildings at risk
15. Historic and Cultural Heritage	
All new development to take into account historic assets and/or demonstrate links with cultural context	<ul style="list-style-type: none"> Condition of Conservation Areas Number of historic parks and gardens
16. Land and Soils	
At least 60% of all new development using previously developed land or reusing buildings	<ul style="list-style-type: none"> Use of previously developed land Density of new residential development Number of sites/hectares decontaminated as a result of new development
17. Pollution	
Reduce pollution	<ul style="list-style-type: none"> Number of complaints about noise received by the Council Number of pollution-based illnesses Air quality monitoring of key settlements

- 7.6 This SA/SEA report accompanies the Site Allocations Submission DPD. Examination of the DPD is due to commence in 2010 with final adoption scheduled for 2011. The SA/SEA Report will form part of the evidence base for the DPD.

Sustainability SA/SEA Statement

- 7.7 The SA/SEA guidance notes that LPAs are required, as part of their adoption statement, to outline how they have taken the findings of the SA into account and how sustainability considerations have been integrated into the DPD. A Sustainability SA/SEA Statement will be produced alongside the final adopted plan.

APPENDIX I: STATEMENT ON COMPLIANCE WITH THE SEA DIRECTIVE & REGULATIONS

- I.1 *An outline of the contents, main objectives of the plan and relationship with other relevant plans:*

Section 2 of this SA Report sets out the contents and main objectives of the Site Allocations DPD. The relationship with other relevant plans is summarised in Section 4 of this report. The plans and programmes review can be found at:

<http://www.centralbedfordshire.gov.uk/environment-and-planning/planning/ldf/ldf-north-area/north-ldf-core-strategy-dev-mngmnt.aspx>

- I.2 *The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan:*

Section 4 of this SA Report summarises the relevant baseline conditions for sustainability (including the state of relevant environmental aspects) in the former Mid Beds area. The detailed baseline, including the likely evolution of current conditions ('trends') can be found at:

<http://www.centralbedfordshire.gov.uk/environment-and-planning/planning/ldf/ldf-north-area/north-ldf-core-strategy-dev-mngmnt.aspx>

- I.3 *The environmental characteristics of areas likely to be significantly affected:*

- Where relevant and available, information regarding particular areas has been included in the baseline. Further information is available in Council's Core Strategy Document and in consultation material provided on Council's website:
<http://www.talktocentralbedfordshire.co.uk/>

- I.4 *Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance:*

- Section 4 of this SA Report summarises existing sustainability problems (including environmental problems) for the plan area.

- I.5 *The environmental protection objectives relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation:*

- The Plans and Programme Review, Appendix II of the Core Strategy SA Report provides the summary of objectives for sustainability in the Mid Beds area (including environmental objectives), and the implications of these objectives for the LDF.

- 1.6 *The likely significant effects on the environment including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects:*
- The SA Framework of objectives presented in Section 4 of this SA Report shows which of the issues listed by the SEA Regulations are progressed by which SA Objectives. This assures that all of the issues are considered during the assessment of each part of the Site Allocations DPD.
 - The likely sustainability effects of implementing the Site Allocations DPD (including environmental effects) is summarised in Section 5, 6 and 7 of this SA Report, and detailed in Appendix II, III, IV and V. Where possible, an indication of whether effects are likely to be cumulative, short, medium and long-term etc has been included.
- 1.7 *The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan:*
- Where significant adverse effects, including environmental effects, have been predicted, the SA has sought where possible to identify means of offsetting these effects. These are provided in the form of recommendations in the appraisal matrices (Appendix II, III, IV and V) and summarised in Sections 5-7 of this SA Report.
- 1.8 *An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties encountered in compiling the required information:*
- Justification for the different options considered for the Site Allocations DPD is provided in Section 6 and Appendix III. Details of how the assessment was undertaken are provided in Section 3 of this SA Report (appraisal method), and difficulties encountered in compiling information are summarised in Section 4 of this Report.
- 1.9 *A description of the measures envisaged concerning monitoring:*
- Measures envisaged concerning the monitoring of the sustainability effects (including environmental effects) of implementing the DPD are provided in Section 8 of this report.

I.10 *A non-technical summary of the information provided under the above headings:*

- The non-technical summary is set out at the beginning of this report in Section 1.

APPENDIX II: SA OF ALTERNATIVES- SA Compatibility Analysis- Draft Site Selection Criteria and SA Objectives**Key to Appraisal:**

++	Strongly Compatible - Exclusionary or Discretionary Criteria will considerably progress the sustainability objective
+	Compatible - Exclusionary or Discretionary Criteria will progress the sustainability objective to an extent
-	Incompatible - Exclusionary or Discretionary Criteria will conflict with the sustainability objective to an extent; mitigation possible
--	Strongly Incompatible - Exclusionary or Discretionary Criteria will conflict considerably with the sustainability objective; mitigation difficult and/or expensive
?	Uncertain - Effect unclear, it is not possible to tell how the Exclusionary or Discretionary Criteria will affect the sustainability objective
0	Not relevant to SA Objective - the Exclusionary or Discretionary Criteria will not affect the sustainability objective

	SA Objectives																
Stage 1: Exclusionary criteria	1 Building Community	2 Infrastructure	3 Housing	4 Economy/employ	5 Transport	6 Health	7 Water	8 Waste	9 Climate Change	10 Energy	11 Sustain construct	12 Biodiversity	13 Landscape	14 Built environ	15 Historic / heritage	16 land and soils	17 Pollution
1. Is the scale of the proposed development contrary to the Core Strategy?	+	+	+	0	+	+	+	+	0	0	0	0	++	+	?	?	?
2. Is the site within the Green Belt?	0	0	0	0	+	0	0	0	+	+	0	0	++	0	0	++	0
3. Is the site within the open countryside, i.e. disconnected to an existing settlement or located some distance away?	0	0	0	0	++	0	0	0	+	+	0	0	++	0	0	++	+
4. Is the site proposal for less than 4 dwellings?	0	0	++	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Is the site identified in the Minerals and Waste Local plan and	0	0	0	+	0	0	0	++	0	0	0	0	0	0	0	0	0

emerging LDF?																	
6. Is the site wholly or predominantly within flood zone 3?	+	+	0	0	0	+	++	0	+	0	0	0	0	0	0	0	0
7. Is the site likely to have a significant negative effect on a site of international national biological or geological importance?	0	0	0	0	0	0	+	0	0	0	0	++	0	0	0	0	0
8. Is the site likely to have a significant negative effect on a nationally important archaeological site or monument or a nationally or internationally important historical site?	+	0	0	0	0	0	0	0	0	0	0	0	0	++	++	0	0
<p>Summary: In Stage 1 exclusionary criteria are used in a constraints-based approach- this allows sites that are considered to be unsustainable on key criteria to be ruled out early in the process. The SA of these criteria found that:</p> <ul style="list-style-type: none"> Sites that may be ruled out include those that are considered contrary to the Development Strategy in the Core Strategy, those within the green belt or those in the open countryside. These criteria are strongly compatible with the SA objectives on landscape and land use, and compatible with objectives relating to transport, climate change and energy. The criteria relating to proposals being greater than 4 dwellings is strongly compatible with the housing objective, as developments over this size are required under the Core Strategy to contribute to affordable housing (i.e. the affordable housing threshold is 4 dwellings) . Criteria 5 ensures that waste management and minerals sites are safeguarded, and is compatible with the SA objectives on waste and employment. Criteria 6 aims to minimise the health, community and infrastructure costs of flooding, and criteria 8 and 9 ensure that developments likely to have a significant negative effect on sites of biodiversity/geological or archaeological/historic significance are excluded from the site selection process. This is strongly compatible with the SA objectives on biodiversity and heritage. <p>In summary, the Stage 1 exclusionary criteria are considered fit for purpose and will assist in minimising the sustainability effects of new development whilst also enabling the removal of sites that would be contrary to the Core Strategy.</p>																	

	SA Objectives																
Stage 2: Exclusionary? criteria	1 Building Community	2 Infrastructure	3 Housing	4 Economy/employ	5 Transport	6 Health	7 Water	8 Waste	9 Climate Change	10 Energy	11 Sustain construct	12 Biodiversity	13 Landscape	14 Built environ	15 Historic / heritage	16 land and soils	17 Pollution
Previously Developed Land	+	0	0	+	+/-	+	0	0	+	+	0	?	++	?	?	+	-/+
Schools - Sust. transport accessibility	+	++	0	0	++	+	0	0	++	++	0	0	0	0	0	0	+
Employment- Sust. transport accessibility	+	+	0	++	++	+	0	0	++	++	0	0	0	0	0	0	+
Healthcare - Sust. transport accessibility	+	++	0	0	++	++	0	0	+	+	0	0	0	0	0	0	0
Local Shopping retail/shopping facilities - Sust transport accessibility	++	++	0	+	+	+	0	0	++	++	0	0	0	0	0	0	+
Is the site vulnerable to flooding?	+	+	0	0	0	+	++	0	+	0	0	+	0	0	0	0	0
How would the proposal affect the surrounding landscape?	0	0	0	0	0	0	0	0	0	0	0	0	++	0	0	+	0
Site Access- can site be accessed safely and conveniently?	+	++	0	0	++	+		0	0	0	0	0	0	0	0	0	0
Availability- any known ownership/legal constraints that could hinder deliverability?	0	+	++	+	0	0	0	0	0	0	0	0	0	0	0	0	0
Would site result in loss of important land uses- e.g. employment, public open space?	++	+	0	++	0	+/?	0	+/?	0	0	0	0	+/?	0	0	+	0
<p>Summary: The sites that have successfully passed through the stage 1 exclusionary criteria will be subject to a 'traffic-light' assessment against a range of criteria, with sites scoring green for 'good-excellent', orange for 'fair' and red for 'poor'. (note: this has since been updated to a weighting system, see note at end of this appendix)</p> <p>The SA of these criteria found that:</p> <ul style="list-style-type: none"> A small number of potential incompatibilities and uncertainties were found, relating to the criteria on previously developed land. The development of previously developed sites (which are usually located in existing settlements) has the potential to lead to increased localised air and noise pollution and increased congestion in existing settlements. Previous developed sites can also provide valuable habitat which may be lost if they are developed. However these impacts can generally be mitigated, and the sustainability benefits of returning these sites to productive use are considered to outweigh the disadvantages. The stage 2 exclusionary criteria are generally strongly compatible with key SA objectives on communities, infrastructure, transport, climate change and energy. SA objectives on waste and sustainable construction are not represented, however these could be incorporated into any development and at this strategic stage it is not possible to assess sites for their performance as further design details would be required. Whilst effects on heritage and the built environment are difficult to assess at this strategic level, perhaps there should be a criteria on impacts on heritage, whereby a potential for impact is at least 																	

flagged up at this stage of assessment.

- It is suggested that biodiversity may be better addressed in this stage, through inclusion of a criteria on the impact of development on habitats and species, including County Wildlife Sites and Local Nature Reserves. Whilst Stage 1 criteria address biodiversity impacts on sites of national or international designation, Stage 2 (or 3) would be an appropriate place for consideration of likely adverse effects on biodiversity of County or Local significance.
- It is considered that SA objective 16 (land and soils) may be better addressed through including a criteria on agricultural land classification, whereby land of best and most agricultural value scores a red (grade 1 and 2), and an orange (grade 3a).
- SA objective 17 (Pollution) could be better addressed through consideration of Air Quality Management Areas.

	SA Objectives																
Stage 3: Discretionary criteria	1 Building Community	2 Infrastructure	3 Housing	4 Economy/employ	5 Transport	6 Health	7 Water	8 Waste	9 Climate Change	10 Energy	11 Sustain construct	12 Biodiversity	13 Landscape	14 Built environ	15 Historic / heritage	16 land and soils	17 Pollution
Previously Developed Land:	0	0	0	0	+/-	+	0	0	+	+	0	?	++	?	?	+	-/+
Schools – Sustainable provision	++	++	0	0	++	0	0	0	++	++	0	0	0	0	0	0	+
Employment (1) - Sustainable provision	++	++	0	++	++	0	0	0	++	++	0	0	0	0	0	0	+
Healthcare – Sustainable provision	++	++	0	0	+	++	0	0	+	+	0	0	0	0	0	0	0
Local retail/shopping facilities - Sustainable provision	++	++	0	++	++	+	0	0	++	++	0	0	0	0	0	0	0
Community Facilities	++	++	0	+	++	+	0	0	+	+	0	0	0	0	0	0	0
Can adequate mitigation be made to floodable area?	+	++	0	+	0	+	++	0	+	0	0	0	0	0	0	0	0
Site Access- can site be safely and conveniently accessed?	0	+	0	0	++	+	0	0	0	+	0	0	0	0	0	0	+
Accessibility – Does site location encourage sustainable form of movement/transport to facilities?	++	0	0	0	++	+	0	0	++	++	0	0	0	0	0	0	++
Availability (1) - any known ownership/legal constraints that could hinder deliverability?	0	++	++	+	0	0	0	0	0	0	0	0	0	0	0	0	0
Availability (2) - any other constraints, e.g. contamination constraints; difficulty in the provision of access; that could hinder deliverability?	+	0	++	+	0	+	0	0	0	0	0	0	+	0	0	+	+
Would site result in loss of important land uses- e.g. employment,	++	++	+	++	0	+	0	0	0	0	0	0	+	0	0	0	0

public open space, housing unit?																	
What is the type of benefits to the community (indicate by a tick under number)?	++	++	++	++	0	++	0	0	0	0	0	0	+	0	0	0	0
Sustainable development - Is site able to help deliver the infrastructure and facilities needed in settlement?	++	++	0	++	0	+	+	+	0	0	0	0	0	0	0	0	0
<p>Summary: Where sites have successfully passed through the stage 2 criteria they will be subject to a more detailed appraisal for stage 3. The SA of these criteria found that:</p> <ul style="list-style-type: none"> These criteria are particularly related to the infrastructure capacity of sites, and are strongly compatible with the SA objectives on building communities, infrastructure, and economy. Because the criteria also aim to reduce the distance travelled to access schools, employment, healthcare, retail and community facilities, the criteria are also generally strongly compatible with SA objectives on transport, climate change and energy, and to a lesser extent, pollution (noise, air and light pollution). Heritage/ the built environment is not represented at either stage 2 or 3, but has been considered at the stage 1 exclusionary stage. Whilst it may be difficult to assess effects at this strategic stage (for example, adverse effects on a heritage conservation area are likely to be dependent on site-level design detail), the potential for effects should be considered. Again biodiversity is not covered at this stage (refer comments in the appraisal in stage 2). The criteria refer to commuting distance- this needs to be defined. SA objectives on waste and sustainable construction are not represented, however these could be incorporated into any development and at this strategic stage cannot be assessed. There are some concerns relating to the scoring of Stage 3- as this may lead to misleading or skewed results when scores are tallied for each site. The determination of a weighting for each factor is also a subjective process, and is contestable. Our preference would be to continue with a traffic light system, as for Stage 3. <p>Overall, this stage is considered to provide the necessary detail to consider whether the final shortlist of sites is suitable for development from a planning and sustainability perspective. The SA of the final shortlist of sites will provide an independent review of this work, including consideration of cumulative effects.</p> <p>Update: November 2009. Since the SA work of the emerging method was undertaken in April, Council have taken on board the recommendations made by Enfusion including a category on Protection of the environment that now covers impacts on heritage and biodiversity. The final assessment framework also includes new criteria in Stage 3 relating to the quality of agricultural land and Stage 2 includes better definition of commuting distances. Comments on Air quality may now be considered under Stage 3. Therefore the suggestions raise throughout the Sustainability Appraisal process regarding the criteria have been considered in Council's final assessment framework.</p> <p>Originally the SA recommended a traffic-light approach to stage 2 assessment, and since this appraisal was undertaken in April, this approach has been modified to include a weighting approach whereby different criteria were given higher consideration if considered important by the community and statutory consultees. A consultation was undertaken in September 2009 to determine which criteria should rate higher. The issues rated highest were:</p> <p>1. Using previously developed land over greenfield land.</p>																	

2. Protection of landscape

3. Protection of wildlife

4. Close to a school

5. Close to places of employment.

Other categories given a high rating were: Proximity to local shops and bus services/bus stop.

This approach has enabled council to shortlist those sites that perform best under these important criteria (however with landscape and wildlife difficult to score, these impacts have been considered as a final check at Stage 3). From a Sustainability perspective, this approach is supported, enabling key sustainability issues to be identified, and ensuring that the most sustainable sites (and those more likely to receive the support of Statutory consultees and the community) will be selected during the appraisal process.

APPENDIX III: SA OF STRATEGIC SITES

Key to Significance level:	
DG	No strategically-significant sustainability constraints and development could provide sustainability benefits at a strategic level
LG	No strategically-significant sustainability constraints and development acceptable at a strategic level
?	Uncertain effect
O	Potentially strategically-significant sustainability issues; mitigation and /or negotiation possible
R	Absolute strategically-significant sustainability constraints to development.
Appraisal Framework: The following SA objectives have been excluded from the appraisal as all sites are expected to meet these sustainability objectives, irrespective of site location. 3 Housing: Not applicable- all sites required to achieve this 6 Health: Covered under Objectives 5: transport & 1: Building communities 8 Waste: Not applicable- all sites required to achieve this 10 Energy: Not applicable- all sites required to achieve this (note: some sites maybe more suitable for renewable- covered in SA objective 9. 11 Sustainable Construction: Not applicable- all sites required to achieve this 14 Built Environment: Not applicable- all sites required to achieve this	

STRATEGIC SITES IN MAJOR SERVICE CENTRES

Flitwick H077/E62: Land at Steppingley Road and Frognall Road Mixed Use 500 dwellings and B1 (office/industrial) H113 Mixed use development, 85 dwellings, employment, retail and leisure use with transport interchange.		
SA Objective		Additional comments
1. Building Communities	LG	Mixed development site has good potential to provide a range of housing sizes and spaces for the development of social networks, positive medium and longer term effects.
2. Infrastructure	LG	Good potential to deliver GI at this site, with positive effects against this SA objective, and wider biodiversity objectives.
4. Economy and Employment	LG	H077 and E62 progress this SA objective by contributing to employment floorspace through dedicated provision and providing opportunities for employment that are well related to homes as part of a mixed development. Positive, cumulative effects.
5. Transport	O	The sites are adjacent to a major settlement and opportunities exist to improve access by foot and cycle. Development at H077, is likely to result in significant increases in traffic movements on local highway network, potential for longer term negative effects against this SA objective, mitigation required (improved public transport, travel plans etc). Development at H113, supported by proposed transport interchange and proximity to rail connections, potential for positive effects where efficiencies in transport measures introduced.
7. Water	LG	Capacity available for waste water treatment/ network, development not at risk from flooding
9. Climate Change	?	All new developments have the potential to incorporate energy efficiency in building design and use. Identified potential for traffic increases at this site (SA Objective 5) will require mitigation measures to ensure that the contributions from emissions is minimised.
12. Biodiversity	LG	There are opportunities for this mixed development site to deliver multi-functional green space GI, which should be promoted as part of any development to ensure potential recreational pressures on nearby SSSI and wildlife sites are appropriately managed.
13. Landscape	LG	No strategically significant effects on landscape.
15. Historic/Cultural Heritage	LG	No strategically significant effects on historic or cultural heritage.
16. Land and Soils	LG	Site capable of supporting higher density development if appropriate.
17. Pollution	?	Potential for negative effects as a result of increased air pollution arising during construction and operational phases of the developments at H077 and E62. Measures to promote sustainable transport required as part of mitigation package.
Summary: These sites together provide opportunities for well related mixed development that supports SA objectives to build sustainable communities and promote economic buoyancy by providing a mix of housing and employment. No significant, strategic negative effects for water, landscape, land and soils or biodiversity are identified and by ensuring suitable levels of green infrastructure as part of any development, positive effects for biodiversity objectives and wider social objectives are also possible in the medium and longer term. There is the potential for negative effects to arise in relation to transport through increased car usage, the effects may be cumulative and also result in uncertainties as to the likely effects on		

Flitwick

**H077/E62: Land at Steppingley Road and Frognall Road Mixed Use 500 dwellings and B1 (office/industrial)
H113 Mixed use development, 85 dwellings, employment, retail and leisure use with transport interchange.**

related climate change and pollution objectives. Mitigation measures, such as Green Travel Plans are recommended and should be focused on addressing these potentially significant effects (e.g. reducing private car mileage, developing cycle routes, promoting improved public transport and accessibility). Opportunities to make best use of existing rail facilities at the mixed use site should be promoted, and the proposed transport interchange provides support for improved public transport facilities.

Biggleswade H347 Land at Potton Road 330 dwellings		
SA Objective		Additional comments
1. Building Communities	LG	Housing site has good potential to provide a range of housing sizes and spaces for the development of social networks, positive medium and longer term effects.
2. Infrastructure	?	Good potential to deliver GI at this site, with positive effects against this SA objective, and wider biodiversity objectives. Some uncertainty as to whether this site can deliver facilities (shops) to support growing community.
4. Economy and Employment	LG	This site does not include provision for employment floorspace, however it does not lead to a loss of employment land. No significant sustainability constraints against this objective.
5. Transport	O	Poor transport links and in particular pressures on the local road network are an identified issue at this site, and its location on the outskirts of the settlement does not support reduced car use, potential for negative effects against this SA objective. Mitigation in the form of improved public transport and access by means other than car (e.g. cycle lanes) should be required in order to reduce car dependency.
7. Water	LG	This site is not identified as being at risk from flooding. Any development is identified as requiring additional water capacity and infrastructure, including measures to promote sustainable water management which should be in place prior to development.
9. Climate Change	?	All new developments have the potential to incorporate energy efficiency in building design and use. Identified potential for traffic increases at this site (SA Objective 5) will require mitigation measures to ensure that the contributions from emissions are minimised.
12. Biodiversity	LG	No significant effects identified against this objective, opportunities exist to incorporate GI.
13. Landscape	LG	No strategically significant effects on landscape.
15. Historic/Cultural Heritage	LG	No strategically significant effects on historic or cultural heritage.
16. Land and Soils	LG	Site capable of supporting higher density development if appropriate.
17. Pollution	?	Potential for negative effects as a result of increased air and light pollution arising during construction and operational phases of the developments. Measures to promote sustainable transport required as part of mitigation package.
<p>Summary:</p> <p>This site provides good potential for a range of housing types, and its contribution to community and economy SA objectives would be improved through the inclusion of facilities (shops, school etc). No significant, strategic negative effects for water, landscape, land and soils or biodiversity are identified and by ensuring suitable levels green infrastructure as part of any development (for example by maintaining and promoting paths and access points through the development), positive effects for biodiversity objectives and wider social objectives are also possible in the medium and longer term.</p> <p>The location of this site on the periphery of the existing settlement envelope means that there is potential for a significant increase in road traffic that would require appropriate/ strong mitigation measure to reduce dependence on car based transport (e.g. improved public transport services, safe walking and cycling routes etc). The potential for the effects of increased traffic on the environment to be cumulative (e.g. in terms of aerial pollution locally and cumulatively in relation to climate change objectives) will require that mitigation measures for identified strategically significant effects relating to transport are addressed prior to development.</p>		

Biggleswade E11/E67 Land at Stratton Farm Employment B2 and/or B8 (10ha)		
SA Objective		Additional comments
1. Building Communities	LG	No strategically significant effect against this objective. Minor positive effects locally and more widely from the development of commercial opportunities.
2. Infrastructure	LG	Opportunities at this site to ensure that GI is integrated as part of the development.
4. Economy and Employment	LG	Significant positive effects, progressing this objective in the medium and long term through the provision of employment floorspace, opportunity to enhance existing employment space through complementary business/ commerce.
5. Transport	O	Development at this site has the potential to significantly increase traffic on the local road network, with negative effects against this objective. Mitigation should include improvements to local network and requirements for business to develop Green Travel plans etc to address potential traffic increases.
7. Water	LG	No flooding risks identified at this site, although additional capacity will be required to ensure that water can be supplied in a sustainable manner.
9. Climate Change	?	Increased traffic, in particular on an industrial/commercial scale has the potential to contribute significantly to local increases in aerial pollutants. A requirement for efficiency measures in design and build of new infrastructure, should also extend to the consideration of transportation issues relating to new business developments.
12. Biodiversity	LG	No strategically significant effects on landscape.
13. Landscape	LG	No strategically significant effects on historic or cultural heritage.
15. Historic/Cultural Heritage	?	Site identified as proximal to Scheduled Ancient Monument by English Heritage. Mitigation measures required to ensure no adverse effects on setting or integrity of site.
16. Land and Soils	LG	No strategic significant effect identified, loss of agricultural land.
17. Pollution	?	Potential for increases in air, noise and light pollution from construction and operational phases for existing adjacent settlement from this development – negative effects. Mitigation possible through transport measures (SA objective 5) and phasing/ operational restrictions as appropriate.
<p>Summary:</p> <p>This site progresses key SA objectives for employment and there are direct and indirect benefits for building sustainable communities through increased employment opportunities in the area. The allocation extends an existing business park and whilst the development will make use of greenfield agricultural land, there are no identified significant negative effects for biodiversity, landscape or water SA objectives.</p> <p>There is potential for an increase in road traffic at this site, which may be significant both locally and cumulatively for the surrounding road network. Mitigations (Green travel plan, infrastructure improvement, phasing of development etc) will be required to address the negative effects associated with increased traffic impacts including local level pollution issues and wider climate change impacts both in the immediate and longer term.</p>		

Sandy E38 Land North of Beamish Close- Employment B1, B2 and B8 (5ha) H295, H240, H276			
SA Objective	H295 H240/ H276	E38	Additional comments
1. Building Communities	LG	LG	Delivery of employment opportunities and mixed development (H276) progresses this objective, with potential for significant positive effects through the provision of a range of housing types and associated facilities.
2. Infrastructure	LG	LG	All development have potential to progress this objective by incorporating GI as part of development/
4. Economy and Employment	LG	DG	Developments (E38 in particular) contribute directly to aims of this SA objective to provide employment floorspace and local job opportunities significant strategic positive effects, medium to long term.
5. Transport	?	O	H295, 240, 276 are well located with the existing settlement envelope, whilst E38 is situated outside the current settlement boundary. Potential for increased road traffic and congestion as a result of increased car use and dependency. Sites well positioned for rail travel/ use, therefore mitigation should focus on best use of existing and enhanced public transport services.
7. Water	LG	LG	The proposed sites are not identified as being at risk from flooding. All development can incorporate sustainable water use and there are no significant identified constraints (E38 will require offsite enforcement to the water network).
9. Climate Change	?	?	All developments can support energy efficiency measures, some uncertainty, particularly in relation to settlement edge development (E38) as to whether increases in traffic may result in a local and cumulative increase in aerial emissions. Mitigations proposed (SA Objective 5) should be required part of development.
12. Biodiversity	LG	LG	No strategic significant effects identified.
13. Landscape	LG	LG	No strategic significant effect identified.
15. Historic/Cultural Heritage	LG	LG	No strategically significant effects on historic or cultural heritage.
16. Land and Soils	LG	LG	H240, 276 progress this SA Objective positively by focusing development on previously developed land.
17. Pollution	?	?	Potential for increases in air, noise and light pollution from construction and operational phases for existing adjacent settlement areas (particularly those adjacent to H295, 240 and H276) from this development – negative effects. Mitigation measures during construction (phasing, site management plans) and operational phases (travel plans, sustainable drainage systems etc) will be required.
Summary: The proposed sites provide good progression for SA objectives of economy and employment and building communities, through the provision of employment space, mixed development and well located housing that can provide a range of size and tenure. Cumulative positive effects are likely against these objectives. Whilst the potential for transport increases, including dependency on car travel is noted (with commensurate negative effects for transport and climate change & pollution SA objectives) there are clear opportunities to offset the negative			

Sandy E38 Land North of Beamish Close- Employment B1, B2 and B8 (5ha) H295, H240, H276			
SA Objective	H295 H240/ H276	E38	Additional comments
impacts identified through the promotion of rail use and improved public transport facilities. No long term strategically significant negative effects against these objectives.			

Wixams North Marston Vale Contingency Allocation H278/ E14 Land South of the Wixams 1000 dwellings as part of mixed use development (inc. employment, leisure, education and neighbourhood)		
SA Objective		Additional comments
1. Building Communities	DG	The development supports SA objectives are delivering balanced communities with a range of housing size and tenure that includes paces for facilities/ social networks, e.g. community halls, education facilities, recreational facilities.
2. Infrastructure	LG	Strong potential for this site to deliver GI in progression of this SA objective, sustainability strategies for this development should recognise and promote the role of GI is providing healthy living spaces.
4. Economy and Employment	DG	Site proposal progresses this SA objective to deliver employment floorspace which in conjunction with housing provision provides sustainable live/work environments for existing and new local communities.
5. Transport	LG	Potential for increases in road based transport at this site given its location on the outside of existing developments, however proposal for a sustainable development (including e.g. connections to existing rail network and development of walking, cycling facilities) have good potential to progress this SA objective and provide long term positive and cumulative effects locally and more widely.
7. Water	LG	No strategic effects for flooding as site boundaries have avoided flood-prone area. All development on the site has the potential to have positive effects against this SA objective through the promotion of sustainable water use in design and through sustainable urban drainage systems.
9. Climate Change	LG	No strategic significant effects for climate change.
12. Biodiversity	LG	No strategic significant effects for biodiversity.
13. Landscape	LG	No strategic significant effects for landscape.
15. Historic/Cultural Heritage	LG	No strategic significant effects for historic and cultural heritage.
16. Land and Soils	LG	Site predominantly greenfield/ agricultural, therefore some loss of valued land, no strategic significant effects against this objective.
17. Pollution	LG	All new development has the potential during construction and operational phases to result in increased noise, air, light and water pollution. Mitigations to avoid local and wider negative effects (phasing, travel plans etc) should be incorporated in development proposals.
Summary: This site provides strong progression for the SA objectives on communities and economy and employment through the delivery of a mixed housing and employment opportunities. There are no strategic significant negative effects against key SA objective of climate change, pollution and biodiversity. Potential for positive long term cumulative effects, in particular for community and employment objectives through expansion of mixed use development.		

MINOR SERVICE CENTRES

Cranfield E82 Land west of University Way and Wharley Lane, Wharley End, Cranfield High Quality Business Units potentially for research and development uses		
SA Objective		Additional comments
1. Building Communities	LG	No significant negative effects against this object. Provision of employment land, including potential research and development uses may promote increased knowledge based employees. Positive effects for community development.
2. Infrastructure	LG	Site has potential to incorporate green infrastructure, as part of development.
4. Economy and Employment	DG	Site contributes directly to this objective with the potential to provide for a range of skills based employment through construction and operational phases. Promotion of knowledge based industries supports wider business opportunities, positive, cumulative long term effects.
5. Transport	?	There is significant potential for a development at this site to increase traffic movement locally and in further afield, leading to negative effects against this SA Objective. Mitigations are possible and should include: enhancement of the public transport network, green travel plans, the provision of a cycle route and safe pedestrian access for employees at this location and the wider community.
7. Water	LG	This site is not at risk from flooding, and all developments have the potential to incorporate sustainable water use. This site does however, have identified limited water capacity and there will be a requirement for substantial reinforcement of the local network to ensure sustainable supply. No long term significant effects.
9. Climate Change	LG	Issues identified in relation to SA objective 5 can be addressed by mitigation and the contribution to climate change emissions at this site is not appraised as significant, given in addition the focus on high quality business unit that will not generate freight traffic post construction phase.
12. Biodiversity	LG	No strategic significant effects for biodiversity.
13. Landscape	LG	No strategic significant effects for landscape.
15. Historic/Cultural Heritage	LG	No strategic significant effects for historic and cultural heritage.
16. Land and Soils	LG	Site makes use of previously developed land and is capable of supporting higher density development, supporting the aims of this SA objective. Positive effects.
17. Pollution	LG	Potential for short term effects locally (air, noise, light) during construction phases, long term effects not assessed as significant. Mitigations should include sustainable drainage systems.
Summary: <p>This site provides good support for and progression of key sustainability objectives – in particular for employment and the economy s. The reuse of previously developed land and the proximity to existing development with related uses, supports wider objectives for promoting sustainable communities, and core environmental objectives relating to land and soils.</p> <p>There are no strategic significant effects identified for biodiversity and landscape objectives and mitigation measures can address minor issues noted in relation to water and those relevant to transport.</p>		

Arlesey Site H293: West and East to High Street, Arlesey (1000 Dwellings)		
SA Objective		Additional comments
1. Building Communities	LG	Positive effects and progression against this SA objective, site capable of providing a range of housing size and tenure to promote balanced communities and support the provision of facilities. Current lack of services suggests development requires integration of facilities to ensure long term positive effects.
2. Infrastructure	LG	No significant effects. Development has potential to incorporate GI and provision of infrastructure should be phased to ensure no unnecessary negative impacts on local networks/ community.
4. Economy and Employment	LG	No significant effects for this SA objective. Potential for improved progression by the incorporation of some mixed use development.
5. Transport	O	Likelihood of increased traffic and associated car dependency with negative effects against this SA objective (e.g. congestion on local roads). Mitigation measures are required to ensure that sustainable travel solutions are available (public transport improvements, links to local rail services, cycle routes, safe pedestrian routes).
7. Water	LG	No significant effects for water. Development not identified as at risk from flooding, water can be sustainably supplied to site although treatment capacity will require reinforcement to support development.
9. Climate Change	?	Some uncertainty in relation to climate change effects. All development can incorporate energy efficiency measures however, emissions arising from transport potential to be cumulative (car dependency a key issue in Bedfordshire) therefore avoidance of negative effect dependant on effective mitigation measures in relation to transport issues (SA Objective 5).
12. Biodiversity	LG	No strategic significant effects for biodiversity, however development should in line with NE recommendation ensure that multifunctional green space and habitat corridors are maintained in support of local biodiversity.
13. Landscape	LG	No strategic significant effects for landscape, potential effects on local character from development should be mitigated.
15. Historic/Cultural Heritage	LG	No strategic significant effects for historic and cultural heritage.
16. Land and Soils	LG	No strategic significant effects for land and soils.
17. Pollution	LG	No strategic significant effects for pollutions issues, developments should incorporate environmental management measures as standard during construction phase and all developments can incorporate mitigations (sustainable drainage systems).
Summary: <p>There are positive effects both long term and cumulative in relation to the SA 'Building communities' objective given the potential of the site to contribute a mixed profile of housing. To ensure wider longer term benefits, in particular for the economy and employment, it may be necessary to incorporate additional facilities and local infrastructure improvements into development proposals.</p> <p>Mitigation of minor impacts on biodiversity and landscape should also be addressed through the provision of GI and habitat corridors. The potential for significant negative effect against transport SA objectives, both in the short term and cumulatively over time, should be addressed through a package of mitigation measures (road infrastructure improvements and importantly sustainable travel options).</p>		

Arlesey Site E12a: Land at Chase Farm, Arlesey (396 dwellings and B1 (Offices and Light Industrial) around 5 - 10 Ha)		
SA Objective		Additional comments
1. Building Communities	LG	Large site with potential to provide range of facilities alongside employment, potential to progress this objective with positive effects in the longer term by providing a variety of accessible employment opportunities.
2. Infrastructure	LG	No strategically significant effects, site will require provision of infrastructure to be phased with development, and opportunities exist to provide substantial, integrated GI on a site of this size.
4. Economy and Employment	DG	Direct support for this SA objective through contributions to employment floorspace with the potential to provide a diverse range of quality employment opportunities. Long term, positive effects.
5. Transport	O	Possibility for increased traffic, in particular on a commercial scale at this site, with negative effects against the objective to reduce dependence on the car. Clear opportunities for mitigation at this site to as employment space is well related to existing centres of population, through the provision of high quality cycle and pedestrian networks.
7. Water	LG	No strategically significant effects at this site, water supply networks are identified as requiring reinforcement locally to support future development.
9. Climate Change	?	Some uncertainty in relation to climate change effects. All development can incorporate energy efficiency measures however, emissions arising from transport potential to be cumulative (car dependency a key issue in Bedfordshire) therefore avoidance of negative effect dependant on effective mitigation measures in relation to transport issues (SA Objective 5).
12. Biodiversity	LG	No strategically significant effects. Opportunities given scope of the site to retain existing habitats and promote the integration of multifunctional green spaces (e.g. SuDs) to support local biodiversity interests.
13. Landscape	LG	No strategically significant effects for landscape.
15. Historic/Cultural Heritage	LG	No strategically significant effects for historic and cultural heritage.
16. Land and Soils	LG	No strategically significant effects for land and soils.
17. Pollution	?	Potential for increases in air, noise and light pollution from construction and operational phases given proximity to existing developments. Mitigation measures during construction (phasing, site management plans) and operational phases (travel plans, sustainable drainage systems etc) will be required.
Summary: <p>This site performs well against SA objective for the employment, economy and the community through the provision of employment space that can provide a range of opportunities in a location that is accessible to location populations. Cumulative effects with housing related development in particular likely to be positive. No strategic significant effects are identified for key environmental SA objectives (water, biodiversity, land and soils, landscape) and there is potential for retention and enhancement of local biodiversity interest through the incorporation of multifunctional greenspace/ GI throughout the development.</p> <p>Potential negative effect relate primarily to transport issues and the possibility of increased road traffic with cumulative effects locally (e.g. on major A roads and nearby motorway junctions). These cumulative effects may become longer term and therefore mitigation packages will be required to provision suitable alternatives (cycle, pedestrian, public transport) to minimise local pollution effects and potential contributions to wider climate change related emissions.</p>		

APPENDIX IV: CUMULATIVE EFFECTS ASSESSMENT – INDIVIDUAL SETTLEMENTS

Key to Significance level:	
DG	No strategically-significant sustainability constraints and development could provide sustainability benefits at a strategic level
LG	No strategically-significant sustainability constraints and development acceptable at a strategic level
?	Uncertain effect
O	Potentially strategically-significant sustainability issues; mitigation and /or negotiation possible
R	Absolute strategically-significant sustainability constraints to development.
Appraisal Framework: The following SA objectives have been excluded from the appraisal as all sites are expected to meet these sustainability objectives, irrespective of site location. 3 Housing: Not applicable- all sites required to achieve this 6 Health: Covered under Objectives 5: transport & 1: Building communities 8 Waste: Not applicable- all sites required to achieve this 10 Energy: Not applicable- all sites required to achieve this (note: some sites maybe more suitable for renewable- covered in SA Objective 9. 11 Sustainable Construction: Not applicable- all sites required to achieve this 14 Built Environment: Not applicable- all sites required to achieve this	

MAJOR SERVICE CENTRES

Amphill H052 and H083 Land west of Abbey Lane , Housing 410 dwellings E64 Doolittle Mill Phase 2, Employment B1 (office) E68 Doolittle Mill Phase 1, Employment B1 (office)		
SA Objective	LSE	Additional comments
1. Building Communities	DG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	?	Potential in-combination effects from transport increase on local, regional road network.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	Cumulative benefits from designed open space, community woodland.
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: <p>The proposed allocations are well related to existing developments and there are no strategically significant effects in relation to key environmental SA objectives. Community SA objectives are effectively progressed through the provision of housing and services, with the potential for positive, long term cumulative effects.</p> <p>Overall development at Amphill combined with its relative proximity to Flitwick may result in traffic increases that are strategically significant for the area. Mitigation in the form of infrastructure improvements and measures for sustainable transportation (H052 and H083 in particular) will be required to accompany development proposals.</p>		

Flitwick Site Allocation H077/E62		
SA Objective	LSE	Additional comments
1. Building Communities		
2. Infrastructure		
4. Economy and Employment		
5. Transport		
7. Water		
9. Climate Change		
12. Biodiversity		
13. Landscape		
15. Historic/Cultural Heritage		
16. Land and Soils		
17. Pollution		
Summary: <p>No further Cumulative Effects -See SA of Strategic Sites</p>		

Biggleswade H347 Land at Potton Road 330 dwellings E11/E67 Land at Stratton Farm Employment B2 and/or B8 (10ha)		
SA Objective	LSE	Additional comments
1. Building Communities	LG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	?	Potential for cumulative effect locally and more widely through increased reliance on road based, private car transport. Mitigations (public transport, cycle, pedestrian improvements, green travel plans etc)
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	?	Potential cumulative effect, in particular for aerial emissions associated with travel/ traffic growth, mitigations required.
Summary: Cumulatively, the development sites (E11/67), progress key SA objectives for employment and there are direct and indirect benefits for building sustainable communities through increased employment opportunities in the area. The extension of an existing business park and the provision of additional employment land support aims to secure an economically buoyant future for the area. The appraisal has identified that overall the allocations (H347) provide good opportunities for a range of housing types, and there is the potential for positive long term contributions to community and economy SA objectives, although cumulative outcomes would be improved through a greater focus on mixed development and the inclusion of facilities (shops, school etc). Overall, increased development – in particular where sites are on the periphery of the existing settlement envelope, may lead to a significant increase in road traffic that would require appropriate/ strong mitigation measure to reduce dependence on car based transport (e.g. improved public transport services, safe walking and cycling routes etc). The potential for the effects of increased traffic on the environment to be cumulative (e.g. in terms of aerial pollution locally and cumulatively in relation to climate change objectives) will require that mitigation measures for identified strategically significant effects relating to transport are addressed prior to development.		

Sandy H295 Meller Beauty Premises, Sunderland Road 7 dwellings H240/H276 New Road/Station Road 50 dwellings and B1 (office) E38 Land North of Beamish Close- Employment B1, B2 and B8 (10ha)		
SA Objective	LSE	Additional comments
1. Building Communities		
2. Infrastructure		
4. Economy and Employment		
5. Transport		
7. Water		
9. Climate Change		
12. Biodiversity		

13. Landscape		
15. Historic/Cultural Heritage		
16. Land and Soils		
17. Pollution		
Summary:		
No further Cumulative Effects -See SA of Strategic Sites		

Wixams H278/ E14 Land South of the Wixams 1000 dwellings as part of mixed use development (inc. employment, leisure, education and neighbourhood)		
SA Objective	LSE	Additional comments
1. Building Communities		
2. Infrastructure		
4. Economy and Employment		
5. Transport		
7. Water		
9. Climate Change		
12. Biodiversity		
13. Landscape		
15. Historic/Cultural Heritage		
16. Land and Soils		
17. Pollution		
Summary:		
No further Cumulative Effects -See SA of Strategic Sites		

MINOR SERVICE CENTRES

Potton H356/ H237 90 dwellings, allotments and community facilities H075/H199 development of 120 dwellings, B1 employment and community facilities		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Potential wider community benefits from development.
2. Infrastructure	LG	Good potential to incorporate GI providing linkages, including habitat corridors between developments.
4. Economy and Employment	LG	
5. Transport	?	Improvements to access required, uncertain effect particularly in relation to local level traffic increases, potential dependency on car usage.
7. Water	?	Adjacent to floodplain, potential for precautionary mitigation measures (SuDS, incorporation of GI measures).
9. Climate Change	LG	
12. Biodiversity	LG	No strategically significant constraints for biodiversity.
13. Landscape	LG	Potential impacts for existing developments, no strategically significant sustainability constraints.
15. Historic/Cultural Heritage	LG	No strategic significant sustainability constraints for historic environment.
16. Land and Soils	LG	Sites capable of supporting higher density development if appropriate.
17. Pollution	?	Potential for local level increased noise and air pollution for existing settlements from development phases and longer term if transport mitigations not effectively built into development proposals.
Summary: <p>The sites are outside the existing settlement envelope and are adjacent to existing residential settlements and open space/ agricultural land. The developments have the potential to actively progress the sustainability objective for building communities, in particular through the provision of a range of housing types and tenures and by providing space for facilities e.g. community halls. This mixed development (H075/H199) can have positive cumulative effects, providing support for existing services (school, pre-school provision, doctors, leisure facilities) and opportunities for sustained improved service provision, shops etc.</p> <p>Development on greenfield sites should ensure that existing habitat is maintained and given the relationship/ linkages between proposed sites, provide for multifunctional green infrastructure that maintains and supports existing habitat and species corridors as well as providing leisure space for new and existing communities.</p> <p>Changes in transport requirements and the potential for increased road/ car dependency may be strategically significant for this location, and there will be a requirement for improved access and the integration of sustainable transport options as an integral part of the development (e.g. extensions to the proposed national cycle routes, safe pedestrian access, improved public transport options).</p>		

Marston Moretaine		
E09: Land at Moreteyne Farm, Marston Moretaine(employment and residential)		
SA Objective	LSE	Additional comments
1. Building Communities	LG	Potential positive, cumulative effects for local communities through the provision of housing and employment.
2. Infrastructure	LG	
4. Economy and Employment	DG	Improved employment opportunities offer longer term positive effects against this SA objective.
5. Transport	LG	Good local rail connections and links to national cycle route, opportunities to promote sustainable travel options.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	Local level impacts may require mitigation.
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	Site capable of supporting higher density development, should ensure efficient use of land to address loss of Greenfield space.
17. Pollution	LG	
Summary: No strategically significant constraints and development is acceptable at a strategic level. Cumulative effects are potentially positive for communities and employment, as population growth may improve service and facility viability. Transport effects are also potentially positive in the longer term given opportunities to link to established rail connections and promote alternatives to car/ road travel at this location.		

Sheffield H163 development of 52 dwellings H055 development of 120 dwellings, public open space, playing field, areas for conservation, leisure, community hall, H171/ H019 mixed use development 70 dwellings, 2 ha small scale business use and local amenity/ play space		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Development could provide sustainability benefits at a strategic level, in particular provision of mixed use development that provides new facilities and services and improves the viability of existing services (schools, healthcare facility, supermarket etc). Long term cumulative benefits possible.
2. Infrastructure	LG	No strategically significant constraints to development, infrastructure should be appropriately phased. The promotion of appropriate GI, e.g. to accommodate identified water related habitats should be incorporated to ensure positive long term effects.
4. Economy and Employment	LG	No strategically significant constraints, development provide support for existing business and opportunities for new enterprise, potential for long term positive cumulative effects.
5. Transport	?	Potential increased congestion arising from private car use, uncertain effects, with the potential for cumulative negative effect without effectively mitigation (provision of sustainable travel alternatives, development of facilities/ services for new expanded population).
7. Water	LG	No strategically significant constraints for water.
9. Climate Change	LG	No strategically significant constraints for climate change.
12. Biodiversity	LG	No strategically significant constraints, potential for biodiversity enhancement should be incorporated in development
13. Landscape	LG	No strategically significant constraints for landscape, locally relevant mitigation may be necessary to retain setting character.
15. Historic/Cultural Heritage	LG	No strategically significant constraints for historic and cultural heritage.
16. Land and Soils	LG	No strategically significant constraints for land and soils, mitigations or negotiation for loss of agricultural land may be necessary.
17. Pollution	?	Potential for local level increases in pollution (aerial, noise, light) as a result of increased development/ traffic. Uncertain effects.
Summary: Positive long term, cumulative effects for the building communities SA objective are identified. The improvement of services and facilities from mixed development has the potential to support balanced social development for existing and growing communities (e.g. through support for pre-school, school facilities and promoting viability of locally based healthcare centres). No significant sustainability constraints noted in relation to key environmental objectives (biodiversity, landscape, historic cultural heritage), however incremental loss of open/ greenspaces should be mitigated by locally specific/ appropriate measures (e.g. incorporation of GI/maintenance and enhancement of habitats to ensure that the overall cumulative effects of development of positive. Uncertain effects were identified in relation to traffic (and associated pollution effects with regard to H055, H171/H019) require mitigation (sustainable travel measures) to ensure that negative effects are not cumulative, result in wider effects for neighbouring settlements.		

Cranfield

H 104 development of 20-25 dwellings
H040/H133/H322 development of 135 dwellings, a lower school and doctors surgery

Cranfield H 104 development of 20-25 dwellings H040/H133/H322 development of 135 dwellings, a lower school and doctors surgery		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Appropriate scale development that incorporates key services provides long term benefits and positive effects against this SA objective.
2. Infrastructure	LG	No significant strategic sustainability constraints, green infrastructure should be incorporated in all developments, including small scale to enhance development, ensure maintenance of local character.
4. Economy and Employment	LG	
5. Transport	?	Potential increase in local level traffic with possibility of wider cumulative effects, e.g. at motorway junction from other related settlements. Opportunity to support sustainable travel options, e.g. provision of cycle track, wider cumulative benefits of links to national cycle network.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	No significant strategic sustainability constraints, potential for enhancement of biodiversity interest.
13. Landscape	LG	No significant strategic sustainability constraints, development should ensure mitigation addresses locally specific issues to avoid local character impacts.
15. Historic/Cultural Heritage	LG	No significant strategic sustainability constraints for historic and cultural heritage.
16. Land and Soils	LG	
17. Pollution	LG	
Summary: Long term cumulative benefits and improvements to local community facilities (e.g. through the provision of health care facilities H040) from collective proposed developments. Population growth provides support for viability of existing services and the provision of new/ expanded services e.g. library facility, with possible cumulative benefits. No strategically significant sustainability constraints against environmental objectives (water, biodiversity, land & soils). Development of all scales should seek to incorporate GI to provide multifunctional space (e.g. enhance biodiversity interest) and mitigation for local level setting/ landscape impacts where necessary.		

Stotfold H260 development of 85 dwellings H129 development of 9 dwellings		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Long term benefits for the promotion of sustainable communities, through the provision of housing with a range of size/tenure, provide supports for this SA objective. Housing provision potential to improve viability of existing facilities (healthcare, schools).
2. Infrastructure	LG	Development should ensure GI is incorporated.
4. Economy and Employment	LG	
5. Transport	?	Uncertain effects - potential for negative effects (possibly cumulative) where employment located at a distance from settlement centre, encouraging private car use. Sustainable transport measures (green travel plans) should be a feature of development proposals for commerce/ business. Existing

Stoffold H260 development of 85 dwellings H129 development of 9 dwellings		
		national cycle route provides opportunity for integration/ connection to new settlement areas.
7. Water	LG	No strategically significant sustainability constraints. Local level capacity improvements may be required.
9. Climate Change	LG	
12. Biodiversity	LG	No strategically significant sustainability constraints, opportunities for enhancement as part of structured incorporation of green infrastructure, relevant for all scales of development.
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints identified. Effects are potentially positive and long term at this location. Development is acceptable at a strategic level and may provide sustainability benefits for the development of balanced communities and the economy, particularly through the provision of housing & services with enhanced viability for key facilities, leading to positive in the medium and longer term. Cumulative effects with existing/ allocated development proposals also likely to be positive for community and employment objectives at this location.		

Arlesey Site H293: West and East to High Street, Arlesey (1000 Dwellings) Site E12a: Land at Chase Farm, Arlesey (396 dwellings and B1 (Offices and Light Industrial) around 5 - 10 Ha)			
SA Objective	H293 LSE	E12a LSE	Additional comments
1. Building Communities			
2. Infrastructure			
4. Economy and Employment			
5. Transport			
7. Water			
9. Climate Change			
12. Biodiversity			
13. Landscape			
15. Historic/Cultural Heritage			
16. Land and Soils			
17. Pollution			
Summary: No further Cumulative Effects -See SA of Strategic Sites			

LARGE VILLAGES

Blunham Site H091: Trigwell Allen Land adj. 5 Barford Road and r/o 26-40 Station Road & 22-40 The Avenue		
SA Objective	LSE	Additional comments
1. Building Communities	LG	Potential to improve service, facility viability.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: The development of approximately thirty six dwellings is not identified as leading to strategically significant sustainability constraints against key SA objectives. Opportunities exist to improve/enhance service and facilities provision.		

Clifton Site H206: Harbrook Farm, 32 New Road Site H261: Land at New Road		
SA Objective	LSE	Additional comments
1. Building Communities	LG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	?	Identified potential traffic congestions issues arising from increased car dependency.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	?	Potential effects on existing woodland site, effect incorporation of GI and retention of existing habitats required in mitigation.
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	?	Potential effects on use of previously undeveloped land.
17. Pollution	LG	
Summary: The development of approximately 80 dwellings in total (H206, 261) is not identified as leading to strategically significant sustainability constraints with regard to communities and employment and development is acceptable at a strategic level. There is potential for the developments to increase traffic on New Road, which already has congestion issues and effects on land, soils and biodiversity would require mitigation, in particular through the effective incorporation of green infrastructure and habitat retention where possible.		

Clophill Site H042: Dwelling and garden land to the rear of 122a & 124 High Street or land to rear of 95 High Street Site H157: Land adjacent Castle Hill Court, Shefford Road		
SA Objective	LSE	Additional comments
1. Building Communities	LG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	Public transport improvements/ mitigation required to ensure progression against this SA objective.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: The development of approximately twenty two to twenty five dwellings is appropriate for a settlement of this size and no strategically significant sustainability constraints are identified. The development is in an area that is currently poorly served by public transport and whilst minor this development has the potential to increase use of the private vehicle. The nearest train station is over 7km from this settlement.		

Langford H164 development of 44 sheltered homes for the elderly H160 development of 5 dwellings		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Long term positive impacts for balanced communities objectives. Also opportunities to support increased availability of affordable homes.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	Good links to local rail networks.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints at this location, development is acceptable at a strategic level. All sites H164, 160 are located either within or very close to the settlement envelope and relate well to the existing development. The provision of homes for the elderly (H164) provides good support for SA objectives seeking to deliver more balanced communities and these positive effects are likely to be cumulative for the village.		

Any future development would further benefit from the provision of additional services/ facilities to complement housing development and sustainable transport measures should be incorporated as standard to mitigate any potential medium term adverse effects and reduce car dependence.

Maulden Site H218: Land at Moor Lane Site E18: Land adjacent to 29 Clophill Road		
SA Objective	LSE	Additional comments
1. Building Communities	LG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	Incorporation of appropriate measures to support SA objectives to conserve and enhance the landscape.
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints are identified at this site. The development of 15 new dwellings on site H218 has the potential for a minor negative visual impact. The employment allocation E18 is located adjacent to existing employment sites, with the potential for the expansion of local businesses/ synergies with established businesses.		

Meppershall H174 development of 68 dwellings, cemetery, GP surgery, community hall and playing field.		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Long term benefits from new facilities, in particular community based provisions.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	Support and encourage opportunities for enhancement of biodiversity, and maintenance of green/ open spaces.
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: This site provides good progression of the SA objective for balanced communities. In particular the provision of new facilities and health services alongside housing developments, promotes a balanced approach that will also provide long term cumulative benefits for the existing population.		

Shillington Site H006: Land at High Road		
SA Objective	LSE	Additional comments
1. Building Communities	LG	
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	Possible increased private car dependency, mitigations required.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: The development of approximately twenty four dwellings is appropriate for a settlement of this size, however, residents will most likely travel by car to service centres as the village is not currently well served by public transport. Whilst no strategically significant sustainability constraints are identified, progression of SA objectives for this smaller development will be enhanced by the consideration of sustainable transport measures as part of the development.		

Silsoe		
H106 development of 380 dwellings with B1 business use		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Site allows for a significant level of affordable housing.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	Potential for increased private car/ road based traffic.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	Consideration should be given to the protection of local character.
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints are identified at this site. The development of 380 dwellings is substantial and will have a positive effect on affordable housing in the District. The potential for traffic increases should continue to be addressed both locally at this development, and in relation to surrounding developments to ensure that there is no cumulative negative impacts arise from a growth in traffic movements.		

Stondon		
H079 development of 70 dwellings community facility and a village green		
H176 development of 13 dwellings		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Additional benefits possible if services are incorporated into planned developments.
2. Infrastructure	LG	
4. Economy and Employment	LG	Inclusion of employment floorspace supports employment objectives.
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	H079 should include the retention of habitats and the development of multifunctional greenspace to reduce local impacts on the existing settlement and support wider biodiversity objectives.
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints are identified at this site. H079 proposes a substantial expansion to the existing settlement envelope which will require mitigation to avoid visual and wider traffic impacts on existing communities. The incorporation of community buildings and open space supports and progresses SA objective for balance communities and longer term benefits are likely for existing and new residents. H176 provides housing in proximity to employment, which has potential benefits for sustainability where local employment/ residential options allow for reduced travel. Pedestrian walkways, including the retention of existing rights of way should be a requirement of development.		

SMALL VILLAGES

Brogborough Site E15: Land between A421 and Marston Gate Distribution Park		
SA Objective	LSE	Additional comments
1. Building Communities	?	No services available - developers could be encouraged to provide. e.g. village shop
2. Infrastructure	LG	
4. Economy and Employment	LG	The provision of 500 jobs will contribute to the cumulative positive effect of employment allocations within Central Beds.
5. Transport	LG	The site is within 200m of the M1 and Ridgmont station, therefore there is potential for the site to be well linked to the existing transport infrastructure.
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No strategically significant sustainability constraints are identified in relation to this proposed development. It is noted that the existing settlement is poorly served by facilities and mitigation measures to improve service provision, e.g. a village shop should be considered as part of the overall development. The provision of 500 jobs will progress the SA objective for economy and employment in the long term and contribute cumulatively to the positive effects of all the proposed employment across the plan area.		

Dunton Site H192: Land off Boot Lane		
SA Objective	LSE	Additional comments
1. Building Communities	LG	Provision of facilities provides good support for and progression of this SA objective.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: This is a small scale development appropriate for a settlement of this size, which will also provide a village hall, sports pitches and allotments providing no strategically significant sustainability constraints and opportunities to provide benefits against community and employment objectives in the medium to longer term.		

Everton Site H244: 21 Sandy Road Site H246: Part of the Heath		
SA Objective	LSE	Additional comments
1. Building Communities	LG	H246, opportunities to support the provision of affordable housing.
2. Infrastructure	LG	
4. Economy and Employment	LG	
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: The development of fifteen new dwellings and one renovation does not present strategically significant sustainability constraints at this settlement. Development is acceptable although consideration should be given to improved service provision to ensure wider community benefits can be realised in the longer term -there is currently a pre school within walking distance of both sites.		

Moggerhanger Site H154: Land rear of The Guinea PH, Bedford Road, Moggerhanger		
SA Objective	LSE	Additional comments
1. Building Communities	?	No services available- developers could be encouraged to support service provision
2. Infrastructure	LG	
4. Economy and Employment	LG	No employment proposed
5. Transport	LG	
7. Water	LG	
9. Climate Change	LG	Requirement to travel for employment, services
12. Biodiversity	LG	
13. Landscape	LG	
15. Historic/Cultural Heritage	LG	
16. Land and Soils	LG	
17. Pollution	LG	
Summary: No effects of strategic significance are identified against SA objectives. However it is noted that existing services in this village are poor and therefore the achievement of building sustainable communities objective may not be actively supported. Where possible consideration should be to support for new or enhance existing service provision.		

Cumulative Effects Assessment: Strategic Assessment All Sites		
SA Objective	LSE	Additional comments
1. Building Communities	DG	Good, long term cumulative progression of this objective across the plan area through the provision of a mix of housing types and tenures, frequently incorporated with employment provision and expansion or delivery of services. There is the potential for minor negative impacts on existing communities due to the introduction of new developments, however the delivery of new services, in combination with improved viability for exiting services will be of long term benefit to communities overall.
2. Infrastructure	LG	No strategically significant effects identified against this objective across the sites. All developments should be phased to ensure that appropriate infrastructure is provided in a timely manner. There is extensive potential to incorporate Green Infrastructure into developments, for example, through linkages to existing green spaces, and through maintaining and enhancing habitats in developments where Greenfield land is being used.
4. Economy and Employment	LG	Increased provision of employment floorspace across the plan area will ensure a cumulative improvement in economic opportunity for local communities. The plan provides for effective progression against this objective by seeking where possible to deliver mixed development that places employment and centres of population in close proximity.
5. Transport	O	The cumulative effects of the plan are likely to be increased transport pressures – particularly at strategic sites, but also incrementally across smaller settlements. Where vehicular, road based transport increases there is clear potential to exacerbate existing/identified sustainability challenges in the area. Key issues that will require active mitigation and development to reduce the potential for long term negative impacts include: addressing the limitations in the current public transport service provision and connections (rail routes typically north to south); expanding and improving national and local cycle routes; promoting the early development of mixed allocations where the co-location of employment and living space has the potential to offset less sustainable travel patterns.
7. Water	LG	The site selection process has ensured that development proposals are focused away from flood risk areas. Flood risk in relation to strategic sites is typically low and the evidence base has not identified any major water supply issues. However, the Central Beds region is one of relatively high development in an area of the UK where the longer term predictions are for water deficits. It will therefore be essential to ensure that new developments incorporate strong mitigations in relation to increased demands e.g. through water efficiency measures in all new residential and employments developments.
9. Climate Change	?	All developments have the potential to increase vehicular traffic, in particular in those settlements where public transport access is limited or proximity to major road networks (M1/A1) induces additional traffic. Road traffic emissions are a significant contributor to greenhouse gases and while the long term cumulative effect of increased road traffic are uncertain where developments have yet to occur, without mitigation they have the potential to be negative against this SA objective. All new developments should however, incorporate energy efficiency measures (reducing the contributions of the built environment) and sustainable transport measures in mitigation.

Cumulative Effects Assessment: Strategic Assessment All Sites		
SA Objective	LSE	Additional comments
12. Biodiversity	LG	The site selection process supporting the proposed sites ensured that key environmental designations and constraints have been taken into account and avoided. Where new developments occur on Greenfield land, the maintenance of existing networks (e.g. footpaths) and the provision of Green Infrastructure will provide strong mitigation. All opportunities to enhance biodiversity should be incorporated in new developments (e.g. wetland areas, green roofs, hedgerow planting etc).
13. Landscape	LG	The provision of new developments adjacent to existing settlements requires careful and sensitive design to ensure that visual impacts are reduced. Siting and orientation should take local features into account, ensuring that there are no long term negative cumulative effects against this SA objective.
15. Historic/Cultural Heritage	LG	The sites selection process for Central Beds has ensured that the overall location and specific siting of new developments respects the presence of valued or designated historic and cultural features. New development can also be designed sensitively to enhance or complement historic settings of existing settlements.
16. Land and Soils	LG	Where possible developments are focused on previously developed land and all sites have the potential to ensure that the density of development provides protection for land and soils where valued resources exist. The site selection process has sought to ensure that valuable agricultural land and or soils that support key habitats are protected from development pressures.
17. Pollution	?	All developments, whether strategic scale or local level will result in disruption, disturbance from noise and local level changes in emissions. Identified transport issues indicate the potential for cumulative increases in NOx pollutants from road traffic, which will require mitigation measures. Minor increases in light pollution are also possible from new developments.
<p>Summary:</p> <p>The site allocations proposed provide strong overall progression of the building communities SA objective through meeting housing need with the provision of a range of mixed allocations at settlements across the plan area. The cumulative effects for population overall are likely to be positive. The plan also will have significant positive, long term effects for the economy and employment through improved employment provision in existing settlements and new employment provision. Where employment provision is linked to new housing developments additional indirect benefits for community, transport and climate change objectives are likely.</p> <p>There are no strategically significant constraints for biodiversity, landscape, historic and cultural heritage, and land and soils objectives. Local level impacts, for example in relation to settlement settings can be addressed by commensurate mitigations and the incorporation of multifunctional green infrastructure has the potential to support and enhance biodiversity interests and provide support for sustainable communities objectives.</p> <p>There are potential negative effects arising from the overall predicted growth in road based traffic in areas where public transport infrastructure is poor. These effects may, however, be mitigated through providing for enhanced connectivity (e.g. the co-location of employment and housing) and the introduction of multi-user rights of way (footways and cycleways). The provision and promotion of public transport will be a key mitigation requirement for avoiding long term negative effects from transport.</p> <p>Increases in the area's contribution to greenhouse gas production is likely given the development proposals and will arise not only from transportation but also the embodied energy inherent in construction (housing & employment). The use of sustainable design and construction measures as standards provide mitigation.</p>		