

**South Bedfordshire District Council
and Bedfordshire County Council**

Houghton Regis Town Centre Masterplan
Supplementary Planning Document

Sustainability Appraisal Report- Final
June 2008

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Non Technical Summary

Introduction

The Luton and South Bedfordshire Joint Planning and Transportation Committee (JPTC) have appointed Halcrow Group Ltd to undertake a Strategic Environmental Assessment (SEA) and Sustainability Appraisal (from hereon referred to as SA) of the emerging Houghton Regis Town Centre Supplementary Planning Document (SPD).

Purpose of this SA Report

This Report documents the outcome of the SA of the Houghton Regis Town Centre SPD. It summarises the appraisal that was undertaken at earlier baseline and draft SPD stages and documents the appraisal of significant changes to the preferred option following public and stakeholder consultations.

Houghton Regis Town Centre SPD

It is envisaged that the SPD will stimulate and guide future development and create a framework for high quality enhancement of the town centre. The SPD will provide a planning context for decisions on future planning applications within the town centre and set a context for decisions on management and investment decisions.

Developing the SPD options

A qualitative assessment of the initial SPD options was undertaken. The focus of the assessment considered the impacts of each of the three options in comparison with one another. The assessment contributed to the development of a sustainable preferred option for town centre regeneration and identified key issues to be addressed in later stages of the SPD.

The Options

Option 1: Composite Redevelopment Minimal High Street Re-alignment

Option 2: Composite Redevelopment Partial High Street Re-alignment

Option 3: Composite Redevelopment Full High Street Re-alignment

The draft SA revealed no significant variation amongst the three options in relation to their contribution to the sustainability objectives. However in terms of overall sustainability impacts of each of the initial options, it is judged that Option 3 performs marginally better than options 1 and 2 and has more positive effects on the sustainability objectives. This is largely attributable to the amount of employment floorspace developed for retail and office use,

which will be beneficial to the amount of employment opportunities in the area and the potential to contribute to social sustainability objectives.

Predicting the effects of the Final SPD

Robust feasibility, technical testing, sustainability and economic assessment of the early regeneration options enabled the identification of a preferred option. Following consultations, it was agreed with the client group to take a variation of this option forward within the SPD. This report documents the iteration process and outcome of the appraisal of the final SPD.

This SA determines that the final SPD will have mainly positive effects on sustainability objectives and no negative effects. The SPD performs particularly well in relation to the economic and social objectives. It provides a wide range of job and business opportunities, attractive sites for employment and measures to improve Houghton Regis town centre accessibility.

Improved accessibility to the town centre will improve inward investment and access to a range of job opportunities and thereby improve job prospects, which would provide strong support for regeneration and social inclusiveness objectives. However there is some long term uncertainty regarding the prospects for a potential substantial increase in traffic levels as the scale of activity at the town centre increases and growth takes place in the wider area. This will be managed through the proposed traffic management and parking strategy.

Mitigation Measures and Supporting Initiatives

The following mitigation measures are recommended:

Policies and Supporting Initiatives

In order to encourage and promote sustainability across the wider growth area a number of policies and supporting initiatives should be included in the Core Strategy;

- Policy support for sustainable design, demolition and construction techniques in all forms of development across all DPDs; and
- Policies supportive of energy efficiency, local energy production and increasing the use and generation of renewable energy and use of heat from Energy from Waste facilities.

Economic Factors

- Implementation of the SPD should encourage initiatives which develop and promote the local recycling economy and the market for recycled materials;

Population and Human Health

- Care will need to be taken to ensure that routes for walking and cycling are carefully maintained;
- Provision of cycle parking and storage specificity in relation to the High Street and the employment areas should be considered; and
- Planning approvals should incorporate appropriate mitigation for the construction period, including working hour restrictions, the use of noise barrier.

Material Assets

- Measures to control light pollution should be explored;
- Implementation of the SPD should promote efficiency in the movement of demolition, construction and commercial waste (e.g. back loading); and
- Implementation of the SPD should include requirements for sustainable construction practices for all new build upon site.

Landscape and townscape

- Implementation of the SPD should encourage initiatives to encourage community involvement in the management of public open space, which will increase stewardship; and
- Maintenance is critical to the ongoing success of green/open spaces. T Implementation of the SPD should encourage applicants to include arrangements for maintenance in detailed development proposals.
- Detailed design needs to ensure renewable energy projects and recycling facilities are in keeping with the townscape character and of an appropriate scale and design.

Cultural Heritage

- There should be no direct impact upon sites of cultural heritage value, however, further detailed assessment and monitoring during the construction period should be a requirement; and

- Developers should consider the negative impacts both temporary and permanent of construction vibration. Construction techniques should be developed in consultation with English Heritage.

Social Factors

- Details of the proposed mix of housing and tenure should be developed as further progress is made on the Core Strategy DPD.

Water

Sustainable Drainage Solutions will require ongoing management, ideally these should remain in public ownership to ensure their integrity.

Next steps

This Sustainability Report will be submitted with the final SPD for adoption in the summer 2008. The next steps relate to implementation of the SPD. Monitoring of the effects of implementation and responding to adverse effects, as appropriate.

2 Introduction

2.1 **Background**

The Luton and South Bedfordshire Joint Planning Committee (JPC) have appointed Halcrow Group Ltd to undertake a Strategic Environmental Assessment (SEA) and Sustainability Appraisal (from hereon referred to as SA) of the Houghton Regis Town Centre Masterplan.

It is the JPC's intention to adopt the Houghton Regis Town Centre Masterplan as a Supplementary Planning Document (SPD). There are statutory procedures, which must be followed in preparing SPDs. SPDs are not subject to independent examination by a Planning Inspector but they are subject to SA, SEA and consultation requirements of the Statement of Community Involvement (SCI) and Regulation 17 of the Town and Country Planning (Local Development) (England) Regulations 2004 which relates to public participation. In this Report the acronym SA is used to denote the SEA process as prescribed by the EC SEA Directive and UK Environmental Assessment of Plans and Programmes Regulations (2004), as well as including consideration of broad sustainability issues which would usually be considered in a SA, as set out in ODPM guidance¹.

2.2 **Status of this report**

This Sustainability Report documents the outcome of the SA of the Houghton Regis Town Centre SPD. The process of Sustainability Appraisal has followed the five stage process outlined in the former ODPM guidance². The first stage of the SA (Stage A), including the preparation of a Scoping Report, was completed and submitted for consultation during August 2007. The draft SPD

¹ Sustainability Appraisal of Regional Spatial Strategy and Local Development Documents, ODPM 2005

² Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents (ODPM, November 2005)

options were appraised in Stage B. The draft Sustainability Appraisal Report (Stage C) was submitted for consultation with statutory consultees and the public during September-October 2007. This document reports on the results of that consultation and provides a broad qualitative appraisal of the significant changes made to the draft SPD (Stage D). This Sustainability Report will be submitted with the SPD for adoption in early 2008.

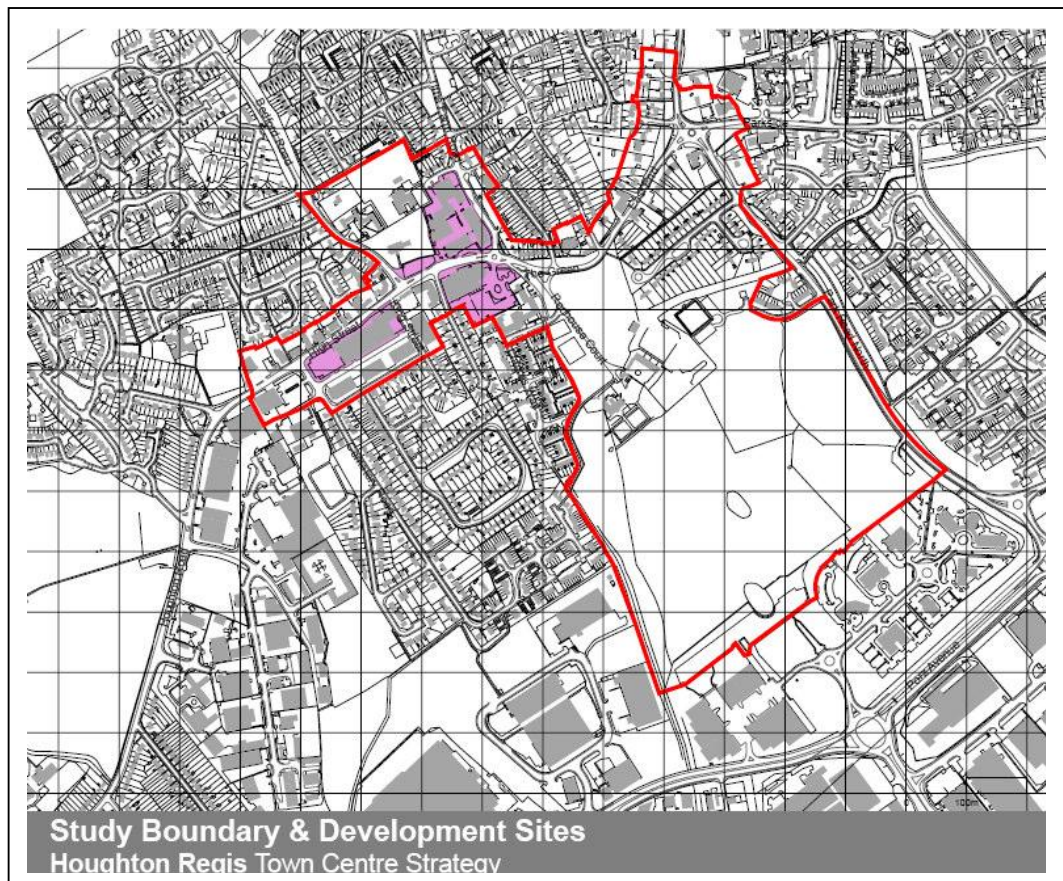
Stages and tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
A1: Identifying other relevant plans, programmes and sustainability objectives
A2: Collecting baseline information
A3: Identifying sustainability issues and problems
A4: Developing the SA Framework
A5: Consulting on the scope of the SA
Stage B: Developing and refining options and assessing effects
B1: Testing the SPD objectives against the SA framework
B2: Developing the SPD options
B3: Predicting the effects of the draft SPD
B4: Evaluating the effects the draft SPD
B5: Considering ways of mitigating adverse effects and maximising beneficial effects
B6: Proposing measures to monitor the significant effects of implementing the SPD
Stage C: Preparing the Sustainability Appraisal Report
C1: Preparing SA Report
Stage D: Consulting on draft SPD and Sustainability Appraisal Report
D1: Public participation on the SA Report and the draft SPD
D2: Assessing significant changes
D3: Making decisions and providing information
Stage E: Monitoring the significant effects of implementing the SPD
E1: Finalising aims and methods for monitoring
E2: Responding to adverse effects

2.3

Houghton Regis Town Centre SPD

It is envisaged that the SPD will stimulate and guide future development and create a framework for high quality enhancement of the town centre. The SPD will provide a planning context for decisions on future planning applications within the town centre and set a context for decisions on management and investment decisions. The study area is shown on Figure 1.1 below:

Figure 1.1: The Houghton Regis Town Centre SPD Study Area



The Houghton Regis Town Centre SPD will focus on three sub-areas (highlighted in purple in figure 1.1);

- the High Street
- the Bedford square / Co-op Site
- the western frontage of The Green

2.4

Luton and South Bedfordshire Local Development Framework

The Local Development Framework (LDF) is the emerging development plan for Luton and South Bedfordshire. LDFs are the new form of spatial development plan introduced by the Government's planning reforms in the Planning and Compulsory Purchase Act (2004) (The Act). The LDF will eventually replace the existing Local Plans.

The LDF will consist of a portfolio of Local Development Documents (LDDs) which will include Development Plan Documents (DPDs) which will collectively guide development in Luton and South Bedfordshire. Central to this portfolio is the Core Strategy DPD, which sets out the overall vision and objectives for future development in Luton and South Bedfordshire and provides a framework for later DPDs and SPDs.

In addition to these statutory DPDs there will be a number of non-statutory SPDs (such as the Houghton Regis Town Centre SPD), setting out more detailed guidance at a more specific level. The JPTC is also required to prepare a number of further documents as part of the LDF process, including:

- **Local Development Scheme (LDS)** - 3 year project plan for the preparation of the LDF, it sets out key milestones in DPD and SPD production.
- **Statement of Community Involvement (SCI)** – outlines how the Council aims to involve local communities and stakeholders in the DPD and SPD preparation process.
- **Annual Monitoring Report (AMR)** – this report will outline and monitor the progress made with the preparation of the LDF.

2.5

Background to SEA and SA

Under The Act and the SEA Regulations³ which came into force in England and Wales in July 2004 SA and SEA are mandatory for Regional Spatial Strategies (RSS), DPDs and SPDs.

The Act requires SAs to be carried out on DPDs (which include the core strategy and site specific allocations), and SPDs. SAs help planning authorities to fulfil the objective of contributing to the achievement of sustainable development in preparing their plans through a structured

³ The Environmental Assessment of Plans and Programmes Regulations 2004

assessment of the objectives and core strategies against key sustainability issues for their area.

The Environmental Assessment of Plans and Programmes Regulations (2004) which implement European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive, requires SEA of a wide range of plans and programmes, including LDFs. The objective of the SEA Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans, with a view to promoting sustainable development.

SEA and SA are very closely linked. SA aims to integrate sustainability issues into decision making by appraising the plan or strategy using environmental, social and economic objectives. SEA also aims to facilitate sustainable development but its emphasis is on integrating environmental considerations into decision making through a thorough analysis of environmental issues.

Although the requirement to carry out both an SA and SEA is mandatory, it is possible to satisfy the requirements of both pieces of legislation through a single appraisal process. The former ODPM's Guidance on Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents⁴ integrates SEA with SA. It describes a single appraisal process that meets the legal requirements of both the SEA Directive and the Act. This SA incorporates this integrated approach. SEA Directive Requirements Checklist

Table 1.1 below summarises the requirements of the SEA Directive and signposts where they have been met in the SA process.

Table 1.1: The SEA Directive's requirements

The SEA Directive's requirements⁵	Where covered in the SA process
a) An outline of the contents, main objectives of the plan or programme, relationship with other relevant plans & programmes	SA Scoping Report
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	SPD SA and LDF Scoping Report

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

⁵ As listed in Annex 1 of the SEA Directive

The SEA Directive's requirements⁵	Where covered in the SA process
c) The environmental characteristics of areas likely to be significantly affected	SPD SA and LDF Scoping Report
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	SPD SA Scoping Report
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	SPD SA Scoping Report
f) 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, archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium, long-term permanent, temporary, positive & negative effects)	Sections 4 and 5
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Section 6
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Sections 4 and 5
i) a description of measures envisaged concerning monitoring in accordance with Article 10	Section 7
j) a non-technical summary of the information provided under the above headings.	Non Technical Summary
k) Consultation: Authorities with environmental responsibility and the public shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)	Six week consultation on the draft SPD and accompanying Sustainability Appraisal Report (Consultation Version)
l) Taking the environmental report and the results of the consultations into account during the preparation of the plan and before its adoption (Art.8)	Section 10

3 Stage A: Context, Objectives and Baseline

3.1 *Introduction*

This section summarises Tasks A1 – A5, which were reported on in full in the SA Scoping Report, August 2007.

3.2 *Identifying Plans, Programmes and Objectives*

The purpose of this task was to provide information on relevant plans and programmes and the sustainability objectives established at International/European, National, Regional or local level which are relevant to the SPD. A review of relevant policy documents is an essential component of setting the baseline. It also helps to establish the economic, social and environmental context for the SPD. The following documents were reviewed and the results were presented in the Appendix to the Scoping Report.

International/ European
European Sustainable Development Strategy (EDS), (European Union, 2001)
Bonn Convention on the Conservation of Migratory Species of Wild Animals, (1979)
Bern Convention on the Conservation of European Wildlife and Natural Habitats, (1979)
The Convention on Biological Diversity, Rio de Janeiro (1992)
Kyoto Protocol on Climate Change (UN, 1997)
The UN Millennium Declaration and Millennium Development Goals (2002)
World Summit on Sustainable Development - Earth Summit (2002)
EU Directive on the Conservation of Wild Birds (79/409/EEC)
EU Waste Framework Directive (91/156/EEC)
EU Nitrates Directive (91/676/EEC)
EU Habitats Directive (92/43/EEC)
EU Directive on Ambient Air Quality and Management (1996/62/EC)
European Spatial Development Perspective (ESDP), EU Ministers for Spatial Planning, (1999)
EU Waste to Landfill Directive (99/31/EC)
EU Council Directive on Environmental Noise, 2002/49/EC, (EC, 2002)
EU Directive Establishing a Framework for the Community Action in the Field of Water Policy (2000/60/EC) – The Water Framework Directive
European Commission White Paper on the European Transport Policy (EC, 2001)
EU Sustainable Development Strategy, EU, (2001)
Arhus Convention (2001)
EU Directive to promote Electricity from Renewable Energy (2001/77/EEC)
Environment 2010: Our Future, Our Choice - EU Sixth Environment Action Programme (2002)
EU Directive for the Promotion of Bio-fuels for Transport (2003/30/EC)

European Biodiversity Strategy, European Commission, (1998)
EC Council Directive on the Conservation of Habitats and of Wild Fauna and Flora 92/43/EEC
EU Council Directive on Environmental Noise, 2002/49/EC, EC, (2002)
EU Sixth Environmental Action Programme, EU, (2001)
Water Framework Directive, EU, (2000)
National
Wildlife and Countryside Act 1981 (as amended)
Choosing Health: Making Healthier Choices Easier, (Department of Health, 2004)
'Working with the Grain of Nature': A Biodiversity Strategy for England (2002)
Biodiversity Strategy for England, Central Government, (2002)
UK Biodiversity Action Plan - UK BAP (Defra, 1994)
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum, Defra, (2003)
UK Air Quality Strategy (ODPM, 2000)
Countryside and Rights of Way Act – CRoW (ODPM, 2000)
Government Urban White Paper: Our Towns, Our Cities, the Future. Delivering an urban renaissance (DETR, 2000)
UK Waste Strategy (2000)
UK Climate Change Programme (2006)
The Historic Environment: A Force for Our Future (2001)
UK Fuel Poverty Strategy (2001)
Our Energy Future - Creating a Low Carbon Economy' - UK white paper on energy (2003)
The Future of Transport – UK white paper on transport (2004)
UK Climate Change Programme Review: Consultation (Defra, 2004)
Choosing Health: making Healthier Choices Easier – Health White Paper (2004)
Securing the Future – Delivering UK Sustainable Development Strategy, Central Government, (2005)
PPS1 – Delivering Sustainable Development, ODPM, (2005)
Planning Policy Statement: Planning and Climate Change, Supplement to PPS1, Consultation Document, Communities and Local Government, (13th December 2006-8th March 2007)
PPG2 – Green Belts, (1995)
PPS3 – Housing, (2006)
PPG4 – Industrial and Commercial Development and Small Firms, ODPM, (1992)
PPS6 – Planning for Town Centres, ODPM, (2005)
PPS7 – Sustainable Development in Rural Areas, ODPM, (2004)
PPG8 – Telecommunications, ODPM, (2001)
PPS9 – Biodiversity and Geological Conservation, ODPM, (2005)
PPS10 – Planning for Sustainable Waste Management, ODPM, (2005)
PPS 12 – Local Development Frameworks, (2004)
PPG13 – Transport, ODPM, (2001)
PPG14 – Development on Unstable Land, ODPM, (1990)
PPG15 – Planning and the Historic Environment, ODPM, (1994)
PPG16 – Archaeology and Planning, ODPM, (1990)
PPG17 – Planning for Open Space, Sport and Recreation, ODPM, (1991)
PPG19 - Outdoor advertisement control, ODPM, (1992)
Good Practice Guide on Planning for Tourism, DCLG, July 2006

PPS22 – Renewable Energy, ODPM, (2004)
PPS23 – Planning and Pollution Control, ODPM, (2004)
PPG24 – Planning and Noise, ODPM, (1994)
PPS25 – Development and Flood Risk, Communities and Local Government, 2006
Building a Greener Future: Towards Zero Carbon Development, Consultation Document, Communities and Local Government (2006)
Sustainable Communities Plan (February 2003)
Regional
Milton Keynes and South Midlands Sub Regional Strategy, (2005)
The Draft East of England Plan (December 2004)
The Draft East of England Plan Examination in Public Panel Report (June 2006)
Sustainable Development Framework for the East of England (2001)
Sustainable Communities: Building for the Future - Communities Plan (2003)
Our Environment, Our Future – The Regional Environmental Strategy for the East of England (2003)
Regional Transport Strategy for the East of England (draft published in 2004 as part of the East of England Plan)
Regional Social Strategy: A strategy to achieve a fair and inclusive society in the East of England (launched in May 2004)
A Shared Vision: The regional economic strategy of the East of England (formally released on 1 December 2004)
Regional Planning Guidance for the South East (March 2001)
Sustainable Futures: The Integrated Regional Strategy for the East of England (2005)
Revised Regional Housing Strategy for the East of England 2005-2010 (2005)
Creating Sustainable Communities in the East of England (2005)
Towns and Cities – Strategy and Action Plan: Urban Renaissance in the East of England
A Housing Strategy for the London Commuter Belt Sub-Region 2005-2008
County
Bedfordshire Structure Plan 2011, (1997)
Bedfordshire's Community Strategy 2003 – 2013, (2003)
Bedfordshire Local Transport Plan 2006/7 – 2010/11
The Bedfordshire and Luton Minerals and Waste Local Plan, (2005)
Local
South Bedfordshire Local Plan Review, (January 2004)
Luton and South Beds Retail Study, (2005)
Draft Joint Statement of Community Involvement, (June 2006)
'A better quality of life in South Bedfordshire': South Bedfordshire's Community Plan, (2001)
Luton, Dunstable and Houghton Regis Local Transport Plan 2006-2011
Bedfordshire and Luton Biodiversity Action Plan, (2001)
South Bedfordshire's 2003 Housing Strategy
South Bedfordshire's Environmental Statement, 2006

3.3

Baseline and Issues

Tasks A2 and A3 relate to the collection and analysis of baseline issues, leading to the identification of issues which the SA will need to address. This

exercise was carried out and a Scoping Report was produced in August 2007 at the end of stage A4 (see Scoping Report in Appendices 1 &2). The report comprises of review of policies, plans and programmes, baseline collection and identification of issues and options. By looking at the outputs of the review of plans and programmes, and the baseline data collation exercise, it is possible to identify particular sustainability issues affecting the study areas. This is one area of the SA where the consideration of **inter-relationships** between effects can be incorporated. In Table 2.1 below, for each SA topic impacted upon by a sustainability issue, a short qualitative explanation follows, detailing the inter-relationships between issues

Table 2.1: Sustainability Issues and Opportunities

Sustainability Issue	Opportunity for Enhancement	Inter relationships
ECONOMIC FACTORS		
<ul style="list-style-type: none"> Houghton Regis is currently characterised by a rather tired and dated retail core with limited comparison provision geared towards the discount end of the sector. The limited pedestrian flows and aged physical environment in combination with the configuration and nature of the existing stock are unlikely to attract substantial interest from investors. Potential (and a market) for new, smaller office units. Residential development is likely to be at the heart of any scheme for the regeneration of the town 	<ul style="list-style-type: none"> Provision of modern office accommodation through new developments Make the area attractive to investors The anticipated public realm improvements, high quality residential and commercial development will enhance the marketability of Houghton Regis. A high quality townscape could lead to indirect commercial benefits as well as increasing Houghton Regis's ability to attract inward investment. Provide a range of quality employment sites and employment opportunities Support and develop opportunities for the young population Create mixed use environment and promote managed evening economy 	<ul style="list-style-type: none"> Good economic base creates opportunities for the local population and address employment issues. This further has effect in improving the general living standards of people Qualification has a direct implication on employment and skill development for the economy Improved vehicular movement attracts residential and commercial investors
SOCIAL FACTORS		
<ul style="list-style-type: none"> South Bedfordshire 253 out of 354 local authorities (a rank of one being most deprived) in the Index of Multiple Deprivation Crime rates have been dropping in South Bedfordshire but still above national average 	<ul style="list-style-type: none"> Opportunity to provide affordable housing through new developments Potential options should consider the need to encourage social cohesion within Houghton Regis Town Centre Proposals should help improve the health and sense of well-being of residents and visitors, through cutting pollution and accident levels whilst encouraging cycling and walking activities Proposals should consider the need to protect and provide open spaces and recreation areas within the town centre Proposed developments should be seen as an opportunity to address the need for high quality, low cost housing available to all Options developed should take account of the multicultural nature of the Growth Area and should provide/maintain space and buildings for cultural activities All options should recognise the importance of 	<ul style="list-style-type: none"> Good access to various services like schools, health facilities reduces chances of deprivation. If the access is linked to public transport, potential to reduce traffic volumes and improve environmental conditions exists

Sustainability Issue	Opportunity for Enhancement	Inter relationships
	<p>reducing actual crime and fear of crime within their proposals</p> <ul style="list-style-type: none"> Improve Public Realm- High quality design not only helps enhance the quality of life, social well being and human health but it can also help reduce crime, fear of crime and deter anti-social behaviour. Improving pedestrian and cycling facilities, along with an increased presence of residential uses in the town centre will contribute to passive surveillance of streets, spaces and parking. Provide good lighting in the town centre 	
WATER		
<ul style="list-style-type: none"> Unprecedented demands on water resources Meeting present and future water demand- growth proposals will place further pressures on supply Need to reduce run-off rates from development 	<ul style="list-style-type: none"> Decrease quantity and increase quality of urban runoff (e.g. SUDS and Vegetative Treatment Systems) Sustainable drainage solutions should be promoted. This will help reduce water pollution associated with surface water run-off. Water conservation solutions(rainwater collection/harvesting and grey water recycling) should be promoted- will not only help achieve savings in water consumption but also reduced treatment requirements- with energy efficiency and cost benefits. Consider overall siting of development schemes in order to minimise potential effects on water quality New developments should incorporate rainwater re-use Ensure new polluting processes are located in areas where groundwater is not vulnerable Improve river quality by using sustainable drainage schemes Management of ground contamination and ensure that it would not pollute the ground water Ensure new polluting processes are located in areas where groundwater is not vulnerable 	<ul style="list-style-type: none"> Climate change is resulting in more extreme weather conditions and will heighten flood risk and demands on water resources
BIODIVERSITY		
<ul style="list-style-type: none"> Enhancement of biodiversity through development design e.g. green roofs, creation of green grid The strategy should promote green roofs. Green roofs have many environmental and community benefits 		<ul style="list-style-type: none"> The diversity of habitats and species enriches people's lives

Sustainability Issue	Opportunity for Enhancement	Inter relationships
<ul style="list-style-type: none"> Green roofs significantly reduce the amount of rainwater runoff created by rooftops and thereby help reduce flood risk and help improve local water quality; Green roofs help keep buildings cooler in summer and warmer in winter, providing a layer of insulation that also helps reduce energy bills; They can also enhance biodiversity and the quality of life; and Green roofs can help extend the life of the roof by reducing temperature fluctuations that can damage roofing material. <ul style="list-style-type: none"> Create new, and improve existing habitats, Green Infrastructure Brownfield sites may have ecological value. The suitability of under-used sites/brownfield sites should be assessed prior to development. Where practical designs should include measures to enhance and retain wildlife and habitat should be replaced if any lost to development The ecological and biodiversity value of brownfield sites should be assessed prior to development Maximise opportunities to provide for open space e.g. roof gardens, terraces and consider promoting the re-use of existing roof space where practicable to enhance biodiversity Measures to control light pollution should be promoted Developers should be encouraged from the outset to incorporate habitats into their developments 		<ul style="list-style-type: none"> A healthy natural environment improves quality of life. It adds to the aesthetic value of space and provides economic benefits through attracting inward investment Economic growth if undertaken unsustainably could adversely impact upon these assets.
AIR QUALITY		
<ul style="list-style-type: none"> Decreasing air quality in South Bedfordshire between 2000 and 2005 Potential Increased air pollution from growth traffic and congestion Lack of safe pedestrian and cycle routes A high dependency on private car for commuting results in congestion and negative impacts on air quality 	<ul style="list-style-type: none"> Opportunities to encourage non carbon based transport modes should be explored this in turn will help improve air quality and reduce greenhouse gas emissions The SPD should request developers to demonstrate that development will enhance air quality and negative effects will be mitigated The SPD should request developers to provide cycle routes and storage facilities (both in private premises and communally) this will in turn encourage people to use more sustainable modes of transport which will help reduce carbon dioxide emissions with benefits to both air quality and human health The SPD should promote on site storage for recycled waste which will help reduce road miles thereby contributing to the reduction in greenhouse gas emissions and air pollution Tree planting to offset air quality impacts and 	<ul style="list-style-type: none"> Air quality influences human health which affects quality of life and also economic activity Local residents and businesses experience air quality at the local level, which affects health and amenity. Increased public transport usage reduces vehicular emissions and in turn CO₂ emissions

Sustainability Issue	Opportunity for Enhancement	Inter relationships
	<p>Carbon Dioxide emissions</p> <ul style="list-style-type: none"> Retention of existing trees Improve cycle and pedestrian routes and links 	
CLIMATIC FACTORS		
<ul style="list-style-type: none"> Increase in greenhouse gas pollution/waste production Domestic CO₂ emissions per capita in South Bedfordshire are below regional and national averages Domestic energy efficiency improving 	<ul style="list-style-type: none"> It is recommended that the SPD should refer to the Government's Code for Sustainable Homes. The SPD could set a minimum code level which should be achieved across the study area The SPD could also consider setting a target relating to Lifetime Homes Standards. E.g. All homes to be designed to meet all 16 Lifetime Homes Standards There is also an opportunity to set a target relating to the Building for Life criteria. E.g. All development will achieve a minimum of a silver standard (14 of the 20 criteria to be achieved). Or a more ambitious target could be set: All development will achieve gold or higher (16 of the criteria to be achieved) Potential options for development should take into account the need to reduce emissions of greenhouse gases within their design, so as to help achieve national greenhouse gas emissions targets Potential options should reduce the need to travel and promote a modal shift from the private car to public transport, walking and cycling Proposals should explore opportunities for renewable energy use and generation within their proposals The SPD should promote new developments to provide facilities to enable household waste to be recycled or composted on-site. This will help reduce waste, the carbon footprint of developments and road miles – less waste is produced and more waste is recycled on site, resulting in less waste requiring disposal. Sustainable drainage solutions should be promoted in the SPD. These solutions would have ecological benefits and help reduce water pollution associated with surface water run-off. Adoption of maximum parking standards for new developments and consideration of car free developments 	<ul style="list-style-type: none"> Climate change is likely to affect water resources (supply and demand), alter habitats, affect air quality and public health and increase flood risk. These could all adversely impact upon Luton and South Bedfordshire's economy

Sustainability Issue	Opportunity for Enhancement	Inter relationships
	<ul style="list-style-type: none"> Where possible, consider how renewable energy generation facilities might be included within the design of new developments (particularly public buildings) e.g., photo-voltaics Sustainable innovative design of new developments e.g. public spaces and residential buildings should be placed so as to encourage solar gain, whilst offices should be placed so as to encourage natural ventilation and solar shading 	
POPULATION AND HUMAN HEALTH		
<ul style="list-style-type: none"> South Bedfordshire's population is increasing and set to increase under the growth proposals Life expectancy is lower than regional and national average Increasing proportion of residents aged 0-4 and over 65 Infant mortality is higher than national average Social infrastructure and community facilities unable to cope, stress from noise, congestion, pollution 	<ul style="list-style-type: none"> The SPD can significantly contribute to the protection and enhancement of human health by promoting walking, cycling and non carbon based transport modes Increasing energy efficiency of all buildings will reduce energy costs and will have positive impacts on human health and well-being The SPD should promote the use of noise insulation techniques and screening to mitigate potential disturbance from noise. Noise from traffic could be reduced through the use of noise reducing surfaces on roads combined with appropriate screening Increase accessibility through new developments to open areas and increase permeability of Houghton Regis Town Centre Population growth will add pressure to transport infrastructure Increased provision of green spaces that encourage walking and cycling and access to leisure and recreational facilities Support and develop opportunities for the young population Pedestrian network of links and routes can be expanded 	<ul style="list-style-type: none"> The benefits of improved human health include a healthy workforce, a reduced burden on social and health services and contributions to the local economy, through training and research opportunities
MATERIAL ASSETS		
<ul style="list-style-type: none"> Increased demand on land and natural resources The percentage of household waste recycled is increasing but remains below national average Amount of household waste is 	<ul style="list-style-type: none"> Sustainable construction methods and use of low environmental impact materials should be encouraged Proposals should consider the importance of layout and design of developments in terms of opportunities for waste minimisation and encouraging recycling 	<ul style="list-style-type: none"> A clean environment promotes good health and also attracts people and investments from outside Material assets include resources such as land, building materials and

Sustainability Issue	Opportunity for Enhancement	Inter relationships
increasing	<ul style="list-style-type: none"> Any new buildings should be developed using materials and methods that have a reduced impact on the environment (this includes consideration of the whole 'lifecycle' of a building, from construction to demolition) Opportunities for encouraging recycling and increasing access to recycling facilities should be built into the design of developments Encourage sustainable design, construction and operation of developments (e.g. ensure that new developments receive a CEEQUAL grading of 'very good' or 'excellent') The re- use or refurbishment of existing buildings should be promoted this will help reduce the need for new building materials 	<p>other resources which are non renewable</p> <ul style="list-style-type: none"> The topic is also concerned with the efficient use of resources, including re-use of brownfield sites and sustainable waste management The quality of the material assets in Luton and South Bedfordshire contributes to overall quality of life and can impact upon the economy
CULTURAL HERITAGE		
<ul style="list-style-type: none"> The majority of the study area lies within Houghton Regis (The Green) Conservation Area 13 listed buildings and a number of other key buildings of importance within the study area Development options need to respect, preserve and enhance the Conservation Area and historical assets 	<ul style="list-style-type: none"> Widespread improvements to public realm will improve quality of the built environment Any reduction in traffic/ encourage modal shift will be beneficial for the setting of cultural heritage features The Conservation Area needs to be preserved and enhanced; all proposals must address its sensitivities Measures to enhance the character and appearance of historic buildings, the Conservation Area and their settings and historic landscapes should be promoted Potential options should take account of the need to preserve and enhance Houghton Regis's historic features Improve the aesthetic appearance of the town centre to enhance the setting of historic buildings 	<ul style="list-style-type: none"> Cultural heritage contributes to the overall diversity and value of the landscape Also provides economic benefits by helping attract inward investment and is a source of enjoyment and entertainment for the population
SOIL		
<ul style="list-style-type: none"> Remediation of any contaminated land 		
TOWNSCAPE		
<ul style="list-style-type: none"> Poor public realm Buildings turn their backs on public realm, creating hostile walking and cycling environment Narrow footpaths, difficult for pedestrians, wheelchairs users and 	<ul style="list-style-type: none"> Incorporate public art within development sites where possible Improve public realm in the town Accentuate the existing features of the town Priority should be given to previously developed 	<ul style="list-style-type: none">

Sustainability Issue	Opportunity for Enhancement	Inter relationships
people with pushchairs etc <ul style="list-style-type: none"> Town centre heart is located off main High Street, creating a High Street that is dominated by through traffic Historic architecture is largely unnoticeable 	land and buildings when considering new development	
LANDSCAPE		
<ul style="list-style-type: none"> Development or land use change inconsistent with landscape character Poor access to open space in some areas (e.g. High Street creates severance north/south) Little greenery within town centre or along high street Urban design will affect the way in which users interact within buildings and their surroundings 	<ul style="list-style-type: none"> Recognise value of all landscapes, not just designated sites To enhance the quantity and quality of existing open spaces To create a strategic network of greenspace to fulfil multipurpose recreational, landscape, wildlife, sustainable drainage and wildlife needs Important to recognise the wider fabric of the landscape Building design will reflect the spectrum of users and consider the needs of older people, and people with disabilities There will be an active encouragement for people to obtain light physical exercise through the course of their interaction of the site e.g. safe pedestrian areas, clear connecting routes between access areas, the encouragement of stair use instead of lifts etc Improve the connectivity between the Houghton Hall Park, the Green and the town centre Establish All Saints Church, including the car park and churchyard as a central feature of the town centre 	<ul style="list-style-type: none"> An attractive landscape improves quality of life which in turn could contribute to increase inward investment.

3.4 **The SA Framework and Consultations**

The SA Framework was developed from the analysis of baseline information and sustainability issues. This Framework has been applied consistently throughout the SA process and is used to assess the SPD in section 5 of this report.

For the purposes of complying with the SEA Regulations, Part 3 Section13, the Scoping Report was circulated to the statutory consultees (Environment

Agency, English Heritage, and Natural England) in August 2007 for comment. The stakeholders were given a 6 week consultation period to comment on the Scoping Report, in line with the guidance. The comments received from the consultees have been considered as part of the SA process. The comments also relate to the options appraisal, hence a summary of consultation responses for both the scoping report and the options appraisal , together with the actions taken by the SA team is presented in section 9.

4 Task B1: Testing the SPD objectives against the SA framework

4.1 Purpose

An important test of the effectiveness of the SA process is its capacity to identify any inconsistencies between plan objectives set out in the document under review and the sustainability objectives defined in the SA framework. This task represents a key opportunity to ensure that the SPD objectives reflect the principles of sustainability, and that full recognition is given to sustainability issues early on in plan development. A series of key aspirations shape the vision for the SPD. Table 3.1 below summarises this assessment.

Table 3.1: Compatibility between the SA and SPD objectives

	C Objectives are compatible	N Objectives are not compatible	
	? Uncertainty over compatibility	- No relationship between objectives	
Abridged SA Objective	Abridged SPD Objectives		
	Celebrate the town's Heritage	Enhance image of the town	Improve Connectivity
Economic performance	C	C	C
Variety of employment opportunities	-	C	C
Access to services	C	C	C
Community identity and participation	C	C	C
Crime and fear of crime	C	C	C
Modal shift	?	C	C
Average distance travelled to facilities	C	C	C
Healthier lifestyles	C	C	C
Water quality and water consumption	?	?	?
Flood risk	?	?	?
CO ₂	?	?	?
Ensure development is Climate Change proof	C	C	C
Air quality	?	?	?
Previously developed land and buildings	C	C	C
Natural resources	?	?	?
Biodiversity	C	C	C
Historic environment	C	C	C
Townscape character	C	C	C
Landscape character	C	C	C
Soils	C	C	C

4.2

Summary and Conclusions

The Compatibility Matrix confirms that, overall; the SPD objectives are compatible with the SA objectives. The assessment indicates that there are no areas of conflict and a limited number of minor uncertainties. These uncertainties arise chiefly because the objectives are high level and leave much room for implementation in either a positive or negative way for sustainability. For example “improved connectivity” as an objective could be interpreted in a negative way as simply more road infrastructure and air pollution, or in a more positive way to promote sustainable travel choices such as walking, cycling and public transport. The main areas of uncertainty therefore concern the following:

- How to manage improved accessibility to encourage sustainable travel choices to ensure that increased economic activity does not lead to extra traffic growth and car emissions, and thereby conflict with air quality and climate change objectives?
- There are a number of uncertainties at this stage as the full extent of the infrastructure design, extent of energy and water efficiency design and materials useage are unclear at this stage.

A sustainability conflict could arise between the implementation of the SPD objectives and SA objectives relating to water quality and consumption, cultural assets, townscape and landscape. The SPD proposes to provide 7,690m² of retail floorspace, 1,260m² of food superstore floorspace and 7,100m² of office floorspace in the Town Centre. This level of proposed growth and associated infrastructure could lead to a number of negative impacts if measures and supporting policies are not in place to ensure quality design. These include the redevelopment of under-used sites which could have biodiversity value, water quality and water consumption issues and erosion of townscape character. If designed to a high quality the town centre proposals will positively contribute to an increase in quality of life, encourage investment and economic growth.

All of the uncertainties can be addressed if high environmental standards and high quality design are delivered in all development proposals and in SPD implementation.

5 Task B2: Developing the SPD options

5.1 *Purpose*

The appraisal of the regeneration options had several objectives:

- To contribute to the development of a sustainable preferred option for town centre regeneration;
- To identify key issues to be addressed in the SPD;
- To ensure compliance with procedures and best practice for undertaking sustainability appraisals; and
- To ensure consistency between the sustainability appraisal of the SPD and the appraisal of the other DPDs which form the Joint Luton and South Bedfordshire LDF.

5.2 *Appraisal Approach*

The initial Town Centre regeneration options were scored against their potential compliance with sustainable objectives. Due to the lack of quantitative data (i.e. traffic flow forecasts, projected job numbers etc) a qualitative assessment of the initial options was undertaken and where appropriate quantitative data was drawn upon. The focus of the assessment considered the impacts of each of the options in comparison with one another. The options were scored on the basis that mitigation measures have not been applied. The performance of the emerging SPD regeneration options against the SA objectives was scored using the following six point scale:

Symbol	Description
✓✓	Significant positive effect
✓	Positive effect
0	Neutral (neither positive or negative)
?	Effect uncertain
X	Negative effect
XX	Signfinat negative effect

It should be noted that the scoring was based on available information in respect of each of the options and has been based on the SA team's judgment and substantiated by quantitative data where possible.

5.3

Option Description

Option 1: Composite Redevelopment Minimal Re-alignment

This option illustrates improvements to the town centre that could be achieved with minimal change to the existing road pattern. This scheme incorporates a southerly shift in the alignment of the High Street in the western half of the Study Area between Netto and Bedford Road. Parcels A, B and C (AA Insulations block) provide opportunities for a mix of uses and could incorporate a car park to serve the western area. Parcels D and E could be redeveloped at any time as there is no substantive change to the existing parcel boundaries. Finally, landscape improvements would accompany a reorganisation of the secondary access roads in the western portion of The Green.

Option 2: Composite Redevelopment Partial Re-alignment

This option builds upon the *Minimal Re-alignment* option by shifting the eastern portion of the High Street southward to increase the size of the existing Bedford Square site. Though the existing Bedford Road junction and Rosalyn House (the sheltered housing block opposite the Church) preclude a more radical re-alignment, Parcel D would be enlarged whilst Parcel E could still accommodate retail related development. This scheme takes advantage of the nearly-vacant Coop site to re-align the High Street.

Option 3: Composite Redevelopment Full Re-alignment

This last option incorporates the most radical alteration to the physical layout of the area – realignment of nearly 400m of the High Street / The Green in the longer term. The through road is moved southward through the centre of the AA Insulations block (Parcels A, B and C) and then across the top of the Co-op Site (Parcel E). Establish the existing High Street (west) as a retail-focused pedestrian priority zone; the relocation of the Bedford Road junction and establish a high-profile civic use at that junction (Parcel C); the removal of through traffic away from Church Plaza. The construction of new outward-facing town homes, landscape and access road improvements along The Green.

5.4

Option Appraisal

This section outlines the results of the initial options appraisal. The full results are set out in Table 4.1 and summarised below. There is much commonality among the three options in relation to their contribution to the sustainability objectives:

- All options will have significant positive outcomes in terms of diversification and enhancement of Houghton Regis town centre;
- A substantial increase in the retail, office, leisure, community and residential offer has the potential to significantly improve Houghton Regis's economic performance and competitiveness;
- All options will provide attractive sites for mixed-use and office uses and will help diversify the tourism and leisure sector by providing leisure and retail facilities;
- The three options perform well in relation to the establishment of a variety of employment opportunities. However, the phasing strategy should reflect a balance between housing and employment growth;
- The proposed landscape enhancements and improved accessibility will bring commercial benefits and provide a good quality environment which encourages inward investment;
- All options perform well against the objective to maximise potential of brownfield land;
- The options all include potential for some biodiversity enhancement (for example in terms of provision of new native tree and shrub planting);
- The viability of the potential Luton Dunstable Busway extension along the High Street would improve through the increase in retail, office, leisure and residential floorspace in the town;
- In terms of the promotion of access to local services and public space, it is considered all options perform well;
- The concentration of development in the town centre is positive and the mix of facilities and amenities will enhance the opportunities for modal shift in favour of public transport, walking and cycling;
- All options support the objective of reducing the length of trips to facilities; and
- All options are compliant with national, regional and local planning policy.

There are a number of uncertainties in relation to impacts on townscape, landscape, natural resources, heritage, air quality and climate change at this stage of option development as the full extent of the scale of development, infrastructure design, extent of energy efficiency design and materials used remains unclear. All of the uncertainties can be addressed if high environmental standards and high quality design are delivered in all development proposals and in SPD implementation.

There is no significant variation amongst the three options in relation to their contribution to the sustainability objectives however in terms of overall sustainability impacts of each of the initial options, it is judged that Option 3 (full re-alignment) performs marginally better than options 1 (minimal re-alignment) and 2 (partial re-alignment) and has mainly positive effects on the sustainability objectives. This is largely attributable to the amount of employment floorspace developed for retail and office use, which will be beneficial to the amount of employment opportunities in the area and the potential to contribute to social sustainability objectives.

Although the implementation of option 3 is likely to result in an increase in traffic with potentially adverse impacts on local air quality and CO² emissions, this option includes improvements to the local road network, significant landscaping proposals (vegetation can help ease noise pollution and filter air pollution), tree planting (trees can provide an important carbon sink, through their capacity to absorb carbon dioxide) and improved pedestrian accessibility and permeability to and through the town centre, thereby potentially offsetting negative effects.

Given the lack of any technical work on traffic flows for the three options impacts on air quality remain unclear. However, preliminary conclusions are that the proposed alteration to the High Street/ The Green under Option 3 will provide the opportunity for more free flowing traffic thereby reducing congestion on the local road network and increase the potential for cycling and walking with potential positive effects on air quality. The role of walking in delivering sustainable transport patterns, should not be underestimated. Improving the pedestrian environment has many benefits, notably; helps regenerate town centres, contributes to natural surveillance- thereby reducing opportunities for anti-social behaviour, improved human health and reduced traffic congestion.

Table 4.1: Options Assessment Results

Options

Option 1: Composite Redevelopment Minimal Re-alignment

Option 2: Composite Redevelopment Partial Re-alignment

Option 3: Composite Redevelopment Full Re-alignment

Theme	SA Objective	1	2	3	Assessment Comments
Economic Factors	Improve Houghton Regis's economic performance	✓✓	✓✓	✓✓	<p>All options are likely to improve Houghton Regis's economic performance, through the provision of increased retail, office and leisure floorspace.</p> <p>There is no significant variation amongst the three options in terms of net new floorspace, however Option 3 scores best with an estimated 10,140 sq.m of retail floorspace and 12,410 sq.m of new office space. Option 1 performs second best with 9,858 sq.m of retail floorspace and 12,710 sq.m of office space and option 2 third best with 9,358 sq.m of retail floorspace and 11,470 sq.m of office space.</p> <p>High quality residential and commercial development under all three options could lead to indirect commercial benefits as well as increasing Houghton Regis's ability to attract inward investment and its marketability.</p>
	To enable a variety of quality employment opportunities	✓✓	✓✓	✓✓	<p>There is much commonality among the three options in relation to provision of employment opportunities. All options support employment growth in terms of the provision of space/premises for employment uses in key locations. All options are expected to provide significant direct benefits in terms of inward investment and economic competitiveness. All options are expected to provide direct benefits to the leisure sector.</p> <p>The proposed Community and Health facilities under all three options will provide for further employment opportunities.</p>
Social Factors	Improve access to services	✓✓	✓✓	✓✓	<p>Accessibility is clearly a key consideration in the distribution of employment opportunities under all options, with public transport linkages to the employment sites.</p> <p>All three options include an element of mixed use and have the potential to improve access to jobs and opportunities locally.</p> <p>All options incorporate the new Library and Community Centre and Health Centre, although this would have gone ahead without the SPD. While the Library is a replacement for the existing, the Health and Resource Centre is an additional community facility for Houghton Regis. While there are opportunities for all options to include premises for new community services, only Option 3 specifies a location for a new civic use and therefore scores higher on this factor.</p>

Theme	SA Objective	1	2	3	Assessment Comments
					Mix of housing types and tenure has not been considered. The draft SPD should consider the diversity of the proposed housing stock and desired housing types and tenure should be outlined. for the remaining Quarter's are not defined
	Enhance community identity and participation	✓	✓	✓✓	<p>All options go some way to creating a new identity for Houghton Regis. The provision of new high quality public spaces under all three options will enhance human health and wellbeing by providing areas where people can walk, socially interact and encourage community gathering.</p> <p>It is considered that option 3 creates the highest quality public space as the proposed open space at Church Square is set back from the High Street.</p> <p>All options will be subject to stakeholder consultation, with the Draft SPD subject to a 6 week public consultation, with a number of drop in exhibitions.</p>
	Reduce both crime and fear of crime	✓	✓	✓	<p>All options ensure that both existing and new areas of public realm will be addressed by active frontage development, which will improve natural surveillance thereby helping reduce crime, fear of crime and deter anti-social behaviour.</p> <p>In addition, all options provide mixed use development, including leisure and restaurant uses which will contribute to passive surveillance of streets, spaces and parking.</p>
Transport	To facilitate modal shift	0	0	✓	<p>All three options will result in greater mixed use activity and will provide an opportunity for local residents to work and access facilities locally. The increase in local employment opportunities under all options will encourage local residents to walk or cycle to their place of work.</p> <p>All options will be able to accommodate the Luton Dunstable Busway along the High Street, if required. By pulling the main traffic route southwards, option 3 enables a new space for bus stops / pull-in areas on Bedford Road, the potential Luton Dunstable Busway route. Thereby offering the best opportunity out of the three options to encourage modal shift to public transport and cycling.</p> <p>It is considered that all options will provide an improved pedestrian and cycle environment throughout the study area. In addition Option 3 provides a safe semi-pedestrianised street (likely to be service access only).</p>
	To reduce the average distance travelled to a suite of facilities	✓✓	✓✓	✓✓	<p>The mixed use development under all options promotes good access to public resources, good links to Bedford Square and local transport routes. The regeneration of Bedford Square and its immediate surrounding area will result in a wider range of facilities being accessible to local residents. The additional residential units under all three options would be accompanied by a wider range of facilities and this in turn would encourage people to cycle and walk to them rather than driving to Dunstable or Luton. The mixed use areas would help reduce the average distance travelled to facilities.</p> <p>Footpath and cycle routes should be direct as possible from residential areas to local facilities.</p>
Population	To encourage	✓	✓	✓✓	There is no significant variation between the options in relation to

Theme	SA Objective	1	2	3	Assessment Comments
and Human Health	healthier lifestyles				<p>impacts on human health. High quality design under all options will help enhance the quality of life, social well being and human health.</p> <p>All options include the provision of a health centre which will help meet the health care needs of local residents.</p> <p>It is likely that option 3 will be the most beneficial in terms of improving health as it offers greatest employment potential (which is considered to be one of the key determinants of health, along with income, housing and community safety) as one which will reduce rates of worklessness and promote social inclusion. Option 1 is ranked second and option 3 third. The major health improvements that will occur as a result of the increase in employment will, however, display a lagged effect. Short term psychological health gains may be made if there are individuals who are taking up jobs after a period of long-term unemployment.</p> <p>All options will help ensure the provision of quality public spaces and improved access to these areas. This will enhance human health and wellbeing by providing an area where people can walk, socially interact and encourage community gathering.</p> <p>Improving pedestrian safety should be a key consideration in draft SPD development.</p>
Water	To protect, maintain and enhance water quality and limit water consumption	?	?	?	Not a specific consideration to date. However it is anticipated that the final SPD will incorporate information and guidelines on water conservation solutions. Water conservation solutions will not only help achieve savings in water consumption but also reduced treatment requirements- with energy efficiency and cost benefits.
	Ensure new developments do not increase flood risk	?	?	?	To be completed once SFRA is obtained
Climatic Factors	Reduce the emissions of CO ₂ and other greenhouse gases	?	?	?	<p>Not a specific consideration to date. However, It is anticipated that the SPD will incorporate sustainable design and construction principles, which if implemented will have positive impacts on greenhouse gas emissions. It is also recommended that the SPD adopts energy efficiency requirements for new developments.</p> <p>Option 3 performs well owing to the potential for an increase in modal shift to more sustainable modes of transport resulting from the pedestrian-orientated town centre and new High Street Bypass which will potentially result in more free flowing traffic thereby</p>

reducing congestion on the local road network. However increase town centre use under all options could lead to congestion on the local road network and increased CO₂ emissions. Mitigation in the form of improved bus, cycle and pedestrian facilities and measures to ensure modal shift will be required in the final SPD.

The increased modal share of public transport will be the key to reducing carbon dioxide emissions.

Proposals for planting trees and vegetation under all options will

Theme	SA Objective	1	2	3	Assessment Comments
					help provide shading which will reduce the need for air conditioning and will help reduce greenhouse gas emissions.
	Ensure development is Climate Change proof	?	?	?	<p>Not a specific consideration to date. Detailed design considerations should focus on impacts associated with hotter, drier summers, drought and wetter winters – including designing with climate, measures do reduce pressure on water resources.</p> <p>It is anticipated that the SPD will incorporate sustainable design principles to address climate change, such as resistance to flooding, wind proofing, robust materials etc</p>
Air Quality	Achieve good air quality	x	x	✓	<p>Transport is a key source of pollutants to air. Traffic flows for the three options have not been forecasted, thereby a comparison of the three options with one another could not be undertaken. Forecasted traffic flows for the preferred option will be required so that a judgement on further congestion on the local road network can be made.</p> <p>All three options include mixed use development, which could lead to a decrease in modal share of the car. Options 1 and 2 will not result in significant changes to the existing road layout, thereby an improvement to the existing congestion situation on the High Street and Bedford Road is unlikely, thereby local air quality is likely to continue to deteriorate.</p> <p>The proposed alteration to the High Street/ The Green under Option 3 will provide the opportunity for more free flowing traffic thereby reducing congestion on the local road network. However increase town centre use could lead to further congestion on the local road network.</p> <p>Improved public transport efficiency and improved pedestrian environment is a key consideration under option 3, with the option based on a pedestrianised high street and improved public transport facilities along Bedford Road and the High Street bypass, which forms a focus of development. An increase in modal share of public transport and other modes of sustainable transport will result in a reduction in greenhouse gas emissions due to less car based journeys.</p> <p>Measures to support sustainable travel and reduce impacts of traffic on surrounding residential areas should be promoted in the final SPD.</p>
Material Assets	Maximise the use of previously developed land and buildings	✓✓	✓✓	✓✓	<p>All three options perform well against this objective as all options focus on development on brownfield land and bringing under-utilised land back into productive use. However, the proposal under option 3 to place a new residential frontage onto The Green would result in loss of an area of greenfield land.</p> <p>The option for a long term realignment of the High Street implied by Option 3 would require some land take.</p>
	To use natural resources efficiently	?	?	?	<p>Not a specific consideration to date. However, It is anticipated that the draft SPD will incorporate guidelines and principles on sustainable design and construction and in addition it is anticipated that both locally resourced and recycled materials will be encouraged. The draft SPD appraisal will assess if these issues have been taken forward as part of SPD development.</p>
Biodiversity	To protect	0	0	0	There are no environmental designated sites within the study area.

Theme	SA Objective	1	2	3	Assessment Comments
	and enhance biodiversity				Under option 3, an area of The Green will be lost to development, which could lead to development of sites that may have biodiversity value. All options provide tree planting along the High Street and in public spaces, with option 3 providing the most opportunities for landscaping.
Cultural Heritage	Maintain and enhance the historic environment and cultural assets	?	?	?	<p>The height and massing of new buildings have not been identified, thereby impacts on the setting and views of Houghton Regis's cultural assets, including All Saints Church is uncertain at this stage. However the view of the Church from The Green is lost under all options, although design considerations could be incorporated to address this. New views of the Church from Tithe Farm Road are created, improving legibility for visitors. The setting of the Listed Red House may also be detrimentally affected with new development at its rear, although could be overcome through high quality design and landscaping.</p> <p>It is considered that overall the quality open space and widespread public realm improvements under all options will improve the settings and features of the places of historical interest. This will result in positive synergistic effects for townscape and the economy.</p> <p>Proposals to reduce traffic along the High Street in option 3 will be beneficial for the setting of 104-106 High Street a Grade II listed building.</p>
Townscape	Maintain and enhance the townscape character and distinctiveness	?	?	?	<p>It is considered all options enhance the townscape character of Houghton Regis, as all create a legible, pedestrian and cyclist friendly High Street and retail area, with building frontages that address the public realm.</p> <p>Historic buildings are incorporated into the High Street and generally respected in terms of adjacent buildings. Local distinctiveness will improve as a new retail and service centre will be created that will increase choice for all and create a new heart to the town centre.</p>
Landscape	To conserve and enhance landscape character	?	?	?	<p>As outlined in the Heritage section impacts on existing buildings and the surrounding landscape is unclear at this stage. The height/massing of new buildings are unclear. If the height of new developments does not respect the landscape and townscape and if not sensitively located proposals could have detrimental visual impacts on the surrounding landscape. It is important to protect and enhance Houghton Regis's landscape/townscape as it acts as an important lure for new residents and businesses.</p> <p>All options provide landscaping along the High Street and in public spaces, with option 3 providing the best opportunities for landscaping. In all options, planting programmes will respect native species and character.</p>
Soil	Minimise the loss of valuable soils to development	✓	✓	✓	Given the majority of the study area is brownfield land it is unlikely that the development proposals will result in significant impacts on soil resources. However, proposals to develop a small area on The Green, could impact on soil resources.
Planning Policy	Achieve consistency	✓✓	✓✓	✓✓	All options are consistent with national, regional and local planning policy. All options are consistent with the requirements of the

Theme	SA Objective	1	2	3	Assessment Comments
	with national, regional and local planning policies				<p>MKSMSRS. The MKSMSRS states,</p> <p>“Luton / Dunstable / Houghton Regis, where the emphasis should be on building the principal growth towns into a vibrant, culturally diversified conurbation with a major improvement in the local economy and skills base, and capacity to meet housing need. This should be achieved through economic regeneration across the urban area...”</p>

6 Task B3: Predicting the Effects of the SPD

6.1 *Introduction*

Following consultations on the Options, a Preferred Option was developed based on a variation of Option 3, which forms the basis for the SPD. This stage covers the prediction and evaluation of the economic, environmental and social effects that will potentially arise as a result of the implementation of the SPD.

6.2 *Appraisal Approach*

The appraisal of the SPD has been undertaken using the SA framework developed at the Scoping Report stage. The appraisal of the Preferred Option from the draft SPD stage has been modified and updated to reflect the changes made to this option in the SPD.

The SPD has been scored against its compliance with the objectives and the predicted impacts and key assumptions are set out in the appraisal comments column. The 'Do Nothing' scenario (continuation of existing national, regional and local planning policy) was also appraised. The appraisal results are set out in table 5.1 below.

The performance of the SPD against the SA objectives was scored using the following six point scale:

Symbol	Description
✓✓	Significant positive effect
✓	Positive effect
0	Neutral (neither positive or negative)
?	Effect uncertain
x	Negative effect
XX	Signfinat negative effect

6.3 *Assessment Summary*

This section provides a summary of the key issues addressed in the appraisal framework. The full appraisal results are set out in Table 5.1 below. On the basis of the appraisal of the SPD, it is judged to have mainly positive effects on the sustainability objectives and no negative effects.

6.4 Economic Factors

The SPD performs particularly well in relation to the economic objectives. It provides a wide range of job and business opportunities, attractive sites for employment and measures to improve Houghton Regis town centre accessibility. Increased accessibility to town centre facilities and services through the realignment of the High Street, proposed Luton Dunstable Busway, HGV Restricted Zone and an enhanced pedestrian and cycle environment will improve quality of life, promote economic growth and enhance the town's image.

The proposed improvements and access to the town centre public spaces (Church Plaza, Bedford Square, Library Boulevard, Cumberland Square, High Street East and West) will bring commercial benefits and provide a good quality environment which encourages investment by helping to retain existing businesses and attracting potential investors to the town centre. The SPD makes provision for approximately 7,690m² of retail floorspace, 1,260m² of food superstore floorspace and 7,100m² of office floorspace.

The final SPD recognises the significance of town centre living to help strengthen the town's economy. However attention should be given to ensuring that the design and location of commercial uses do not impact on residential amenity in developing detailed proposals.

The proposed environmental and landscape enhancements, including establishing landmark features across the town centre will bring commercial benefits and provide a good quality environment which encourages wider regeneration and inward investment.

6.5 Social Factors

It is a key objective of the SPD to improve the town's connectivity. The accessibility to the town centre will be a key driver for the regeneration of the area. The implementation of the proposed traffic management measures and enhanced pedestrian and cycle environment throughout the study area will radically improve the regeneration prospects of the town centre and will help reduce traffic flows through Bedford Road and the High Street. Improved accessibility to the town centre will improve access to a range of job opportunities, thereby improving job prospects, which would provide strong support for social inclusiveness objectives. Improved pedestrian and cycle access will help minimise vehicular traffic growth and would in turn support

social inclusiveness (by increasing access to the town centre for non-car owners), health and air quality objectives.

Details of the proposed mix of housing and tenure are not yet available. These need to be related to wider Growth Area for which the Core Strategy is still at Issues and Options stage. Housing is a key driver to revitalisation and is an essential community need. A variety of housing is required in the town centre and details of housing mix and tenure will need to be worked up and integrated with the overall Core Strategy phasing and delivery plan.

The provision of enhanced and new public spaces at Bedford Square, Library Boulevard, Cumberland Square, High Street East and West, The Green and the Church Plaza not only provides access to open space to those who do not have private gardens but also contributes to a feeling of well-being and encourages community and family interaction by providing an area where people can walk and socially interact.

6.6 ***Air Quality***

There is some long term uncertainty regarding the prospects for a potential substantial increase in traffic levels as the scale of activity at the town centre and in the wider growth area increases. The SPD includes new or improved transport infrastructure to cope with future growth and to relieve existing congested areas but it is unclear whether these benefits will be offset by an overall increase in traffic volumes. The SPD seeks to achieve a balance between the need to encourage regeneration and economic activity, which may stimulate further traffic growth, with the provision of new transport infrastructure to accommodate that growth, and the need to provide for improved public transport and pedestrian facilities. If implemented the potential Luton Dunstable Busway extension and an improved pedestrian and cyclist environment across the town centre will help deliver more sustainable patterns of movement, thereby reducing air quality impacts. The outcomes for traffic emissions and air quality are uncertain at this stage and careful monitoring and management will be required to break the link between economic activity and transport growth.

6.7 ***Climatic Factors***

The SPD scores strongly under this objective as it promotes renewable energy production and minimising resource consumption through green roof technology, passive solar energy design, water and energy conservation

techniques and the requirement of development to achieve all 16 Lifetime Homes Standards, Building for Life criteria (minimum silver standard-14 of the 20 criteria) and to meet the Government's Code for Sustainable Homes, level 3. The SPD also encourages public transport and promotes mixed use developments in accessible locations with improved public access which will contribute to a reduction in car use and vehicle emissions.

Green roofs have many environmental and community benefits. They significantly reduce the amount of rainwater runoff created by rooftops and thereby help reduce flood risk and improve local water quality. Green roofs can help keep buildings cooler in summer and warmer in winter, providing a layer of insulation that also helps reduce energy demands.

6.8 Population and Human Health

In general, it is considered that the development proposals will have a positive impact on human health. The new jobs which are likely to be created will help to address socio-economic needs in the wider area. Economic development and the subsequent employment created are important for promoting social inclusion and the creation of neighbourhood social cohesion⁶.

The SPD encourages healthy lifestyles by promoting mixed use development in the High Street and in Parcels E and D. This will contribute to the viability and self sufficiency of the town centre, will reduce the need to travel and average journey distances and will increase the potential for cycling and walking. Improved public spaces will also enhance human health, wellbeing and community cohesion by providing an area where people can walk and socially interact.

6.9 Water

Although the assessment has highlighted the potential negative effects on water resources, air quality and noise pollution resulting from the construction of the Bedford link road and the removal of the existing High Street carriageway. It is anticipated that the application of modern principles and standards to new development, the use of modern methods of construction

⁶ Letki N (Forthcoming) 'Does Diversity Erode Social Cohesion? Social Capital and Race in British Neighbourhoods', Political Studies.

and environmental standards will reduce these identified risks to water resources, noise and air pollution.

Table 5.1: Final SPD Assessment Results

SPD

Adopt the Houghton Regis Town Centre SPD

Business as Usual

Continuation of exiting national, regional and local planning policy.

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
Economic Factors				
Improve Houghton Regis's economic performance	✓✓	<p>The SPD supports employment growth in terms of provision of space/premises for employment uses in key accessible locations. It proposes new retail floorspace and office floorspace, which will support business development and employment generation.</p> <p>The SPD proposes improved linkages and accessibility to and throughout the town centre which will enhance the marketability of the town centre and promote inward investment in to Houghton Regis. The promotion of office, retail and leisure will also help attract investment in the area.</p>	x	Under do nothing, there is unlikely to be any change from the existing situation- poor access and permeability to and through the town centre will limit potential for economic growth.
To enable a variety of quality employment opportunities	✓✓	<p>The proposed development floorspace of 7,690m² of retail floorspace, 1,260m² of food superstore floorspace and 7,100m² of office floorspace will promote employment opportunities.</p> <p>The new Library/Community Centre will provide for further employment opportunities.</p>	x	The town's high unemployment rate compared to the rest of South Bedfordshire is likely to continue.
Social Factors				
Improve access to services	✓	A combination of the proposed mixed use, incorporating residential, office and retail and the improvements in access that will result from the signalisation of High Street-Tithe Farm Road roundabout junction, removal of traffic from the High Street and encouraging more sustainable modes of transport, will promote social inclusion and access to jobs and services.	x	Existing policies have proved unsuccessful in stimulating social regeneration.
Enhance community identity and participation	✓✓	The SPD has the potential to fundamentally transform the identity of the town centre. This will help encourage civic pride and build community involvement.	x	Existing policies have had limited success in stimulating community identity
Reduce both crime and fear of crime	✓	High quality design promoted throughout the SPD not only helps enhance the quality of life, social well-being and human health but it can also help reduce crime, fear of crime and deter anti-social behaviour. Improving pedestrian and cycling facilities will contribute to passive surveillance of streets, spaces and parking.	x	The do nothing option may result in the continued instances of crime and vandalism in and around the town centre.
Transport				

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
To facilitate modal shift	✓	<p>The SPD seeks a balance between minimising congestion and the need to encourage ease of access to the town centre. It promotes alternatives to the car, through the promotion of the Luton Dunstable Busway extension, improved bus services along Tithe Farm Road and The Green. The proposed enhancements to the cycle network along Redhouse Court and to the pedestrian environment on the High Street, Cumberland Street and Clarkes Way and "walking school bus" will help reduce the reliance on the private car.</p> <p>The Controlled Parking Zone would help discourage car use and the promotion of mixed use development through the town centre will also help reduce the demand for travel. However the provision of two car parks at the eastern and western ends of the town centre arguably may encourage the use of private cars.</p> <p>Overall it is considered if the above schemes are implemented there is a significant opportunity to facilitate modal shift. To further add to the robustness of the SPD, it is recommended that traffic flow forecasts along the key routes should be calculated as the proposals are taken forward.</p>	x	Continued congestion along the High Street and Bedford Road. This trend is likely to be exacerbated by future Growth Area traffic.
To reduce the average distance travelled to a suite of facilities	✓✓	<p>The mixed use development proposed in the SPD promotes improved sustainable access to services and facilities.</p> <p>The regeneration of Bedford Square (Parcel D), the High Street (parcels A1 and B1) and the co-op site (parcel E) will result in a wider range of facilities and services being accessible to existing and future residents.</p>	x	Continued poor pedestrian accessibility and poor cycle links
Population and Human Health				
To encourage healthier lifestyles	✓	<p>The SPD can significantly contribute to the protection and enhancement of human health by promoting walking and cycling. Mixed use development will increase the potential for cycling and walking. An improved pedestrian environment along the High Street and new cycleways along Redhouse Court linking to the existing cycle network have been proposed thereby encouraging more sustainable modes of travel.</p> <p>The increased employment opportunities are likely to result in psychological health gains if the jobs are taken up by individuals who have been long-term unemployed.</p> <p>Increasing energy efficiency of houses will reduce energy costs resulting in positive impacts on human health and well-being.</p> <p>Implementation of the public transport proposals should help reduce air pollution resulting in positive impacts on human health and will also contribute to a feeling of well-being.</p> <p>Implementation of the SPD will help ensure the provision of quality public space and improved accessibility to The Green which in turn will enhance human health, community cohesion and wellbeing by providing areas where people can walk, socially interact and participate in physical exercise. The revitalisation of the children's play area on The Green will encourage child physical activity.</p>	x	Continued poor pedestrian and cycle accessibility and unemployment rate unlikely to improve.
Water				
To protect,	✓	The efficient use of water resources is a prevailing issue. Sustainable	x	Limited emphasis on

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
maintain and enhance water quality and limit water consumption		<p>drainage solutions which are required by the SPD will help reduce water pollution associated with surface water run-off.</p> <p>The SPD requirement for all homes to meet the Government's Code for Sustainable Homes, level 3 will help achieve savings in water consumption through the incorporation of water conservation measures.</p> <p>The proposed mixed town centre uses should pose less risk to water quality than the existing industrial uses.</p> <p>Surface runoff from the site during the construction of the Bedford link road and the removal of the existing High Street carriageway could impair water quality if an appropriate drainage treatment scheme is not put in place before construction commences.</p>		use of natural resources
Ensure new developments do not increase flood risk	?	<p>Impacts on flood risk are unknown at this stage, pending the results of the SFRA.</p> <p>Proposals for grass verges, tree avenues, shrub planting, green roofs will help the mitigation of storm run off in the town centre. Provision of porous surfaces can help reduce storm water run off and increase rainfall capture which will help reduce the risk of flooding. In addition trees can provide an important carbon sink- (trees have capacity to absorb carbon dioxide)</p>	?	
Climatic Factors				
Reduce the emissions of CO ₂ and other greenhouse gases	✓✓	<p>The SPD scores well under this objective. It requires all development in the town centre to meet all 16 Lifetime Homes Standards, Building for Life criteria (minimum silver standard-14 of the 20 criteria), the Government's Code for Sustainable Homes, level 3. Non residential developments are also required to consider renewable energy production.</p> <p>The high standards of environmental performance for developments will contribute to reducing CO₂ emissions, assisting in meeting the Government's target of cutting CO₂ emissions by at least 60% by 2050. Opportunity for innovation in relation to energy efficiency should be embraced when designing the residential areas (enabling the town centre to become a benchmark for energy efficiency in the growth area.</p> <p>Promoting public transport and the requirement for all new commercial buildings to incorporate Green Travel Plans will have a positive impact on climate change-reduction in greenhouse gas emissions due to less car based journeys. However there is uncertainty about the potential effects for the prospects of increased car use associated with the development proposals.</p> <p>Planting of trees and vegetation will help provide shading which will reduce the need for air conditioning and will help reduce greenhouse gas emissions.</p>	x	Limited consideration of sustainable development principles and the use of natural resources and generation of sustainable energy.
Ensure development is Climate Change proof	✓	The SPD addresses the issue of energy consumption of buildings through a number of required measures, including building orientation to maximise natural ventilation, shading and daylight for solar gain. All these measures will help reduce the need for air conditioning in the	x	

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
		summer and electrical heating systems in the winter thereby helping to reduce greenhouse gas emissions and will also have benefits in terms of reducing maintenance costs.		
Air Quality				
Achieve good air quality	?	<p>Transport is a key source of pollutants to air. Promoting sustainable forms of transport, improving public transport services and requiring all new commercial buildings to incorporate a Green Travel Plan will help reduce carbon dioxide emissions and improve air quality. The increased modal share of public transport will be the key in reducing emissions.</p> <p>The SPD includes proposals to improve the pedestrian environment in the High Street and cycle routes to the town centre this will in turn encourage people to use more sustainable modes of transport which will help reduce carbon dioxide emissions with benefits to both air quality and human health.</p> <p>Increasing renewable energy use and energy efficiency will help reduce air pollution by reducing carbon emissions. The proposed HGV Restricted Zone on the High Street would also have positive effects on local air quality and increasing tranquillity.</p> <p>Air and noise pollution could arise from construction of the Bedford link road and the removal of the existing High Street carriageway resulting in negative impacts on air quality and human health.</p>	x	Under the do nothing option the local air quality will continue to deteriorate.
Material Assets				
Maximise the use of previously developed land and buildings	✓	The SPD focuses on the regeneration and redevelopment of the existing town centre hence the majority of development is on previously developed land and buildings. Achievement of the long term objective of realignment of the High Street may have land take implications.	x	The do nothing option will fail to fully utilise the under-used and brownfield land.
To use natural resources efficiently	✓✓	<p>The SPD requires applicants to use energy efficient construction materials, sustainably sourced materials and recycled materials.</p> <p>Water conservation and sustainable drainage solutions such as water saving devices, grey water recycling will have positive effects on water resources in the District. Protecting water resources will also be extremely beneficial for biodiversity, soil resources and the landscape.</p> <p>The level 3 Code for Sustainable Homes target will ensure that waste storage, household recycling and composting facilities will be provided. This SPD target for new developments will help reduce waste, the carbon footprint of developments and road miles – less waste is produced and more waste is recycled on site, resulting in less waste requiring disposal.</p>	x	The do nothing option is unlikely to increase the amount of waste that is produced or recycled.
Biodiversity				
To protect and enhance biodiversity	✓	The SPD encourages the use of renewable resources, brown field sites, recycled materials, energy and water efficiency techniques, sustainable drainage solutions, waste minimisation and recycling. These sustainable practices could have significant environmental benefits for South Bedfordshire's environment. Its approach to waste minimisation and recycling will help reduce the use of landfill which will benefit landscape, tranquilly, water and soil quality.	0	Under the do nothing option there would be no significant change from the existing situation.

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
		<p>Protecting water resources and quality will be beneficial to biodiversity, soil resources and consequently for the overall landscape of the district.</p> <p>However inappropriate renewable energy schemes could have a significant adverse effect on landscape and biodiversity</p> <p>Tree planting along the western side of The Green, further tree and shrub planting on The Green, an enhanced green structure in the High Street, including grass verges, tree avenues, and ground cover shrub planting and green roofs throughout the study area will enhance biodiversity and the quality of life.</p> <p>The potential to promote links between Houghton Hall Park and The Green has been recognised within the SPD, these improved links will help form a multi-functional network of open spaces.</p>		
Cultural Heritage				
Maintain and enhance the historic environment and cultural assets	✓	<p>Improvements to the town centre's public realm will improve the quality of the built environment. The SPD performs well against this criterion. Respecting and enhancing Houghton Regis's historic character is a key consideration underlying much of the strategy. The development proposals respect and are sensitive to building heights of the surrounding area, as well as protecting the views of All Saints Church, the setting back of the upper floors in Parcel E will maintain and respect the views to the church. New views of the Church from Tithe Farm Road have also been proposed. The creation of the Church Plaza- a multi-functional community space will enhance the setting of the Church.</p> <p>The management of the car park in front of the Church will help to ensure sympathetic of the key space in the town centre, enhancing the cultural heritage of the town.</p> <p>Limiting the height of new buildings to 2 and 3 storeys will help respect the existing built environment. In particular limiting heights of buildings overlooking the Church, Library Boulevard and Tithe Farm Road to 3 storey will help protect the views of the Church. The Listed Buildings and their settings have all been protected and incorporated into the preferred option approach.</p> <p>The improvements in town centre access that are proposed will have a positive knock on effect by increasing access to the cultural features located in the town centre.</p> <p>Proposals to reduce traffic along the High Street and encourage modal shift will be beneficial for the setting of cultural heritage features.</p>	X	The continued decline town centre activity could result in the degradation and neglect of the historic buildings
Townscape				
Maintain and enhance the townscape character and distinctiveness	✓	<p>The SPD performs well under this objective. The promotion of innovation and a high standard of design is a key theme of the draft SPD.</p> <p>The use of public art and new landmarks such as the new water feature at Houghton Hall Park and the removal of the industrial uses along the High Street will contribute towards local character and distinctiveness,</p>	0	Do nothing would result in little visual change from the existing condition.

Sustainability Objective	SPD	Commentary	Business as usual	Commentary
		and would enhance the townscape.		
Landscape				
To conserve and enhance landscape character	✓	The SPD development proposals will not impact on views of the wider countryside. Local landscape features in Houghton Hall Park and the High Street will be enhanced by new planting proposals. Waste minimisation and recycling will help reduce the amount of waste going to landfill thereby reducing the need for landfill sites with positive effects on the conservation of the wider landscape.	0	Do nothing would result in little visual change from the existing condition.
Soil				
Minimise the loss of valuable soils to development	✓	Given the majority of the study area is brownfield land it is unlikely that the preferred option development proposals will result in significant impacts on soil resources.	0	The Do minimum is unlikely to have an impact on soil resources.

6.10

Cumulative Effects

The SEA Directive includes a requirement to examine the duration, frequency, cumulative and synergistic effects of policies and proposals. The potential cumulative impacts of the implementation of the SPD are outlined below: The assessment of the cumulative effects of the final SPD were classified using the following significance scale:

Description
Major Positive
Positive
Neutral (neither positive or negative)
Uncertain
Negative
Major Negative

Abridged SA Objective	Cumulative and synergistic effects
Economic performance	The SPD makes a significant contribution to economic objectives by providing for a wide range of land and premises for employment uses in a variety of attractive and accessible locations resulting in significant cumulative effects for social and health objectives. However increased economic activity could lead to extra traffic growth and car emissions with negative short, medium and long term effects on human health, air quality.
Variety of employment opportunities	Implementation of renewable energy solutions and energy and water efficiency will help reduce maintenance costs for businesses.
Access to services	The SPD make a strong contribution to supporting economic growth by providing transport infrastructure which is targeted to improving accessibility to the town resulting in positive cumulative effects for social and health objectives.

Abridged SA Objective	Cumulative and synergistic effects
Community identity and participation	Implementation of the SPD could significantly transform the identity of the town centre. Increased energy efficiency will reduce running and building maintenance costs and thereby helping to reduce fuel poverty with synergistic medium and long term positive effects for social and economic objectives and indirect benefits to human health and air quality.
Crime and fear of crime	The SPD will help foster high quality design which in turn will help reduce crime and fear of crime, with medium and long term benefits. This is of particular importance because anti social behaviour and crime could increase due to the anticipated levels of growth and increased town centre accessibility.
Modal shift	Alternative transport to the car is deemed crucially important in addressing the issue of air pollution that results from high dependency on private vehicles and congestion. The SPD includes a range of measures designed to reduce town centre traffic congestion, and to promote alternatives to the car, including public transport, walking and cycling resulting in positive synergistic effects for health and townscape.
Average distance travelled to	The mixed use development proposed in the SPD will reduce average distance travelled to services and facilities with positive medium and long synergistic effects on human health and air quality.
Healthier lifestyles	Implementation of the SPD is likely to have significant short, medium and long term positive effects on human health objectives. Promoting sustainable modes of transport such as cycle, pedestrian, public transport and improving the quality of public spaces will have significant short, medium and long term positive synergistic impacts on human health and air quality.
Water quality and water consumption	<p>Water conservation and sustainable drainage solutions will have short, medium and long term positive effects on water resources.</p> <p>Sustainable drainage solutions required by the SPD will have short, medium and long term positive effects on water quality.</p>
Flood risk	<p>The successful implementation of the sustainable transport solutions and renewable energy measures outlined in the SPD will have short, medium and long term positive effects on flood risk. Reduction in greenhouse emissions will have significant positive effects on climate change and will therefore help reduce the risk of flooding.</p> <p>A final judgment can not be made on the SPD impacts on flood risk until the results of the SFRA are made available.</p>
CO₂	The SPD scores strongly under climate change objectives as it promotes renewable energy production and water and energy efficiency which in turn will have positive cumulative impacts on environmental objectives and health.
Climate Change proof	The SPD will have medium and long term positive effects on helping to reduce carbon dioxide emissions both on a local and global scale. The SPD will help reduce the carbon footprint of new developments.
Air quality	The SPD includes a range of measures designed to reduce town centre traffic congestion which will result in positive cumulative effects for biodiversity and health however there is uncertainty about the prospects for an increase in cars in the longer term
Previously developed land and buildings	The development within the town centre will be on brownfield land, which will help to conserve soil resources elsewhere and will have indirect positive effects on landscape. Brownfield sites may contain species of biodiversity interest but these can be accommodated in detailed site proposals.

Abridged SA Objective	Cumulative and synergistic effects
Natural resources	Water conservation and sustainable drainage solutions will have short, medium and long term positive effects on water resources. The SPD also requires developers to consider use of thermal mass materials, recycled materials and sustainably sourced materials which will have synergistic positive medium and long term benefits for biodiversity, soil resources and landscape. The proposed level of development has the potential for cumulative negative impacts on waste levels.
Biodiversity	The SPD has been designed to enhance the town's biodiversity offer with synergistic, positive medium and long term effects for landscape and economic investment.
Historic environment	The SPD safeguards and enhances the town's historic buildings resulting in positive cumulative effects for townscape and the economy.
Townscape character	The promotion of innovation and a high standard of design will result in positive cumulative/synergistic effects for the economy, cultural heritage and townscape. The parking management strategy in the SPD will help manage car parking near the church and ensure parking for the less able people. In addition it will contribute to enhance the cultural heritage of the town centre, thus having a synergistic positive effect.
Landscape character	The anticipated increase in waste recycling rates will help reduce the amount of waste being sent to landfill which will have significant medium and long term benefits on South Bedfordshire's landscape with indirect positive effects on biodiversity and air quality.
Soils	Implementation of the SPD is likely to have short, medium and long term positive effects on soil quality. The increase in recycling and use of low environmental impact materials will help reduce soil pollution.

On the basis of the evaluation of the potential effects of the SPD, it is judged to have mainly major positive or positive cumulative effects and no major negative effects on the sustainability objectives. However it is recognised that increased economic activity could lead to extra traffic growth and car emissions with negative cumulative effects on the economy, human health and air quality. It is envisaged that the potential negative cumulative effects identified above can be mitigated through the recommendations and mitigation measures outlined throughout this report.

The implementation of the SPD will result in mostly local effects but the anticipated reductions in greenhouse gases and carbon dioxide emissions is likely to result in positive effects on both a local and global scale.

7 Task B5: Mitigation Measures

7.1 *Introduction*

Overall the SPD is judged to have mainly positive effects on the sustainability objectives. However it is considered that the performance of the SPD can be enhanced through the application of a range of mitigation measures and recommendations. These are described below. A number of these recommendations can also be incorporated into the emerging Luton and South Bedfordshire Core Strategy.

7.2 *Policies and Supporting Initiatives*

In order to encourage and promote sustainability across the wider growth area a number of policies and supporting initiatives should be included in the Core Strategy;

- Policy support for sustainable design, demolition and construction techniques in all forms of development across all DPDs; and
- Policies supportive of energy efficiency, local energy production and increasing the use and generation of renewable energy and use of heat from Energy from Waste facilities.

7.3 *Economic Factors*

- Implementation of the SPD should encourage initiatives which develop and promote the local recycling economy and the market for recycled materials;

7.4 *Population and Human Health*

- Care will need to be taken to ensure that routes for walking and cycling are carefully maintained;
- Provision of cycle parking and storage specificity in relation to the High Street and the employment areas should be considered; and
- Planning approvals should incorporate appropriate mitigation for the construction period, including working hour restrictions, the use of noise barrier.

7.5 *Material Assets*

- Measures to control light pollution should be explored;

- Implementation of the SPD should promote efficiency in the movement of demolition, construction and commercial waste (e.g. back loading); and
- Implementation of the SPD should include requirements for sustainable construction practices for all new build upon site.

7.6 Landscape and townscape

- Implementation of the SPD should encourage initiatives to encourage community involvement in the management of public open space, which will increase stewardship; and
- Maintenance is critical to the ongoing success of green/open spaces. Implementation of the SPD should encourage applicants to include arrangements for maintenance in detailed development proposals.
- Detailed design needs to ensure renewable energy projects and recycling facilities are in keeping with the townscape character and of an appropriate scale and design.

7.7 Cultural Heritage

- There should be no direct impact upon sites of cultural heritage value, however, further detailed assessment and monitoring during the construction period should be a requirement; and
- Developers should consider the negative impacts both temporary and permanent of construction vibration. Construction techniques should be developed in consultation with English Heritage.

7.8 Social Factors

- Details of the proposed mix of housing and tenure should be developed as further progress is made on the Core Strategy DPD.

7.9 Water

Sustainable Drainage Solutions will require ongoing management, ideally these should remain in public ownership to ensure their integrity.

8 Task B6: Monitoring Proposals

8.1 *Introduction*

The SEA Directive requires that the significant environmental effects of the plan are monitored⁷. Monitoring of the SPD will help verify the performance of the SPD against the sustainable objectives.

The former ODPM's SEA Guidance states that monitoring should be based on the indicators which have been used to describe the baseline environment. Therefore it is proposed that the SA indicators outlined in the SA framework which were developed and consulted on during the LDF and SA SPD Scoping Report stages, will form the basis of the SPD Monitoring Strategy. The SA team has selected key priority indicators which should form the basis of any future Monitoring Strategy. The proposed monitoring indicators are outlined in Table 7.1 below.

Table 7.1 Proposed Monitoring Indicators

Topic	Potential Monitoring Indicator
Economic Factors	
	Gross Domestic Product per head, per worker
	People of working age in employment
	Population living in workless households (a) children (b) working age
	Percentage of people of working age who are economically inactive
	16-19 year-olds not in employment, education or training
	Number and survival of business start-ups
Social Factors	
	Social sector homes, vulnerable households in the private sector in homes below the decent homes standard
	Households living in fuel poverty containing (a) pensioners (b) children (c) disabled/long-term sick
	Percentage of households satisfied with the quality of the places in which they live (a) overall (b) in deprived areas
	Crime survey and recorded crime for (a) vehicles (b) domestic burglary (c) robbery

⁷ “**Annex 1 (i):** a description of the measures envisaged concerning monitoring in accordance with Article 10.
Article 10: Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.”

Topic	Potential Monitoring Indicator
	Fear of crime: (a) car theft (b) burglary (c) physical attack 19 year-olds with Level 2 qualifications and above
Water	
	Number of properties in areas at risk of flooding Rivers of good (a) biological (b) chemical quality
Air Quality	
	NH ₃ , NO _x , PM ₁₀ and SO ₂ emissions and GDP (a) Annual levels of particles and ozone (b) days when air pollution is moderate or higher Private car CO ₂ emissions, car-kilometres fabulous
Climatic Factors	
	Domestic CO ₂ emissions, domestic energy consumption and household spending Renewable electricity generated as a percentage of total electricity
Population and Human Health	
	Infant mortality: differences between socio-economic groups Life expectancy: differences in average life expectancy between local authority areas Healthy life expectancy (a) men and (b) women Death rates from (a) circulatory disease and (b) cancer, below 75 years and for areas with the worst health and deprivation indicators, and (c) suicides Prevalence of smoking (a) all adults (b) 'routine and manual' socio-economic groups Prevalence of obesity in 2-10 year-olds
Material Considerations	
	% new homes built on previously developed land
Cultural Heritage	
	Buildings of Grade I and II* at risk of decay

9 Task D1: Public Participation on the draft SPD and the SA Report

9.1

Introduction

In accordance with the SEA Directive, Article 6(2), appropriate authorities (statutory consultees), other stakeholders and the public were consulted on the draft SPD and the draft SA Report. This section reports on the results of that exercise.

Responses on both the SPD and the SA were received following a six week consultation period. The following table lists those responses (abridged) relevant to the SA Report and the action taken by the SA team as a result.

English Heritage Comments	Response
The SA report appears to be based on a fairly narrow definition of the historic assets of the area. An appraisal of the context and setting of the designated assets, including the archaeological interest, should inform the baseline.	The SPD was based on a thorough baseline analysis of the historic environment and the enhancement of local distinctiveness and the built environment are key objectives.
Whilst acknowledging that the options appraisal comments on the importance of setting, and views of the identified assets, the impact will depend on the height and massing of the new development.	Comment noted. The urban design strategy has considered building heights, massing and views
Referring to the assessment that the SPD will contribute positively to the cultural heritage, EH appreciates that the existing town centre requires significant change. How this is planned and executed could make the difference between a place that people enjoy and identify with, and one which is functional but fails to take opportunities for significant enhancement	Noted. The SPD is a strategic policy document, and this comment largely relates to detailed implementation issues.

No other comments on the SA Report were received.

10 Task D2: Appraising Significant Changes

10.1 *Summary of significant changes to the SPD*

This section comprises an appraisal of significant changes to the draft SPD made as a result of the consultations on the draft SPD and draft SA Report. The final version of the SPD represents an amended version of Option 3, the Preferred Option, which was assessed in the draft SA. The main changes made to the SPD from the earlier draft Preferred Option are summarised below:

1. The document was re-structured and a number of changes made to the wording of the Objectives, Issues and Options and Urban Design Strategy to aid clarity and understanding
2. The proposed area of housing on the Green was deleted, to be replaced instead with enhanced landscaping
3. New text was inserted in the Introduction on the need for further public and stakeholder engagement
4. New text was inserted identifying the requirement for a future parking and town centre traffic management strategy
5. Further explanation has been provided of the calculation of future retail capacity and need and a statement inserted that detailed applications will need to be accompanied by retail impact assessments

Of these only items (1) and (2) are considered to have any implications for the SA.

10.2 *Appraisal of the Changes*

In accordance with the SEA Directive and the SEA Guidance, the significant changes to the SPD need to be appraised. This appraisal is documented in section 5 and the changes made are recorded under the commentary column in Table 5.1 above. Although the proposed changes to the SPD do not alter the overall assessment it is considered that the deletion of the proposed housing on the Green would contribute further to the achievement of landscape objectives. The other changes made to the SPD either relate to points of clarification or to matters of detailed implementation and they do not affect the overall appraisal.

10.3 *Next steps*

This Sustainability Report will be submitted with the final SPD for adoption in early 2008. The Next steps relate to implementation of the SPD. Monitoring of

the effects of implementation and responding to adverse effects, as appropriate.