



Local Plan 2035
Planning for the future

**SUSTAINABILITY
APPRAISAL REPORT**

JANUARY 2018



Your Borough: Planning for the future

BEDFORD BOROUGH LOCAL PLAN 2035

SUSTAINABILITY APPRAISAL REPORT

Bedford Borough Council

January 2018

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1 Non-technical summary

Introduction

- 1.1 Bedford Borough Council is producing a new local plan which sets out the Council’s planning policies for the area. The Bedford Local Plan 2035, once adopted, will be the principal document of the statutory development plan for Bedford borough. (Other documents include the Minerals and Waste Local Plan Strategic Sites and Policies, 2014 together with those parts of the Allocations and Designations Local Plan, 2013 and Bedford Local Plan, 2002 that have not been withdrawn.)
- 1.2 One of the aims of the Council’s planning policies is to ensure that they contribute to sustainable development. This means balancing social, environmental and economic needs both now and in the future. To help ensure that the Bedford Local Plan 2035 is sustainable, a process called sustainability appraisal has been followed. The Sustainability Appraisal Report incorporates European Union requirements for the assessment of the environmental effects of certain plans and policies. This non-technical summary sets out a summary of the findings.

Baseline information and issues

- 1.3 ‘Baseline’ data was collected about the area for a range of economic, social and environmental matters. The data looked at the area as it is today. The following key issues were identified.

Sustainability issue	Evidence	Mitigation opportunities
Environmental		
Agricultural land	<ul style="list-style-type: none">• Increased demand for development.• Limited brownfield land available.	<ul style="list-style-type: none">• Avoid development of best and most versatile agricultural land.• Prioritise use of suitably located previously developed land.

Climate change	<ul style="list-style-type: none"> • Hotter, dryer weather will affect buildings and their occupiers. • Risk of energy shortages as demand increases. 	<ul style="list-style-type: none"> • Influence building design to enable natural cooling. • Locate development to minimise need to travel. • Encourage renewable energy generation.
Flood risk	<ul style="list-style-type: none"> • Buildings affected by increased risk of flooding. 	<ul style="list-style-type: none"> • Avoid inappropriate development in land liable to flood, taking account of climate change. • Adequate mitigation and resilience measures must be provided to ensure flooding does not occur on site or increase flooding elsewhere. • Mitigation measures and drainage schemes should be designed with due regard to climate change; amenity, biodiversity.
Water resources	<ul style="list-style-type: none"> • Limited water resource affected by climate change. • Increasing demand for water. 	<ul style="list-style-type: none"> • Influence building design to reduce water consumption of occupants. • Infrastructure improvements to increase supply. • Ensure that the Water Framework Directive status of waterbodies does not deteriorate and is improved where possible.
Air quality	<ul style="list-style-type: none"> • High levels of nitrogen dioxide in town centre. 	<ul style="list-style-type: none"> • Reduce traffic in town centre. • Influence building design to reduce exposure to poor air quality.
Traffic congestion	<ul style="list-style-type: none"> • Increased car use. 	<ul style="list-style-type: none"> • Increase opportunities for public transport, cycling and walking. • Enable non-essential traffic to avoid town centre.
River water quality	<ul style="list-style-type: none"> • Variable ecological status. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered.
Habitat loss and fragmentation	<ul style="list-style-type: none"> • Increased demand for development. • Condition of designated sites declining. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered. • Consider opportunities to increase and improve habitat provision.

Threats to heritage assets	<ul style="list-style-type: none"> • Increased demand for development. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered.
Economic		
Unemployment	<ul style="list-style-type: none"> • Pockets of higher levels of unemployment. 	<ul style="list-style-type: none"> • Ensure sufficient opportunities for employment in accessible locations.
Town centre	<ul style="list-style-type: none"> • Competition from neighbouring centres. • Some areas in need of regeneration. 	<ul style="list-style-type: none"> • Reduce number of vacant units in town centre. • Consider opportunities to regenerate sites. • Consider opportunities for environmental improvements.
Social		
Housing	<ul style="list-style-type: none"> • Increasing population. • Housing affordability. • Ageing population. 	<ul style="list-style-type: none"> • Ensure that more housing is available to meet needs. • Ensure provision of affordable housing. • Ensure provision of housing to meet specific needs.
Deprivation	<ul style="list-style-type: none"> • Pockets of higher levels of deprivation. 	<ul style="list-style-type: none"> • Ensure sufficient opportunities for employment in accessible locations.
Health	<ul style="list-style-type: none"> • Pockets of lower life expectancy and unhealthy lifestyles. 	<ul style="list-style-type: none"> • Consider opportunities to encourage cycling and walking. • Consider opportunities to increase provision of open space and other green infrastructure.
Social infrastructure	<ul style="list-style-type: none"> • Increasing population 	<ul style="list-style-type: none"> • Ensure sufficient provision of schools, community facilities, play space, etc.

The sustainability appraisal framework

1.4 In order to assess how the local plan contributes to sustainability, a set of sustainability objectives was developed. The objectives are as follows:

1. Ensure resilience to and reduce the effects of climate change through effective adaptation and mitigation.
2. Promote sustainable lifestyles, use resources efficiently, maximise recycling and re-use.
3. Conserve and enhance the built and historic environment, heritage assets and their settings.
4. Create, conserve, protect and enhance the borough's natural features, distinctive local environments, habitats and species.
5. Promote strong, sustained and balanced economic growth, stimulating job creation across a range of sectors.
6. Improve the skills of the labour force, matching skill outcome with market needs.
7. Create a distinctive, attractive and multi-functional town centre.
8. Meet the needs of a changing population.
9. Reduce levels of deprivation, inequalities and exclusion.
10. Promote community involvement in place-shaping, promote healthy and safe communities.
11. Promote a strong local identity and sense of place.
12. Minimise growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport.

1.5 The sustainability appraisal framework also comprises a series of indicators which are designed to enable an indication of the effect of a policy or proposal on sustainability to be identified.

Options for the amount of growth

1.6 The starting point for considering the amount of growth is the National Planning Policy Framework requirement for local planning authorities to provide for "the full, objectively-assessed needs for market and affordable housing" (paragraph 47). Issues and options papers produced by the Council from 2014 considered the level of this need, which increased as new information became available and the period to be covered by the local plan changed from 2012-2032 to 2015-2035. A number of options for the amount of growth to be provided in the local plan, including a 'do nothing' option, were tested against the sustainability appraisal framework to identify the effects of each option.

1.7 Testing showed that there were likely to be negative effects on climate change, the use of resources, natural features and car use. However, there were also likely to be positive effects on the delivery of new homes, infrastructure, services and

facilities, and supporting strong local economic growth, helping to reduce deprivation. A 'do nothing' option was shown not to perform well. No positive effects were identified and there were several negative effects, particularly as a result of the lack of economic growth, the lack of additional housing to meet the needs of the population and the likelihood of an increase in commuting to neighbouring areas for work, shopping and services.

Options for the distribution of growth

- 1.8 Initial options for the distribution of growth to meet the borough's needs for the period 2012-2032 were considered in an Issues and Option paper published in 2014. The paper included five broad options for distributing growth that were tested against the sustainability appraisal framework. A sixth option was included in an Issues and Option paper published in 2015.
- 1.9 The results of testing found that options that concentrated growth were more likely to increase accessibility to services and facilities, whilst reducing the need to travel and encourage sustainable modes of travel. They were also less likely to increase pressures on wildlife, habitats and landscapes. They would preserve the existing rural character of existing villages beyond the growth area. However they restricted choice for developers, investors and home buyers, whilst further increasing development pressure in locations that had already absorbed substantial growth. Conversely, those options that additionally directed development to the rural areas were more likely to increase the need to travel and risked placing housing in locations which may reduce its ability to help sustain existing services and could involve extensive new infrastructure. However, these options would make a greater contribution to reducing inequalities between the urban and rural parts of the borough than options concentrating growth.
- 1.10 Following the adoption of a revised plan period of 2015-2035, which resulted in a much higher level of growth than the local plan needed to accommodate, and taking account of the results of public consultation, a series of more detailed options were produced. Ten alternative options were produced, each of which was able to meet the level of need required.
- 1.11 In summary the sustainability appraisal showed that distinct differences between options could be identified. Options which did not include growth in and around the urban area performed least well. Those options which did not include new settlements whilst including growth in and around the urban area performed well, as did the option which included some growth in all types of location. The best performing options all required high levels of development in the rural villages

(between 3,500 and 5,325 dwellings) unless new settlements were included, in which case rural village development could be reduced to 1,725 dwellings.

- 1.12 A “do nothing” option was also tested which assumed that the Council does not plan for the distribution of growth. Instead growth to meet identified needs was assumed to occur in accordance with the National Planning Policy Framework’s presumption in favour of development. Development is therefore likely to occur in locations that are most attractive to developers. Testing against the sustainability appraisal framework showed that the ‘do nothing’ option would have mainly negative effects and performed less well than any of the other options tested.

The Council’s preferred strategy

- 1.13 The Council’s preferred strategy (the draft local plan for submission to the Planning Inspectorate for examination) is as follows.

- The creation of a new settlement at Colworth Garden Village Sharnbrook that will provide a new focus for strategic growth. This will provide 4,500 dwellings in total however only 2,500 will be developed by 2035.
- Regeneration of the large brownfield site opportunity at the former Stewartby brickworks site. This will provide 1,000 dwellings.
- Regeneration in the urban area of Bedford and Kempston, together with limited urban extensions, with growth in housing, employment, retail and other facilities. This will include regeneration projects to create a vibrant and modern town centre while preserving the established character. This will provide 2,630 dwellings.
- Development in villages at a scale that takes account of existing commitments and infrastructure capacity / potential infrastructure capacity. Growth in the key service centres of Bromham, Clapham and Great Barford will provide primarily new homes (500 in each village) but also services for the local community. Growth in the rural key service centre villages will be more limited to help support local services and will provide 225 dwellings in total. Some development may also be appropriate in smaller settlements if needed and supported by the community but this is not allocated in the local plan.
- Maintaining a living, working countryside and improving the rural area’s self-reliance by supporting opportunities to diversify the rural economy while conserving and enhancing the natural environment.

- 1.14 No specific sites are allocated to provide additional land for employment but the local plan includes a general policy to explain how the Council will deal with any proposals to develop new free-standing employment sites. New employment development should be located near to main roads, preferably re-using existing employment sites, and be in locations with good access by public transport, bicycle and on foot. In accordance with national government guidance, the preferred location for retail and office development is the town centre.
- 1.15 The result of testing the preferred strategy against sustainability objectives found that it was likely to have both positive and negative effects on sustainability indicators. Positive effects include:
- Maximising the use of previously developed land.
 - Improved infrastructure.
 - Economic growth, job creation and improved skills.
 - Bedford town centre becoming more attractive and successful.
 - Providing a range of housing (including affordable and older persons) and helping reduce deprivation.
 - Promoting healthy communities by providing walking and cycling facilities, open space and leisure facilities.
 - Reducing the need to travel by increasing the overall provision of services, facilities and employment across the borough.
 - Making rural public transport and other sustainable modes of travel increasingly viable.
 - Providing a viable alternative to private car commuting from the north of the borough.
 - Promoting a strong local identity and sense of place in the proposed new settlement.
- 1.16 The likely negative effects include:
- Most new development will be on greenfield land which could potentially affect habitats, species and natural features.
 - Increased resource consumption (energy, water, land) and waste production.
 - Employment growth could lead to greater traffic congestion and poorer air quality unless public transport is improved.
- 1.17 To minimise the negative effects and increase sustainability benefits, the sustainability appraisal recommended that mitigation measures be included in the local plan.

Testing local plan policies

- 1.18 The detailed policies of the local plan were also evaluated against the sustainability appraisal framework. In summary the assessment of the policies showed that most policies had primarily positive effects on sustainability objectives, with many having no negative effects at all. However several policies were assessed as having some negative effects or uncertain effects. In relation to policies that allocated specific development sites, the appraisal showed that previously developed sites located within the urban area had strongly positive effects on sustainability objectives while sites which had not been previously developed, tended to have some negative effects as well as positive effects. The positive effects for sites that were not located within or adjoining the urban area were less strong.
- 1.19 Conflicts between policies facilitating development and environmental objectives are to be expected and do not invalidate local plan policies. Instead they help identify the need for mitigation that can be incorporated into the local plan. Not all negative effects can be fully mitigated however, for example where these are implicit in the location of a site. The sustainability appraisal made recommendations for the mitigation of negative and uncertain effects.
- 1.20 The assessment of the cumulative effects of the policies is important because sustainability problems may result from the accumulation of many small impacts, rather than just a few large ones. The assessment identified mainly positive cumulative impacts. Several potential negative effects were identified, however these could be addressed by policies in the local plan.

Monitoring

- 1.21 It is important to monitor the local plan in order to identify any unforeseen effects on sustainability and to enable appropriate remedial action to be taken. Monitoring allows the actual effects of the local plan to be tested against those predicted in the sustainability appraisal. It is intended that sustainability monitoring will be incorporated into existing monitoring arrangements and be included in the Council's Monitoring Report.

2 Introduction

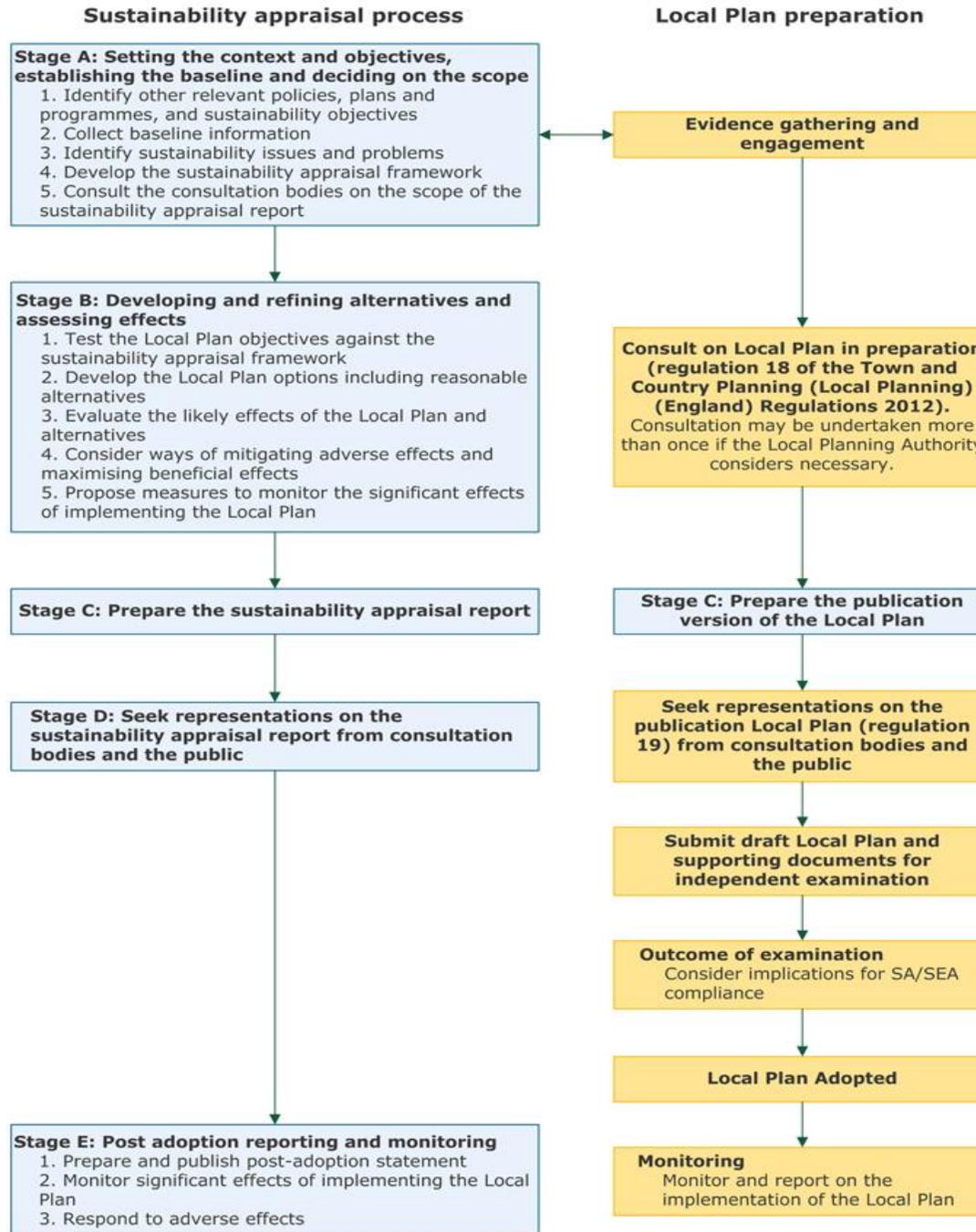
Sustainable development

- 2.1 The term 'sustainable development' has been used in policy-making since 1987 following the publication of the World Commission on Environment and Development Report, 'Our Common Future', commonly referred to as the Brundtland Report. The report developed guiding principles for sustainable development as it is generally understood today and contained the following definition: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".
- 2.2 The concept of sustainable development gained additional momentum after the Rio Earth Summit in 1992, which encouraged the Government to develop the UK's themes for sustainable development. The initial themes for sustainable development were presented in 'A Better Quality of Life: a Strategy for Sustainable Development in the United Kingdom'. This was updated in 2005 when the Government produced a new UK framework for sustainable development 'Securing the Future'. This document listed the following five principles of sustainable development which are used to guide the implementation of sustainable development in the UK:
- Living within environmental limits;
 - Ensuring a strong, healthy and just society;
 - Achieving a sustainable economy;
 - Promoting good governance;
 - Using sound science responsibly.
- 2.3 The National Planning Policy Framework sets out the Government's view of what sustainable development in England means in practice for the planning system. Three dimensions are identified, giving rise to the need for the planning system to perform the following roles:
- An economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;

- A social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- An environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

Sustainability appraisal and strategic environmental assessment

- 2.4 Sustainability appraisal is a specific requirement for all local plans of the Planning and Compulsory Purchase Act 2004. A sustainability appraisal considers how the principles of sustainable development have been taken into account in the preparation of a local plan.
- 2.5 Strategic environmental assessment (SEA) is required in the European Union by an EU Directive, commonly referred to as the SEA Directive. Its purpose is to assess the effects of certain plans and programmes on the environment. All local plans are considered to have the potential for significant environmental effects.
- 2.6 Sustainability appraisal and SEA are required by separate legislation, however as there are many cross-overs between the two processes they are usually undertaken together. This approach has been taken for the Bedford Local Plan 2035, therefore where sustainability appraisal is referred to; this incorporates the requirements of SEA.
- 2.7 There are several stages to the sustainability appraisal process which are set out in Government guidance. The table below shows these stages and indicates how these relate to the different stages of preparing the local plan.
- 2.8 This Sustainability Appraisal Report accompanies the publication stage of the local plan which is to be submitted to the Planning Inspectorate for independent examination. The following sustainability appraisal documents have been published previously:
- Sustainability Appraisal Scoping Report, 2013
 - Sustainability Appraisal of the Issues and Options Paper and Bedford Town Centre Discussion Paper, 2014
 - Addendum to Issues and Options Sustainability Appraisal, 2015
 - Second Addendum to Issues and Options Sustainability Appraisal, 2017.



2.9 Any significant changes made to the local plan following consultation on the Plan for Submission or as a result of modifications during the local plan examination, will be assessed and included as a revision to this Sustainability Appraisal Report. Following adoption of the local plan, and in accordance with the requirements of the SEA Directive, the Council will prepare a sustainability statement setting out:

- how sustainability considerations have been integrated into the local plan
- how the Sustainability Appraisal Report has been taken into account in the local plan
- how opinions expressed in response to public consultation have been taken into account
- the reasons for choosing the local plan as adopted, in the light of the other reasonable alternatives dealt with
- the measures that are to be taken to monitor the significant environmental effects of the implementation of the local plan.

2.10 The SEA Directive sets out certain procedural elements that must be followed. The following table signposts the components of this Sustainability Appraisal Report that make up the Environmental Report for the purposes of the SEA Directive.

Requirements of the SEA Directive	Paragraphs in this report
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes.	3.2 4.1 – 4.5 Appendix 1
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	3.3 – 3.28 6.30 – 6.32 Appendix 9
c) The environmental characteristics of areas likely to be significantly affected.	3.3 – 3.28
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 (The Birds Directive) and 92/43/EEC (The Habitats Directive).	2.12 – 2.13 3.3 – 3.28
e) The environmental protection objectives established at international, Community or national level, which are	3.29 – 3.38

relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation.	Appendix 3 Appendix 4
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 and archaeological heritage, landscape and the interrelationship between the above factors. (These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	5.1 – 5.4 6.1 – 6.57 7.1 – 7.5 Appendix 12 Appendix 13
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.	6.58 – 6.62 7.6 – 7.16 8.1 – 8.3
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.	6.1 – 6.52 7.18
i) A description of measures envisaged concerning monitoring in accordance with Article 10.	8.1 – 8.3
j) A non-technical summary of the information provided under the above headings.	1.1 – 1.21

The sustainability appraisal of sites

- 2.11 As part of the process of preparing the local plan, landowners and other interested parties were invited to propose sites for inclusion in the plan. Specific invitations to submit sites for consideration were made by the Council in 2014 and 2015. Site promoters were expected to provide sufficient information to enable the Council to assess the sites. It was anticipated that not all the sites put forward would be required to meet development needs over the plan period. Therefore, all sites were subject to a robust assessment of the suitability, availability and deliverability of land for the proposed use. In addition a high-level sustainability appraisal of the sites was undertaken to help inform decision-making. This is published as a separate document.

Habitats Regulations assessment

- 2.12 The Habitats Directive establishes a European ecological network known as Natura 2000. The network comprises Special Areas of Conservation (SAC) designated by member states in accordance with the provisions of the Directive, and Special Protection Areas (SPA) classified pursuant to Directive 79/409/EEC on the conservation of wild birds (the 'Birds Directive').

There are 189 natural habitat types of community interest in Annex I of the Directive and 788 animal and plant species of Community interest in Annex II. Annex IV lists animal and plant species in need of particularly strict protection.

- 2.13 Although there are no Natura 2000 sites (also known as European Sites) within the borough, it will be necessary to screen the policies of the plan to assess whether the plan, in combination with other plans and programmes, is likely to have an adverse effect on other sites in the vicinity. The purpose is to assess what, if any effects the plan might have on Natura 2000 sites in view of the conservation objectives for these sites. Wetlands of international importance designated under the Ramsar Convention (Ramsar sites) are afforded the same level of protection and must therefore also be considered as part of the Habitats Regulations assessment. This screening will be undertaken in consultation with Natural England as a separate exercise. If, following screening, significant adverse impacts are anticipated, an assessment would consider potential impacts in more detail and determine whether alternative measures could be adopted.

3 Scoping

Introduction

- 3.1 This section sets out how the scoping stage of the sustainability appraisal has been carried out, with reference to tasks listed under Stage A of the process as described in the Introduction. Stage A involves gathering evidence regarding the sustainability context and sustainability baseline in Bedford borough. This evidence has been used to develop a set of sustainability objectives against which the sustainability effects of the local plan can be assessed. Together, the objectives can be considered to be the sustainability appraisal framework for the appraisal. The framework and evidence base for the sustainability appraisal of the local plan were documented in a Sustainability Appraisal Scoping Report which was published for public consultation in 2013.

Identifying relevant policies, plans and programmes

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

A1: Identify other relevant policies, plans and programmes, and sustainability objectives.

- 3.2 This requires a review of policies, plans and programmes that influence the content of the local plan in order to establish relevant sustainability objectives which need to be considered and the implications for the sustainability appraisal. This review is set out in Appendix 1 of this Sustainability Appraisal Report. Relevant international level plans and directives have been listed separately and the following national, regional and local policies, plans and programmes are reviewed.

General

- National Planning Policy Framework
- National Planning Practice Guidance

- National Infrastructure Delivery Plan
- Securing the Future – UK Sustainable Development Strategy
- Planning for a Sustainable Future: White Paper
- Bedford Borough Sustainable Community Strategy
- Adjoining local authority local plans

Air

- Air Quality Strategy for England, Scotland, Wales and Northern Ireland
- Air Quality Management Area Order

Biodiversity, flora and fauna; culture, heritage and landscape

- Regional Woodland Strategy
- Cambridgeshire Green Infrastructure Strategy
- Bedfordshire and Luton Biodiversity Action Plan
- Marston Vale Forest Plan
- Bedfordshire and Luton Strategic Green Infrastructure Plan
- Bedford Green Infrastructure Plan
- Bedford Borough Landscape Character Assessment
- Local Conservation Area Appraisals and Management Plans

Economic development

- South East Midlands Strategic Economic Plan
- Bedford Borough Local Economic Assessment
- Bedford Borough Economic Development Strategy
- Bedford Growth Plan

Energy

- National Policy Statements for Energy Infrastructure EN-1 – EN-6

Housing

- Planning Policy for Traveller Sites
- Bedford Borough Housing Strategy Review
- Bedford Borough Empty Homes Strategy
- Bedford Borough Homelessness Strategy
- Bedford Strategic Housing Market Assessment Update

Population and human health

- Noise Policy Statement for England
- Bedford Borough Health and Wellbeing Strategy
- Bedford Joint Strategic Needs Assessment

Rural issues

- The Rural Statement

Community safety and social inclusiveness

- A New Approach to Fighting Crime
- Bedford Borough Community Safety Partnership Strategic Plan
- Bedfordshire Police and Crime Plan

Transport

- Door to Door: A strategy for improving sustainable transport integration
- Strategic Road Network and the Delivery of Sustainable Development
- Bedford Local Transport Plan

Waste

- Waste Management Plan for England
- National Policy for Waste

- Waste Strategy for England
- Bedfordshire Minerals and Waste Local Plan: Strategic Sites and Policies

Water and soil

- Future water: The Government's water strategy for England
- Groundwater Protection Guides
- Anglian River Basin Management Plan
- Great Ouse Catchment Flood Management Plan
- Water Resources Management Plan
- River Great Ouse Waterway Plan
- The Marston Vale Surface Waters Plan
- Upper Ouse and Bedford Ouse Catchment Area Management Strategy
- Bedford Borough and Central Bedfordshire Northern Area Detailed Water Cycle Study
- Upper River Great Ouse Preliminary Flood Risk Assessment

Climate change

- Bedford Climate Change Strategy

Collecting baseline information

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

A2: Collect baseline information.

- 3.3 The collection of baseline information is a key component of the sustainability appraisal process. Baseline information helps to understand the current situation in the borough and how conditions are likely to evolve over time. This information is then used to help identify the key issues and problems facing the borough and to inform the assessment of the local plan.

- 3.4 The baseline information that has been collected is presented in Appendix 2 which reports on a series of environmental, economic and social indicators. For each indicator both the current situation and identifiable trends are reported. This data is provided for both Bedford borough and a 'comparator' area where possible, so that the local information is seen in context; this comparator is generally either the East of England region as a whole or Bedfordshire if regional data is unavailable. Where information collected for the scoping report is no longer available, alternative data has been identified.
- 3.5 This information, together with other published information, is used in this section to provide an introduction to the borough's environment, economy and community – the current situation, together with a brief analysis of how the borough might look in the absence of the local plan.

Current situation

- 3.6 Bedford borough is a unitary authority situated in the eastern region of England in the county of Bedfordshire. It covers an area of 184 square miles and had a population at the last census in 2011 of 157,479. The main settlement is the urban area of Bedford / Kempston where about 64% of the population is located, whilst the remaining area is predominantly rural with a number of villages. Bedford is linked by railway to London and the East Midlands, and also via the Marston Vale line to Bletchley, Milton Keynes.
- 3.7 In relation to the **environment**, the borough contains areas of high quality agricultural land (grades 1, 2 and 3a). There are also areas of mineral resources, such as sand, gravel and clay. There is a limited supply of previously developed land in the borough, mostly located within the urban area. In 2016/17 45% of new housing development was on previously developed land.
- 3.8 There is one Air Quality Management Area in Bedford, which has been designated where the annual mean level of nitrogen dioxide exceeds national air quality standards. The main source of nitrogen dioxide is vehicle emissions. The water quality of the River Great Ouse and other water bodies are monitored for their ecological status and are mostly moderate or good.
- 3.9 Parts of the borough, particularly near to the River Great Ouse and the Elstow Brook, have a moderate (between 1 in 75 and 1 in 200) chance of flooding, although some limited areas have a significant (greater than 1 in 75) chance of flooding. A number of properties, primarily within the urban area, are at risk of flooding.

- 3.10 In terms of biodiversity, the main wildlife priority areas in the borough are designated as either Sites of Special Scientific Interest (SSSI) or Local Nature Reserves (LNR). There are seven SSSIs and eight LNRs in the borough. To supplement the statutory sites, a county-based tier of non-statutory county wildlife sites has also been designated, of which there are now 126 sites. Together, these sites represent the key sites for nature conservation within the borough.
- 3.11 The historic cores of settlements within the borough have been designated as conservation areas and are protected from harmful development. There are a total of 28 conservation areas in the borough and 6 conservation area appraisals / management plans have been produced for them. In excess of 1,300 buildings also are listed as being of special architectural or historic interest. These are afforded additional protection to preserve them. In addition 69 sites have been designated as scheduled monuments and eight sites included on English Heritage's Register of Parks and Gardens of Special Historic Interest. Information on historic landscape characterisation is contained within the Historic Environment Record, which is the key source of information on the borough's archaeological sites, historic landscape features, buildings and structures.
- 3.12 In relation to the **economy**, in 2017 82% of the borough's working age population was economically active. At the 2011 census Bedford's residents were employed as follows: health, education and public administration – 31%; business and finance – 19%; wholesale and retail trade, repairs of motor vehicles – 17%; manufacturing – 9%; other – 24%. 29% of people in employment in the borough worked as managers or in professional occupations. In 2016, 95% of young people (16-18 years old) in Bedford borough were in full-time education, employment or training.
- 3.13 In terms of education, in 2011 8.7% of Bedford borough's population had no qualification, which is lower than the average for the East of England (9.6%). Furthermore, a larger proportion of people in the borough were educated to NVQ level 4 and above (32.6%), in comparison to the regional average (29.2%).
- 3.14 The number of out of work benefit claimants as a proportion of the working age population was 2.4% in 2017. The rate was higher in the urban area and the wards with the highest rate were Castle and Harpur.
- 3.15 Bedford town centre is the focus for shopping in the borough. Vacancy rates in the town centre (ground floor shop units) were 11.8% in 2016.

- 3.16 In relation to the **community**, the most recent population estimate states that the population of the borough in 2016 was 168,751 people. Average household size in the Borough in 2011 was 2.42 persons.
- 3.17 In 2015 the borough ranked 148th in the Index of Multiple Deprivation of 326 English local authorities (1 being the most deprived). There are specific pockets of deprivation in three urban areas: Castle, Harpur and Cauldwell.
- 3.18 In 2016 the ratio of average house price to average income was 8.06 for Bedford, compared to 8.33 for the East of England. Homelessness in 2016/17 was 433 people. At the last census in 2011, the majority of residents of the borough travel to work by car (almost 60%).
- 3.19 At the last census in 2011 71.5% of people in the borough described their ethnic origin as white British. There were a higher proportion of people of Asian/Asian British (Indian, Pakistani, and Bangladeshi) and Black/black British Caribbean origin compared to the East of England average.
- 3.20 Crime rates per thousand population in the Bedfordshire police authority area have risen in recent years. Fear of crime can have an important influence on the quality of life of residents and the Council's Citizen Panel Survey showed a decrease between 2014 and 2016. Life expectancy at birth in the borough in 2012-14 was 80.2 years for males and 83.9 years for females. Information on long-term illness shows a lower rate in the borough than in the region or England as a whole.

The future baseline without the local plan – the 'business as usual' scenario

- 3.21 In relation to the **environment**, for the UK climate change means hotter and drier summers, milder and wetter winters, and an increased risk of flooding. The borough is therefore likely to be increasingly vulnerable to the effects of climate change in the future. In addition, hotter and drier summers are likely to place a further strain on water resources. The Summary of Climate Change Risks for East England states that the area is one of the most vulnerable regions across the UK for changes in water availability. It is the driest region in England, receiving only 70% of the national average rainfall. Most of the East of England is recorded as being over-abstracted or over-licensed at low flows, which causes significant damage to the environment. Importantly, the impacts of climate change could be disproportionately felt by the most vulnerable people in the borough, particularly the elderly (who are a growing proportion of the population). It is important to recognise that natural

habitats and native species will alter as the climate changes. The viability of certain types of agriculture could be affected. The borough's built environment will also be affected by climate change with a greater risk of subsidence and infrastructure will need to be increasingly adapted to cope with a changing climate.

- 3.22 Car ownership and total traffic is expected to continue to increase in the future as population rises. This is likely to lead to increased road congestion and reduced viability of public transport. Increased traffic growth and congestion is likely to lead to poorer local air quality and increased greenhouse gas emissions.
- 3.23 In relation to **economic and social change**, proposed transport improvements, such as electrification of the East Midland line railway and the completion of East-West rail, can be expected to bring a boost to the local economy. The improved accessibility is likely to stimulate investor interest in the borough, both for business relocation and the residential market.
- 3.24 Demand for new housebuilding is likely to be further boosted by the Government's priority of ensuring that housing needs are met. Without a local plan the location of new development will be uncontrolled and be in response to market demands. This means that new housing is likely to be dispersed in rural locations, although not necessarily in or adjoining villages, thus resulting in a greater use of agricultural land. Infrastructure provision and any community benefits arising from development would not be coordinated. Development of brownfield land is unlikely to occur unless the site is particularly well located or does not require remediation.
- 3.25 Under a business as usual scenario Bedford town centre might be expected to slip further behind neighbouring centres. These already attract a lot of the borough's residents, especially for non-food shopping and leisure. Without regeneration, the opportunity to retain expenditure locally might be increasingly lost.

Identifying sustainability issues and problems

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

A3: Identify sustainability issues and problems.

3.26 This section involves the identification of the key sustainability issues and problems relevant to the local plan. This is based on the review of relevant policies, plans and programmes, together with an examination of the baseline information. The sustainability issues identified then form the basis for developing a sustainability appraisal framework.

Sustainability issue	Evidence	Mitigation opportunities
Environmental		
Agricultural land	<ul style="list-style-type: none"> • Increased demand for development. • Limited brownfield land available. 	<ul style="list-style-type: none"> • Avoid development of best and most versatile agricultural land. • Prioritise use of suitably located previously developed land.
Climate change	<ul style="list-style-type: none"> • Hotter, dryer weather will affect buildings and their occupiers. • Risk of energy shortages as demand increases. 	<ul style="list-style-type: none"> • Influence building design to enable natural cooling. • Locate development to minimise need to travel. • Encourage renewable energy generation.
Flood risk	<ul style="list-style-type: none"> • Buildings affected by increased risk of flooding. 	<ul style="list-style-type: none"> • Avoid inappropriate development in land liable to flood, taking account of climate change. • Adequate mitigation and resilience measures must be provided to ensure flooding does not occur on site or increase flooding elsewhere. • Mitigation measures and drainage schemes should be designed with due regard to climate change; amenity, biodiversity.
Water resources	<ul style="list-style-type: none"> • Limited water resource affected by climate change. • Increasing demand for water. 	<ul style="list-style-type: none"> • Influence building design to reduce water consumption of occupants. • Infrastructure improvements to increase supply. • Ensure that the Water Framework Directive status of waterbodies does not deteriorate and is improved where possible.
Air quality	<ul style="list-style-type: none"> • High levels of nitrogen dioxide in town centre. 	<ul style="list-style-type: none"> • Reduce traffic in town centre.

		<ul style="list-style-type: none"> • Influence building design to reduce exposure to poor air quality.
Traffic congestion	<ul style="list-style-type: none"> • Increased car use. 	<ul style="list-style-type: none"> • Increase opportunities for public transport, cycling and walking. • Enable non-essential traffic to avoid town centre.
River water quality	<ul style="list-style-type: none"> • Variable ecological status. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered.
Habitat loss and fragmentation	<ul style="list-style-type: none"> • Increased demand for development. • Condition of designated sites declining. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered. • Consider opportunities to increase and improve habitat provision.
Threats to heritage assets	<ul style="list-style-type: none"> • Increased demand for development. 	<ul style="list-style-type: none"> • Ensure effects of development proposals fully considered.
Economic		
Unemployment	<ul style="list-style-type: none"> • Pockets of higher levels of unemployment. 	<ul style="list-style-type: none"> • Ensure sufficient opportunities for employment in accessible locations.
Town centre	<ul style="list-style-type: none"> • Competition from neighbouring centres. • Some areas in need of regeneration. 	<ul style="list-style-type: none"> • Reduce number of vacant units in town centre. • Consider opportunities to regenerate sites. • Consider opportunities for environmental improvements.
Social		
Housing	<ul style="list-style-type: none"> • Increasing population. • Housing affordability. • Ageing population. 	<ul style="list-style-type: none"> • Ensure that more housing is available to meet needs. • Ensure provision of affordable housing. • Ensure provision of housing to meet specific needs.
Deprivation	<ul style="list-style-type: none"> • Pockets of higher levels of deprivation. 	<ul style="list-style-type: none"> • Ensure sufficient opportunities for employment in accessible locations.

Health	<ul style="list-style-type: none"> • Pockets of lower life expectancy and unhealthy lifestyles. 	<ul style="list-style-type: none"> • Consider opportunities to encourage cycling and walking. • Consider opportunities to increase provision of open space and other green infrastructure.
Social infrastructure	<ul style="list-style-type: none"> • Increasing population 	<ul style="list-style-type: none"> • Ensure sufficient provision of schools, community facilities, play space, etc.

Issues related to Natura 2000 (European) wildlife sites

3.27 Although there are no Natura 2000 sites (also known as European Sites) within the borough, there are several in neighbouring areas. These include:

- The Ouse Washes SPA
- The Ouse Washes SAC
- The Ouse Washes Ramsar Site
- Portholme SAC
- Upper Nene Valley Gravel Pits SPA
- Upper Nene Valley Gravel Pits Ramsar Site.

3.28 Issues relating to these sites are considered in the accompanying Habitats Regulations Assessment report.

Developing the sustainability appraisal framework

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

A4: Develop the sustainability appraisal framework.

3.29 Sustainability appraisal is an objectives-led approach whereby the potential impacts of a local plan are assessed in relation to a series of objectives for sustainable development. The sustainability appraisal objectives have been produced based on the review of relevant policies, plans and programmes, together the baseline information. The objectives provide a benchmark against which the policies and proposals of the local plan can be assessed. The process for developing the sustainability objectives as part of the sustainability appraisal framework is set out in Appendix 3.

3.30 The sustainability appraisal objectives are as follows.

1. Ensure resilience to and reduce the effects of climate change through effective adaptation and mitigation.
2. Promote sustainable lifestyles, use resources efficiently, maximise recycling and re-use.
3. Conserve and enhance the built and historic environment, heritage assets and their settings.
4. Create, conserve, protect and enhance the borough's natural features, distinctive local environments, habitats and species.
5. Promote strong, sustained and balanced economic growth, stimulating job creation across a range of sectors.
6. Improve the skills of the labour force, matching skill outcome with market needs.
7. Create a distinctive, attractive and multi-functional town centre.
8. Meet the needs of a changing population.
9. Reduce levels of deprivation, inequalities and exclusion.
10. Promote community involvement in place-shaping, promote healthy and safe communities.
11. Promote a strong local identity and sense of place.
12. Minimise growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport.

Compatibility of sustainability appraisal objectives

3.31 There may be tensions between individual sustainability appraisal objectives. Therefore, it is useful to test the internal compatibility of the objectives so that subsequent decisions are well based. The testing of internal compatibility between the sustainability appraisal objectives was integrated into the process by which objectives were developed and is set out in Appendix 3. A number of tensions were identified, primarily between the environmental and economic objectives, which should be recognised and addressed through the sustainability appraisal process.

Sustainability appraisal decision making criteria

- 3.32 In addition to the sustainability appraisal objectives a series of decision making criteria have been developed, which are a series of questions which arise from the sustainability appraisal objectives. These questions may be used when assessing local plan policies and proposals against the sustainability appraisal objectives as they may assist in providing greater definition to the individual components of objectives.
- 3.33 It is important to note that the decision making criteria relate only to decisions being made within the sustainability appraisal process in assessing the sustainability of policies and proposals. The criteria do not form the basis for plan-related decision making in terms of whether or not a site, policy or option will be included within the plan. Rather, the findings of the sustainability appraisal help to inform decisions relating to the content of the local plan.

Indicators and targets

- 3.34 The sustainability appraisal framework also comprises a series of indicators which relate back to the decision making criteria. These are designed to enable an indication of the effect of a policy or proposal on sustainability to be identified. A limited number of indicators have been devised for each objective and, where possible, these draw upon national sources to allow comparisons between local and national data. By definition, indicators are selective in the information they provide and it is inevitable that they capture only some dimensions of environmental, social and economic conditions.
- 3.35 The indicators are also used in establishing a monitoring programme for measuring the significant effects of implementing the local plan. Where indicators that were proposed in the scoping report are no longer available, alternative indicators have been identified. The full sustainability appraisal framework, including the decision making criteria and indicators is set out in Appendix 4.

Scoring criteria

- 3.36 When the local plan policies and proposals were assessed, symbols were used against each of the sustainability appraisal objectives to indicate the predicted effects and their nature. When determining the likely significance of effects,

consideration was given to the characteristics of the effects and the sensitivity of the receptors involved. For example, the following can all determine whether effects may be significant:

- Probability, duration, frequency and reversibility of effects;
- Cumulative nature of effects;
- Magnitude and spatial extent of the effects; and
- Value and vulnerability of area likely to be effected.

3.37 The following symbols were used:

✓✓	Major positive effect	ST	Short-term effect
✓	Positive effect	MT	Medium-term effect
O	Neutral effect	LT	Long-term effect
?	Uncertain effect	P	Permanent effect
X	Negative effect	T	Temporary
XX	Major negative effect		

3.38 The outputs of the appraisal scoring were provided in a series of tables. It should be noted that the sustainability appraisal scoring is not a quantitative process but a qualitative one and therefore does not entail simply adding up how many pluses or minuses one option has over another.

Consulting on the scope of the sustainability appraisal

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

A5: Consult the consultation bodies on the scope of the sustainability appraisal.

3.39 The framework and evidence base for the sustainability appraisal of the local plan were documented in a Sustainability Appraisal Scoping Report which was published for public consultation in 2013. The statutory environmental consultation bodies (Environment Agency, Natural England, English Heritage) were consulted for a minimum of five weeks (26th September to 4th November 2013) as required by the relevant regulations. The report was also available to view on the Council's website during the consultation period. The results of the public consultation are set out in Appendix 5 together with a response explaining how they have been taken into account in the sustainability appraisal. The contents of the scoping report have been incorporated into this section, updated as necessary.

4 The Bedford Local Plan 2035

- 4.1 The Bedford Local Plan 2035, once adopted, will be the principal document of the statutory development plan for Bedford borough. (Other documents include the Minerals and Waste Local Plan Strategic Sites and Policies, 2014 together with those parts of the Allocations and Designations Local Plan, 2013 and Bedford Local Plan, 2002 that have not been withdrawn.) The Bedford Local Plan 2035 sets out the Council's vision and spatial strategy for the future development of the borough. In particular it identifies strategically important land for development in the borough.
- 4.2 Following a number of issues and options consultations between 2014 and 2017, the Council has now published a complete draft local plan for submission to the Planning Inspectorate for examination. The main components of the local plan for submission are:
- Local plan vision and objectives.
 - Growth strategy for the borough.
 - Policies and proposals, comprising:
 - Strategic policies – those policies that are essential to the delivery of the strategy as well as a number of strategic allocations for development that are crucial to the implementation of the growth strategy.
 - Site allocation policies – policies identifying non-strategic sites for development.
 - Development management policies – more general policies that are needed to support the implementation of the strategy.
 - Implementation plan.
- 4.3 A number of parish councils in the borough are preparing neighbourhood plans under the powers conferred by the Localism Act, 2011. Neighbourhood plans have the same status as the local plan but must not conflict with the borough-wide local plan's strategy. They can be used to allocate sites in the same way as the local plan and allow local residents to decide for themselves where development should take place. Where parish councils have made significant progress in writing a neighbourhood plan and want to deliver the amount of development required by the local plan's strategy, the Council has agreed to leave the selection of sites within their areas to them. As a result, in many of the rural areas of the borough the

local plan does not allocate individual sites for development although the strategy specifies the amount of growth required in broad locations.

- 4.4 As part of the process of plan development the Council, in recognition of the requirements of the SEA Directive, has considered reasonable alternative options. This sustainability appraisal report focuses on the assessment of the objectives and policies of the local plan against the sustainability appraisal framework. Other elements of the local plan find their expression through the local plan's policies.
- 4.5 The remainder of this sustainability appraisal report sets out how the tasks listed under Stage B of the sustainability appraisal process (described in the Introduction to this report) have been carried out. Stage B involves the main body of appraisal work, including:
- testing the local plan objectives against the sustainability appraisal framework
 - developing and refining options and reasonable alternatives
 - predicting and assessing effects
 - identifying mitigation measures
 - developing monitoring proposals.

5 Appraisal findings – local plan objectives

Stage B: Developing and refining options and assessing effects.

B1: Test the local plan objectives against the sustainability appraisal framework.

- 5.1 The objectives of the local plan set out what the plan is aiming to achieve. It is therefore important that they are consistent with sustainability principles and this is checked by testing them against the sustainability appraisal framework. The aim of this process is to identify potential inconsistencies that need to be addressed.
- 5.2 Over the course of the issues and options consultations the draft local plan objectives have been refined and added to. The final objectives of the local plan are as follows.
1. Deliver high quality growth that will facilitate the development of more sustainable and inclusive places for local communities, which are equipped to respond to the impacts of climate and economic change and offer the opportunity to live more healthy lifestyles. Where it is viable and sustainable to do so, encourage the re-use of land that has been previously developed.
 2. Provide appropriate amounts and types of housing to meet the needs of the borough's urban and rural communities over the lifetime of the plan.
 3. Support a stronger local economy delivering economic growth and broadening employment opportunities for the benefit of the borough's existing and future residents.
 4. Create a distinctive, attractive and multi-functional town centre for the future with a particularly strong focus on leisure and tourism activities.

5. Achieve a borough where everybody has appropriate access to high quality health and social care as well as everyday essential services and community facilities. Where social and cultural wellbeing is supported, enabling all residents to lead healthy and independent lives.
6. Deliver existing and future infrastructure needs to support growth in both the urban and rural areas of the borough through the implementation of the Community Infrastructure Levy and other means.
7. Improve the borough's transport infrastructure in order to support growth in the local economy and to make the borough more attractive as a place to live and do business. Reduce congestion in the borough, particularly into and around the town centre and by making journeys by public transport, walking and cycling more attractive to encourage an increase in more sustainable and healthy modes of transport.
8. Develop a strong and multifunctional urban and rural green infrastructure network through protecting, enhancing, extending and linking landscapes, woodland, biodiversity sites, heritage sites, green spaces and paths.
9. Support and create a high quality, inclusive and safe built environment which values local landscape and settlement character and which conserves and enhances the historic environment, heritage assets and their settings and is enjoyed by all.
10. Protect and enhance our natural resources including air, soil minerals and water to minimise the impacts of flooding, climate change and pollution.

5.3 The result of the testing is shown in the matrix below.

Key to the matrix: ✓ positive compatible
 ? neutral / uncertain
 X potential inconsistency

		Local plan objectives									
		1	2	3	4	5	6	7	8	9	10
Sustainability appraisal objectives	1	✓	X	X	X	X	X	X	✓	?	✓
	2	✓	X	X	X	?	?	✓	✓	✓	✓
	3	✓	✓	✓	✓	?	?	?	✓	✓	✓
	4	✓	?	?	?	?	?	?	✓	✓	✓
	5	✓	✓	✓	✓	?	✓	✓	✓	?	X
	6	✓	?	?	?	✓	?	?	?	?	?
	7	✓	✓	✓	✓	✓	✓	✓	?	✓	X
	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
	9	✓	✓	✓	✓	✓	✓	✓	✓	✓	?
	10	✓	?	?	✓	✓	?	✓	✓	✓	✓
	11	✓	?	?	✓	?	?	?	?	?	?
	12	✓	?	✓	✓	?	?	✓	✓	?	✓

5.4 Most of the local plan objectives are either compatible with the sustainability appraisal objectives or are neutral / uncertain. The following potential inconsistencies have been identified.

- Sustainability appraisal objective 1 versus local plan objectives 2 - 7

Possible inconsistency as plan objectives 2 - 7 seek to deliver growth and development, whereas sustainability appraisal objective 1 seeks to protect the environment and encourage the adaption to and mitigation of climate change. Although there is scope for new development to promote resilience to climate change and manage flood risk through suitable location, low carbon homes and sustainable drainage, there is an in principle inconsistency between the objectives. The sustainability appraisal of local plan policies will need to highlight the potential negative effects of development so that they can be mitigated.

- Sustainability appraisal objective 2 versus local plan objectives 2 - 4

Possible inconsistency as plan objectives 2 - 4 seek to deliver growth and new development, whereas sustainability appraisal objective 2 promotes sustainable lifestyles, resource efficiency and sustainable waste management. Although there is scope for new development to be constructed using sustainable building techniques, reduce the need to travel, incorporate renewable energy and raise design quality, there is an in principle inconsistency between the objectives as increased development is likely to increase overall resource consumption (energy, water, land) and waste production. The sustainability appraisal of local plan policies will need to highlight the potential negative effects of development so that they can be mitigated.

- Sustainability appraisal objectives 5, 7 and 8 versus local plan objective 10

Potential inconsistency with draft plan objective 10 which aims to protect and enhance natural resources, whereas sustainability appraisal objectives 5, 7 and 8 seek to deliver strong economic growth in addition to town centre, housing and infrastructure development, which are likely to increase emissions and resource use. The sustainability appraisal of local plan policies will need to highlight the potential negative effects of development so that they can be mitigated.

6 Appraisal findings – options

Stage B: Developing and refining options and assessing effects.

B2: Develop and refine the local plan options including reasonable alternatives.

B3: Evaluate the likely effects of the local plan and alternatives.

- 6.1 In this section the alternative options considered for the local plan are explored. The aim of this section is to present “an outline of the reasons for selecting the alternatives dealt with” in accordance with the SEA Regulations. Specifically, this section explains how reasonable alternatives were established subsequent to certain initial and interim steps. Options relating to the amount of growth and the distribution of growth are considered separately.
- 6.2 Throughout the preparation of the local plan various options for the amount and distribution of growth have been put forward and these have evolved over time in response to evidence studies and public consultation. The detailed sustainability appraisal of these emerging options is set out in the previously published sustainability appraisal documents:
- Sustainability Appraisal of the Issues and Options Paper and Bedford Town Centre Discussion Paper, 2014
 - Addendum to Issues and Options Sustainability Appraisal, 2015
 - Second Addendum to Issues and Options Sustainability Appraisal, 2017.

Options for the amount of growth

- 6.3 The starting point for considering the amount of growth is the National Planning Policy Framework requirement for local planning authorities to provide for “the full, objectively-assessed needs for market and affordable housing” (paragraph 47).

- 6.4 Initial estimates of the range of growth that might be needed to meet the borough's objectively-assessed needs for the period 2012-2032 were included in an Issues and Option paper published in 2014. This resulted in three options that were tested against the sustainability appraisal framework.
- Low growth – 940 to 1,680 dwellings
 - Medium growth – 2,400 dwellings
 - High growth – 3,140 to 3,860 dwellings.
- 6.5 A further issues and option paper published in 2015 set out a more detailed calculation of the borough's objectively-assessed needs. This resulted in a revised figure of 4,521 dwellings which was also tested against the sustainability appraisal framework. The results of testing all of these initial options are set out in the sustainability appraisals published in 2014 and 2015.
- 6.6 Subsequently the Council decided to alter the plan period to 2015-2035 which resulted in a revised assessment of objectively assessed needs of 7,822 dwellings. This revised plan period was considered to be necessary because several new settlement proposals had been submitted that needed to be considered and to ensure that the local plan covered a fifteen year period from adoption as required by the National Planning Policy Framework. The testing of this higher level of growth is set out in Appendix 6 along with a 'do nothing' option, which assumes that no growth will occur in the borough over the plan period.
- 6.7 Testing the higher level of growth shows that there are likely to be negative effects on climate change, the use of resources, natural features and car use. However, the higher level of growth would have positive effects on the delivery of new homes, infrastructure, services and facilities, and supporting strong local economic growth, helping to reduce deprivation. A 'do nothing' option is shown not to perform well. No positive effects are identified and there are several negative effects, particularly as a result of the lack of economic growth, the lack of additional housing to meet the needs of the population and the likelihood of an increase in commuting to neighbouring areas for work, shopping and services.
- 6.8 Lower growth (or no growth under the "do nothing" option) is not a realistic option for the local plan because of the National Planning Policy Framework requirement for local plans to meet objectively assessed needs. In theory it would be possible to

plan for higher levels of growth that exceed objectively assessed needs. Such an option would intensify the magnitude of likely effects further. However such higher growth is also not a realistic option. It would not be supported by the Council as it would be unpopular because of the lack of evidence to show that growth above objectively assessed needs is required and the perceived negative effects on existing communities and the environment. A growth option which meets the objectively assessed need for growth is the only realistic option. The local plan therefore must consider how the likely negative effects of the option can be mitigated. Nevertheless, the sustainability appraisal has also highlighted that higher growth levels are likely to have significantly greater potential to support the delivery of new homes, infrastructure, services and facilities, and help support strong local economic growth. The local plan should aim to maximise these positive effects. The sustainability appraisal has also highlighted that the size and type of some effects are largely dependent on how growth is distributed. This is considered in the following section.

Options for the distribution of growth

Testing initial options

6.9 Initial options for the distribution of growth to meet the borough’s needs for the period 2012-2032 were considered in an Issues and Option paper published in 2014. The paper included five options that were tested against the sustainability appraisal framework. The paper made clear that a combination of these five or some other option may be appropriate and that the final strategy would depend on suitable sites being made available for development by landowners. The options are summarised in the table below.

Option	Summary
Option 1 – Continue the current approach	<ul style="list-style-type: none"> • Growth area remains as currently defined and continues to accommodate majority of growth. • Limited development in the remaining rural area, mostly village infilling. • Development in open countryside restricted in line with government policy.
Option 2 – Expanded growth area	<ul style="list-style-type: none"> • Existing growth area would expand through urban extensions and development adjoining the existing growth area. • Limited development in the remaining rural area, mostly village infilling. • Development in open countryside restricted in line with government policy.

Option 3 – Expanded growth area plus some rural growth	<ul style="list-style-type: none"> • Growth area as option 2. • More growth allowed in the larger villages than in smaller settlements. • Development in open countryside restricted in line with government policy.
Option 4 – Existing growth area plus new rural growth points	<ul style="list-style-type: none"> • Growth area similar to option 1 but with less growth than option 1. • Some growth also to be focussed on a limited number of new rural growth points. • Development in the rest of the borough limited to infilling in existing villages. • Development in open countryside restricted in line with government policy.
Option 5 – Spread development around existing settlements	<ul style="list-style-type: none"> • Abandon concentration of development in the growth area. • Allocate development to settlements according to their size (about two thirds to the urban area and one third to rural villages). • Development in open countryside restricted in line with government policy.

- 6.10 The results of testing the five options were set out in the sustainability appraisal of the 2014 Issues and Option paper. In summary, the sustainability appraisal found that options that concentrated growth (options 1 and 2) were more likely to increase accessibility to services and facilities, whilst reducing the need to travel and encourage sustainable modes of travel. They were also less likely to increase pressures on wildlife, habitats and landscapes. They would preserve the existing rural character of existing villages beyond the growth area. However they restricted choice for developers, investors and home buyers, whilst further increasing development pressure in locations that had already absorbed substantial growth.
- 6.11 Conversely, those options that additionally directed development to the rural areas (options 3 and 5) were more likely to increase the need to travel and risked placing housing in locations which may reduce its ability to help sustain existing services and could involve extensive new infrastructure. However, these options would make a greater contribution to reducing inequalities between the urban and rural parts of the borough than options 1 and 2.
- 6.12 The creation of a limited number of new villages or settlements (option 4) involved the greatest risk for affecting sensitive landscapes. In addition, this option was likely to involve the greatest level of greenfield land-take and require significant infrastructure provision.
- 6.13 As a result of the 2014 consultation (which included an invitation to submit potential development sites for consideration), further information became available about potential sites for development. This, combined with technical work on the

sustainability of various locations in the borough, together with a more detailed calculation of the borough's objectively-assessed need for growth, led to a new option being developed for consultation (option 6).

- 6.14 In summary, the strategy of option 6 was for suitable, available and deliverable sites in and adjoining the Bedford and Kempston urban area to be the first priority for allocation as this was considered to be the most sustainable location in the borough. The next priority was the larger villages, with growth apportioned having regard to the capacity of available sites and access to supporting infrastructure, taking account of school capacity, potential for school expansion and opportunities for the provision of new schools. A lower amount of development was proposed for smaller villages. Option 6 was more detailed than the previous options as it specified amounts of development to broad locations. Further information on option 6 is contained in the Further Issues and Option paper published in 2015.
- 6.15 The results of testing option 6 were set out in the sustainability appraisal of the 2015 Issues and Option paper. In summary, the sustainability appraisal found that, although the option would prioritise new development within and adjoining the urban area, a lack of suitable sites meant that it was likely to require the development of open land adjoining rural villages and therefore could potentially affect habitats, species and natural features. It could also result in more commuting by car and therefore increase emissions from transport. However it could encourage walking and cycling within existing settlements if development included improved infrastructure. It could also make rural public transport increasingly viable. The option was likely to make a positive contribution to economic growth and job creation, supporting the urban area and town centre, but also strengthening rural economies. It should help to reduce deprivation in terms of health, income, skills and unemployment in the urban area as well as increasing access to essential services in the rural area.

Testing potential option scenarios

- 6.16 As explained in paragraph 6.6, the decision to adopt a revised plan period of 2015-2035 resulted in a much higher level of growth that the local plan needed to accommodate. This meant that the previous initial options needed to be re-considered, taking account of the information already gained from the sustainability appraisal testing and public consultation. In addition, the submission of additional potential development sites for consideration following the further 'call for sites' in 2015 meant that new strategy options could be considered.

- 6.17 Comments made by the public during consultation suggested that, before greenfield sites are developed, consideration should be given to sites within existing settlements or on previously developed land. The Council's Strategic Housing and Employment Land Availability Assessment shows that there is capacity for fewer than 1,000 dwellings within existing settlements (including the urban area), so this on its own cannot be considered as a realistic alternative. In relation to previously developed land, the Council's Brownfield Land Register shows that, although there is capacity for about 7,700 dwellings, over 2,800 of these already have planning permission. The Register includes the employment land that was identified in the Economy and Employment Land Study as being suitable and available for other uses. Although relying on previously developed land on its own to meet the borough's housing needs cannot be considered to be a realistic alternative to greenfield site development, it can still be considered as part of a range of potential options.
- 6.18 Another suggestion that was put forward through public consultation was that new settlements should be considered as a means of meeting assessed needs. The option of a new settlement had been previously proposed as part of the 2014 Issues and Options paper consultation. Nevertheless, this was not taken forward because the option was not deliverable: no credible potential new rural growth points were available at the time as none had been put forward for consideration. However the further 'call for sites' in 2015 resulted in several proposals for large-scale developments being put forward. Only four of these were considered to offer the opportunity for a stand-alone new settlement. Eleven sites were put forward which proposed more than 1,000 dwellings. Of these, seven were excluded from consideration as new settlements either because the proposal could not be considered as a stand-alone development separate from existing settlements or because the proposal did not have the potential to deliver a strategic level of growth. Further information is contained in the 'Garden Village Topic Paper'.
- 6.19 For completeness it is appropriate to test against sustainability appraisal objectives the principle of allocating smaller scale new settlements (1,000 – 2,000 dwellings) rather than larger scale new settlements (4,000 – 6,000 dwellings). The results of testing both options against the sustainability appraisal framework are set out in Appendix 7. This shows that a smaller scale new settlements option performs less well against sustainability objectives than a larger scale new settlements option, with more negative effects and fewer positive effects identified. This is caused by larger scale new settlements being more likely to support the provision of supporting shops, services and community facilities (including secondary schools) which is more likely to enable a degree of self-containment and internalisation of trips. Also larger scale new settlements provide greater amounts of housing and are more likely to be able to support affordable and specialised older people's housing. The

only area where the smaller scale new settlements option performs better is in the use of greenfield land, which results in a smaller potential impact on habitats, species and natural features.

- 6.20 The option of smaller scale new settlements has not been taken forward in considering alternative option scenarios. Many of the smaller large-scale sites that were put forward adjoined existing settlements and were therefore considered along with the other site submissions.
- 6.21 In order to generate realistic option scenarios, an assessment of sites that had been submitted to the Council for consideration has been undertaken so that only sites that are suitable, available and deliverable are considered. Further information on the assessment of sites and consideration of strategy options is contained in the 'Development Strategy and Site Selection Methodology' technical paper.
- 6.22 A large range of alternative option scenarios potentially could be generated, for example: scenarios that include or don't include new settlements, scenarios that include or don't include the redevelopment of the Stewartby brickworks, and scenarios which involve lower or higher levels of growth in other locations. However it is only necessary to test those option scenarios that are realistically capable of informing the development strategy of the local plan. This means that options must be capable of meeting the level of growth required to meet assessed needs as a minimum. Options that deliver a lower level of growth could not be included in the local plan (unless there was special justification) because the plan would be found unsound at examination. Nevertheless, at this stage there remains an element of uncertainty in relation to the eventual capacity of individual sites and so it is appropriate to test more option scenarios than just those that exactly meet the level of growth required. In order to allow for this uncertainty and to ensure that all potentially realistic option scenarios are tested, the testing includes all scenarios that are able to deliver growth within 10% of the level of growth required (7,040 – 8,604 dwellings).
- 6.23 In order to generate realistic option scenarios the following assumptions have been made:
- New settlement(s) – the number of dwellings delivered by new settlements is limited to 2,500 dwellings in total within the plan period (with the remainder beyond the plan period).
 - Stewartby brickworks – capacity is assumed to be 1,000 dwellings.

- Within and adjoining urban area – all suitable and available sites will be allocated (2,630 dwellings). It should be noted that the sustainability appraisal of the 2017 local plan consultation paper tested a figure of 1,988 dwellings. An explanation for the change (which is higher within the urban area but lower adjoining the urban area) is given in the ‘Development Strategy and Site Selection Methodology’ technical paper.
- Group 1 villages (key service centres) – the low (1,500 dwellings) and high (5,100 dwellings) growth options represent the allocations needed in villages to support the provision of a new primary school (one or two form entry respectively). Further information is given in the ‘Development Strategy and Site Selection Methodology’ technical paper. (It should be noted that the sustainability appraisal of the 2017 local plan consultation paper tested a low figure for Group 1 villages of 2,600 dwellings.)
- Group 2 villages (rural service centres) – the low growth option (225 dwellings) represents the amount of development that could be supported given the space currently available in existing primary schools. The high growth option (2,000 dwellings) represents the allocations needed in villages to support the provision of a new one form entry primary school in the village. (This takes account of the availability of suitable development sites in villages – only four Group 2 villages have sufficient development sites that could potentially generate sufficient dwellings to support a new school.)
- No allocations are made in villages below Group 2 level.

6.24 Initial sensitivity testing showed that the difference in effect on sustainability objectives between the low growth option and no development in Group 2 villages is not discernible or significant in sustainability terms. As a result it has been decided not to include option scenarios in the sustainability appraisal testing that have no development in Group 2 villages. This does not mean that the local plan could not select such an option for Group 2 villages as part of the development strategy, only that its effect is not shown separately in the comparison of alternative option scenarios. For completeness, initial sensitivity testing was also undertaken for option scenarios that exceed the level of growth required by more than 10%. This showed that for such options the types of effects identified by the assessment were similar to those for the comparable options with lower growth levels but at a greater magnitude. Nevertheless, for the reasons set out in paragraph 6.8 above, significantly higher levels of growth are not being pursued in the local plan.

6.25 The 36 alternative potential option scenarios that have been generated, taking account of the assumptions above, are shown in the table below. In order to generate a greater range of options that are able to meet the level of assessed need, a variant is introduced by allowing for a hybrid level of growth in Group 1 villages (so that two villages have high growth and one has

low growth). Those option scenarios that are able to deliver within the required range of growth (7,040 – 8,604 dwellings) are highlighted. The table shows that in all scenarios the strategy must include significant allocations in villages to be able to meet assessed needs, however any one of the other elements could be excluded and still achieve a scenario that meets assessed needs.

Option scenario	New settlements	Stewartby brickworks site	Within and adjoining urban area	Group 1 villages	Group 2 villages	Total dwellings	Option to be tested
1	2500	1000	2630	low growth 1500	low growth 225	7855	yes
2	2500	1000	2630	low growth 1500	high growth 2000	9630	no
3	2500	1000	2630	high growth 5100	low growth 225	11455	no
4	2500	1000	2630	high growth 5100	high growth 2000	13230	no
5	0	1000	2630	high growth 5100	low growth 225	8955	no
6	0	1000	2630	high growth 5100	high growth 2000	10730	no
7	0	1000	2630	low growth 1500	low growth 225	5355	no
8	0	1000	2630	low growth 1500	high growth 2000	7130	yes
9	2500	0	2630	high growth 5100	low growth 225	10455	no
10	2500	0	2630	high growth 5100	high growth 2000	12230	no
11	2500	0	2630	low growth 1500	low growth 225	6855	no
12	2500	0	2630	low growth 1500	high growth 2000	8630	no
13	2500	1000	0	high growth 5100	low growth 225	8825	no
14	2500	1000	0	high growth 5100	high growth 2000	10600	no
15	2500	1000	0	low growth 1500	low growth 225	5225	no
16	2500	1000	0	low growth 1500	high growth 2000	7000	no
17	2500	1000	2630	0	low growth 225	6355	no
18	2500	1000	2630	0	high growth 2000	8130	yes
19	0	0	2630	high growth 5100	low growth 225	7955	yes
20	0	0	2630	high growth 5100	high growth 2000	9730	no
21	0	0	2630	low growth 1500	low growth 225	4355	no
22	0	0	2630	low growth 1500	high growth 2000	6130	no
23	2500	0	0	high growth 5100	low growth 225	7825	yes

Option scenario	New settlements	Stewartby brickworks site	Within and adjoining urban area	Group 1 villages	Group 2 villages	Total dwellings	Option to be tested
24	2500	0	0	high growth 5100	high growth 2000	9600	no
25	2500	0	0	low growth 1500	low growth 225	4225	no
26	2500	0	0	low growth 1500	high growth 2000	6000	no
27	0	1000	0	high growth 5100	low growth 225	6325	no
28	0	1000	0	high growth 5100	high growth 2000	8100	yes
29	0	1000	0	low growth 1500	low growth 225	2725	no
30	0	1000	0	low growth 1500	high growth 2000	4500	no
31	2500	0	2630	hybrid 2500	low growth 225	7855	yes
32	2500	0	2630	hybrid 2500	high growth 2000	9630	no
33	0	0	2630	hybrid 2500	high growth 2000	7130	yes
34	0	0	2630	hybrid 2500	low growth 225	5355	no
35	2500	0	0	hybrid 2500	high growth 2000	7000	no
36	2500	0	0	hybrid 2500	low growth 225	5225	no

6.26 Eight options (1, 8, 18, 19, 23, 28, 31 and 33) have been tested against the sustainability objectives. The full results of this testing are given in Appendix 8. In summary the sustainability appraisal shows that distinct differences between options can be identified. The option that does not include growth in and around the urban area (option 23) performs least well, although option 28 is an exception: even though it does not include growth in and around the urban area, this is balanced by the effect of not including new settlements. Those options which do not include new settlements whilst including growth in and around the urban area (options 8, 19 and 33) perform well, as does option 1 which includes growth in all locations. Option 18, which does not include growth in Group 1 villages, performs poorly. For several sustainability objectives the effect for each option is uncertain because it largely depends on the detailed location or design of development. (This is tested separately in the sustainability appraisal of sites.)

6.27 In conclusion, sustainability testing shows that the following are the best performing option scenarios:

- Option 1 – new settlements, Stewartby brickworks, urban area, Group 1 villages (low), Group 2 villages (low)

- Option 8 – Stewartby brickworks, urban area, Group 1 villages (low), Group 2 villages (high)
- Option 19 – urban area, Group 1 villages (high), Group 2 villages (low)
- Option 33 – urban area, Group 1 villages (hybrid), Group 2 villages (high)

6.28 The options all require high levels of development in the rural villages (between 3,500 and 5,325 dwellings) unless new settlements are included, in which case rural village development can be reduced to 1,725 dwellings.

6.29 The Council's preferred strategy is option 1, which includes development in each of the locations shown in the option scenarios (with lower growth in Group 1 and Group 2 villages). This option performed at least as well against the sustainability objectives as the options which do not include new settlements. Amongst other advantages, option 1 meant that the lower growth option for Group 1 and Group 2 villages could be selected which would reduce the impacts of development on those villages whilst still meeting assessed needs. The inclusion of development in Group 2 villages (as opposed to no growth in these locations) was considered to be an opportunity to support existing services and facilities. The selection of an option which included new settlements meant that it will be important to mitigate the negative effects that have been identified for this option. This means that efforts should be made to promote sustainable lifestyles by improving infrastructure and encouraging walking and cycling within settlements (and particularly new settlements). Further information explaining how the preferred strategy was decided is contained in the 'Development Strategy and Site Selection Methodology' technical paper.

Testing the “do nothing” option

6.30 A “do nothing” option has also been tested. This option assumes that the Council does not plan for the distribution of growth. Instead growth to meet identified needs is assumed to occur in accordance with the National Planning Policy Framework's presumption in favour of development. This states that, in the absence of a local plan, planning permission for development should be granted unless adverse impacts would outweigh benefits when assessed against the policies in the Framework or if specific policies in the Framework restrict development (paragraph 14). As there is no Green Belt or designated areas for special landscape protection (such as National Parks or Areas of Outstanding Natural Beauty) in Bedford borough, this means that development has few restrictions on location. Development is therefore likely to occur in locations that are most attractive to developers. For housing this is likely to be dispersed in rural locations, although not

necessarily in or adjoining villages. The amount of development coming forward is likely to be similar to that if there were a local plan (as objectively assessed needs would still have to be met) but it would be on an uncoordinated and piecemeal basis. Infrastructure provision and any community benefits arising from development would not be coordinated. Development of brownfield land is unlikely to occur unless the site is particularly well located or does not require remediation.

- 6.31 The results of testing against the sustainability appraisal framework are set out in Appendix 9. This shows that a “do nothing” option is likely to have mainly negative effects on sustainability indicators and performs less well than any of the option scenarios tested above. No positive effects are identified. The likely negative effects include:
- an increase in journeys to access employment, shops, services and facilities
 - increased resource consumption
 - greater use of greenfield land which could affect habitats, species and natural features
 - rural economies, services and employment opportunities are likely to be harmed
 - there is likely to be a lack of provision of affordable housing, older persons housing and Traveller accommodation
 - development would be unlikely to help reduce deprivation in the urban area or increase access to essential services in the rural area
 - there is unlikely to be any opportunity for community involvement in place-shaping or building community cohesion
 - development is unlikely to promote local identity and sense of place, but is likely to harm landscapes and the countryside
 - there is likely to be an increase in car journeys to access employment, shops, services and facilities.
- 6.32 The sustainability appraisal shows that there are clear benefits from guiding the location of new development through a local plan. Furthermore, as explained in paragraph 6.8 above, it would not be reasonable to pursue a “do nothing” option because the National Planning Policy Framework requires local plans to plan positively for the development required in the area through a local plan.

Refining the preferred option

- 6.33 Paragraphs 6.26 - 6.29 above explain the production of the preferred strategy and its testing against sustainability objectives. The preferred strategy sets out a broad distribution of growth, however, it does not determine the location of new settlements or the distribution of growth between villages, only the total number of dwellings. These aspects are considered further below.

New settlements location

- 6.34 As explained in paragraph 6.18, four sites were considered that could potentially form stand-alone new settlements. These were: Colworth near Sharnbrook, Thurleigh Airfield, Twinwoods near Milton Ernest and Wyboston Garden Village. In summary they range from 4,000 to 6,000 dwellings in size. Each of them would include an element of employment provision and a range of other uses, including primary and secondary schools, open spaces and community facilities.
- 6.35 Consideration has been given to how to comparatively test the effect on sustainability of these alternative locations. The sustainability appraisal framework is a blunt tool that does not readily distinguish the special features of each individual site. A variation of this approach has therefore been taken to the assessment of new settlement alternatives. This compares their deliverability, physical limitations, physical impacts, adequacy of highway access and how they rated against 18 criteria for garden cities derived from those proposed by the Town and Country Planning Association and the Government's 'Locally Led Garden Towns and Villages' prospectus, 2016. Appendix 10 shows how the new settlement assessment criteria relate to the sustainability appraisal objectives and demonstrates that the criteria represent an appropriate framework for the assessment of new settlement site options. The methodology and outputs are described further in the 'Garden Village Topic Paper'.
- 6.36 In summary, the results showed that the Colworth Garden Village site at Sharnbrook was the most sustainable location. This was largely because this was the only site that could deliver a rail parkway station which could not only serve the new residents but also divert existing car drivers from the nearby A6 onto public transport, to get to Bedford or beyond. The station would also be advantageous to the existing employment site adjoining the proposed new settlement, making the location highly accessible.

Distribution of development between villages

- 6.37 The 'Development Strategy and Site Selection Methodology' technical paper explains that, unless there is spare school capacity, housing allocations need to be of a size sufficient to support the provision of a new primary school of at least one form entry. This means that strategic scale allocations (for the Group 1 key service centre villages) must be of 500, 1,000 or 1,500 dwellings. The preferred strategy assumes that the total growth in the Group 1 villages will be 1,500 dwellings. For the Group 2 rural service centre villages, the preferred strategy is based on a lower figure which represents the amount of development that could be supported given the space currently available in existing primary schools. This amounts to 225 dwellings in total.
- 6.38 Higher total numbers of 2,500 and 5,100 in the Group 1, and 2,000 in the Group 2 villages, as well as no growth have already been considered in paragraphs 6.24 – 6.29 above. However, given that there are eight Group 1 villages, some choices still have to be made as to which villages will receive growth. For the Group 2 villages, all villages that have capacity in their primary school have to receive some growth. Higher levels could not be supported in the Group 2 villages unless the growth would support a new school (ie 500 dwellings), however this level of growth would not fit with the settlement hierarchy.
- 6.39 For the Group 1 villages there are two options:
- Three Group 1 villages receive growth of 500 dwellings each, while five villages receive no growth – the more dispersed option.
 - One of the Group 1 villages receives growth of 1,500 dwellings, while seven villages receive no growth – the more concentrated option.
- 6.40 These alternatives have been tested against the sustainability appraisal objectives in Appendix 11. This shows that the differences between the options are not great, although the concentrated option of a single large growth village is likely to have more adverse effects than the dispersed option of three smaller growth villages. The local plan preferred option is based on distributing growth between three Group 1 key service centre villages.

6.41 The question that next needs to be considered is which three villages should receive growth of 500 dwellings each. In this instance the sustainability appraisal framework is a blunt tool that is not easily able to distinguish between separate villages. The figure for each village could comprise a number of different sites and so precise impacts cannot be determined. A better approach is to look at which villages should not receive any growth. The following principles have been taken into account.

- Recently completed or ongoing large-scale development in the village. This is relevant to the social objectives of sustainability appraisal such as promoting local identity, sense of place and social cohesion. It takes several years for large-scale new development to be absorbed into a village and new residents integrated into social structures.
- The close proximity of ongoing or planned large-scale development, particularly new settlements. This is relevant to environmental and social objectives of sustainability appraisal. Large-scale development can change significantly the character of the landscape, natural features and distinctive local environments. The cumulative and synergistic effects of large-scale developments in close proximity to each other can be significant in relation to the environment. Concerns over social effects are similar to those described above. Although new settlements might be expected to be self-contained socially, this will not be the case until development is sufficiently advanced, which can be many years after commencement. In the meantime, there can be effects on existing village social structures.

6.42 Using these principles would suggest that no growth should be directed to the following Group 1 key service centre villages.

- Shortstown – because of significant recent and ongoing expansion of about 1,400 dwellings.
- Wixams – because of significant recent and ongoing expansion of a new settlement of about 4,500 dwellings.
- Wootton – because of significant recent and ongoing expansion of about 1,300 dwellings.
- Sharnbrook – because of proposed growth of a new settlement of about 4,500 dwellings nearby at Lee Farm.
- Wilstead – because of committed and ongoing growth of a new settlement of about 4,500 dwellings nearby at Wixams.

6.43 The remaining Group 1 key service centre villages (Bromham, Clapham and Great Barford) were therefore each identified for growth of 500 dwellings in the local plan preferred option.

Changes as a result of consultation

- 6.44 Public consultation on a draft preferred strategy was undertaken for six weeks from April 2017 and the results informed the local plan as published for submission to the Planning Inspectorate for examination. Following the consultation changes were made to the strategy of the local plan: although the total amount of growth to be planned for remained the same, the distribution of that amount changed. These changes have been considered in relation to the sustainability appraisal framework. The changes to the strategy were as follows:
- Increase in the amount of growth within the urban area from 877 to 2,419.
 - Decrease in the amount of growth in the Group 1 key service centre villages from 2,600 to 1,500.
 - Decrease in the amount of growth on the edge of the urban area from 1,111 to 211.
- 6.45 The increase in the amount of growth within the urban area was the result of work undertaken through the One Public Estate initiative which demonstrated the deliverability of a number of sites that had not previously been available. A key principle of the local plan development strategy is to allocate all suitable and available sites within the urban area. This is because the urban area is the most accessible location in the borough where most facilities and services are located and the existing population is concentrated. Development within the urban area, particularly where it re-uses previously developed land, is the most sustainable location in the borough for growth. The Sustainability Appraisal Scoping Report showed that development in the urban area had mostly positive effects on sustainability objectives. The increase in the amount of growth allocated to the urban area is therefore clearly a sustainability benefit.
- 6.46 By contrast, growth in the Group 1 key service centre villages is less sustainable. The Sustainability Appraisal Scoping Report showed that development in such locations had mixed positive and negative effects on sustainability appraisal objectives. The decrease in the amount of growth allocated to the Group 1 key service centre villages and its re-provision within the urban area is therefore also a sustainability benefit.
- 6.47 The increase in the amount of growth within the urban area allowed corresponding reductions elsewhere. Rather than reducing the growth in the Group 1 key service centre villages still further (potentially resulting in only a single village allocation of 500 dwellings), the local plan strategy instead was to reduce the allocation to the edge of the urban area. The

reason for this given in the 'Development Strategy and Site Selection Methodology' technical paper was that the large scale urban extensions proposed at Renhold and Gibraltar Corner would have impinged on gaps between the current urban edge and existing settlements, increasing concerns about coalescence. Development on the edge of the urban area is generally considered to be more sustainable than in rural village locations because it can often benefit from the sustainability advantages of the urban area. The decision to prefer development in the Group 1 key service centre villages therefore needs careful examination.

6.48 The test is whether the general supposed sustainability advantages of edge of urban areas over rural village locations are achieved in these specific locations, where the urban extensions are at Renhold and Gibraltar Corner, while the rural locations are village extensions to two of Bromham, Clapham and Great Barford. There are several relevant sustainability appraisal objectives and detailed decision making criteria that can be drawn from the sustainability appraisal framework. These can be grouped under the following headings:

- Transport issues – whether the development would reduce the need to travel, encourage sustainable transport and reduce traffic congestion.
- Natural environment issues – the effect of development on natural features, distinctive local environments and green infrastructure networks.
- Social issues – the effect of development on access to services and facilities, social cohesion, creating strong local identity and a sense of place.

6.49 In relation to transport issues, the urban extensions are likely to have a positive effect while village extensions are likely to have a more negative effect. This is because the urban extensions would be closer to existing centres which have a good range of shopping, other facilities and services. Renhold would be 0.4 miles from the Church Road local centre, while Gibraltar Corner would be 1.2 miles from Kempston district centre (and 0.25 miles from the nearest neighbourhood centre). They would both also be reasonably close (about 3 miles) to Bedford town centre with its wider range of facilities. Although village extensions would be close to existing village centres, these do not have comprehensive facilities, resulting in the greater likelihood of journeys being made to Bedford town centre (3.4 miles from Bromham, 2.2 miles from Clapham and 5.1 miles from Great Barford). These longer journeys are likely to increase car use, vehicular emissions and traffic congestion.

- 6.50 In relation to natural environment issues, the urban extensions are likely to have a negative effect while village extensions are likely to have an uncertain effect. This is because the urban extensions would join existing rural settlements to the urban area, bridging natural breaks in development and infilling currently open land. These natural gaps are distinctive and locally valued as well as being important parts of the green infrastructure network. For the village extensions, although they would also result in the development of open countryside which could affect natural features and green infrastructure, these are not natural gaps between settlements. The effect is therefore uncertain and likely to depend on detailed design and layout considerations.
- 6.51 In relation to social issues, the urban extensions are likely to have mostly uncertain effects while village extensions are likely to have mostly positive effects. The proximity of the urban extensions to the urban area and its facilities is likely to increase access to services and facilities, whereas this is less likely for the village extensions. However, in relation to social cohesion and creating a sense of place, it is more likely that village extensions would be positively absorbed into the existing community and add to the sense of place. This is likely to be more difficult to achieve in an urban extension, particularly when it is absorbing an existing settlement.
- 6.52 In conclusion, the sustainability effects of the two options of urban extensions or village expansion are finely balanced. The consideration of transport issues would tend to favour the urban extensions whereas the consideration of natural environment and social issues would tend to favour the village extensions. Neither option can be said to be clearly better or worse than the other in sustainability terms.

Testing the preferred option

- 6.53 Having considered all reasonable alternatives, the Council's preferred option (the draft local plan for submission to the Planning Inspectorate for examination) has been tested against sustainability appraisal objectives. In summary, the focus of the preferred option is on:
- The creation of a new settlement at Colworth Garden Village Sharnbrook that will provide a new focus for strategic growth.
 - Regeneration of the large brownfield site opportunity at the former Stewartby brickworks site.

- Regeneration in the urban area of Bedford and Kempston, together with limited urban extensions, with growth in housing, employment, retail and other facilities. This will include regeneration projects to create a vibrant and modern town centre while preserving the established character.
- Development in villages at a scale that takes account of existing commitments and infrastructure capacity / potential infrastructure capacity. Growth in the key service centres of Bromham, Clapham and Great Barford will provide primarily new homes but also services for the local community. Growth in the rural key service centre villages will be more limited to help support local services. Some development may also be appropriate in smaller settlements if needed and supported by the community but this is not allocated in the local plan.
- Maintaining a living, working countryside and improving the rural area’s self-reliance by supporting opportunities to diversify the rural economy while conserving and enhancing the natural environment.

6.54 In relation to employment land, the ‘Development Strategy and Site Selection Methodology’ technical paper notes that, once existing commitments are taken into account, there is no clear need to allocate additional land specifically for business, industry or warehousing uses. As a result, the preferred option is not to allocate specific sites to provide additional land for such employment but to include a general policy in the local plan to explain how the Council will deal with any proposals to develop new free-standing employment sites. New employment development should be located near to main roads, preferably re-using existing employment sites, and be in locations with good access by public transport, bicycle and on foot. In accordance with national government guidance, the preferred location for retail and office development is the town centre.

6.55 The preferred option is shown in the table below.

Type of development	Location of development	Amount of housing development
New settlement	Colworth Garden Village Sharnbrook – 4,500 dwellings in total however only 2,500 will be developed by 2035	2,500
Brownfield site opportunity	Former Stewartby brickworks site	1,000

Bedford / Kempston urban area	<u>Within the urban area</u>	
	Duckmill Lane	20
	268 – 308 Ampthill Road	35
	329 Bedford Rd, Kempston	5
	Gold Lane Biddenham	160
	Beverley Crescent	175
	Ford End Road	600
	Bedford rail station site	100
	Greyfriars	200
	Borough Hall	100
	South of the river	900
	Mowbray Road	124
	Total	2,419
	<u>Extensions to the urban area</u>	
Lodge Hill	84	
Land r/o 94-122 Bromham Road	27	
Graze Hill	100	
Total	211	
	Total within urban area and extensions	2,630
Key service centres	Bromham	500
	Clapham	500
	Gt Barford	500
	Total	1,500
Rural service centres	Carlton	25-50
	Harrold	25-50
	Milton Ernest	25-50
	Oakley	25-50
	Roxton – land north of School Lane	25-50

	Turvey Total (mid point)	25-50 225
Total		7,855

- 6.56 The preferred option does not specify individual sites in the villages (except in the case of Roxton), only the total amount of growth. This is because the selection of individual sites in the villages is not made through the local plan but in neighbourhood development plans produced by the respective parish councils. Nevertheless, the Council has undertaken a sustainability appraisal of individual sites that has been published separately. The appraisal of site allocation policies, for example where sites are allocated in the urban area, is considered in section 7 of this report. In Roxton village, the choice between alternative site options has been made on the basis of their ability to integrate with the existing built form of the village and avoid linear development that might harm the landscape.
- 6.57 The result of testing the preferred option (the draft local plan for submission to the Planning Inspectorate for examination) against sustainability objectives is set out in the table below.

Sustainability appraisal objective	Preferred option
1. Ensure resilience to and reduce the effects of climate change through effective adaptation and mitigation	XX MAJOR NEGATIVE EFFECT (LT,P,ST,T) The preferred option is likely to have a major negative impact on the achievement of this objective. Greater emissions from construction are a likely temporary effect. However, poorer air quality is also a likely permanent effect in all locations because of more journeys by car to work and facilities. There is no direct relationship between the preferred option and the provision of low carbon buildings or generation of renewable energy. An increased risk of serious flooding would make a site unsuitable, although minor impacts can be mitigated.
2. Promote sustainable lifestyles, use resources efficiently, maximise recycling and re-use	X NEGATIVE EFFECT (LT,P) The preferred option is likely to increase resource consumption (energy, water, land) and waste production. Although the use of previously developed land is maximised (by

	<p>allocating development at the former Stewartby brickworks and urban area sites), much new development will still be on greenfield land. The new settlement will use substantial land resource. Improved infrastructure as a result of development could encourage walking and cycling within settlements. However, the focus of employment on the primary route network and town centre could result in more commuting by car from rural settlements unless public transport is improved. There is no direct relationship between the preferred option and the generation of renewable energy or recycling of waste.</p>
<p>3. Conserve and enhance the built and historic environment, heritage assets and their settings</p>	<p>? UNCERTAIN EFFECT The impact on heritage depends on the exact location of development sites although a seriously harmful impact would make a site unsuitable. Minor adverse impacts should be mitigated. The impact on the built environment and existing townscapes largely depends on the quality of design.</p>
<p>4. Create, conserve, protect and enhance the borough's natural features, distinctive local environments, habitats and species</p>	<p>X NEGATIVE EFFECT (ST,MT,LT,P) Although the use of previously developed land is maximised (by allocating development at the former Stewartby brickworks and urban area sites), much new development will be on greenfield land. The new settlement is also likely to use a large area, but has potential to enhance green infrastructure significantly. Any use of greenfield land can potentially affect habitats, species and natural features depending on the exact location of development sites although a seriously harmful impact could make a site unsuitable. Minor adverse impacts should be mitigated.</p>
<p>5. Promote strong, sustained and balanced economic growth, stimulating job creation across a range of sectors</p>	<p>✓ POSITIVE EFFECT (LT,P,ST,T) The preferred option is likely to make a positive contribution to economic growth and job creation because it is likely to strengthen existing rural economies, services and increase employment opportunities. It will also benefit construction jobs (temporary effect). The focus of employment on the primary route network and town centre is likely to benefit economic growth, job creation and the regeneration of older stock.</p>
<p>6. Improve the skills of the labour force, matching skill outcome with market</p>	<p>✓ POSITIVE EFFECT (LT,P) The preferred option is likely to improve skills levels by providing new employment</p>

needs	opportunities.
7. Create a distinctive, attractive and multi-functional town centre	<p>✓✓ MAJOR POSITIVE EFFECT (LT,P)</p> <p>The preferred option is likely to have a positive effect on Bedford town centre as growth throughout the borough will increase its viability and support regeneration. The focus of business and employment on the town centre is particularly likely to help create an attractive and successful town centre.</p>
8. Meet the needs of a changing population	<p>✓✓ MAJOR POSITIVE EFFECT (ST,MT,LT,P)</p> <p>The preferred option is likely to have a positive effect and is likely to help meet the needs of a growing population through providing a range of housing (including affordable and older persons), employment, services, facilities and associated infrastructure. There is no direct relationship between the preferred option and the provision of Traveller accommodation.</p>
9.Reduce levels of deprivation, inequalities and exclusion	<p>✓✓ MAJOR POSITIVE EFFECT (MT,LT,P)</p> <p>The preferred option is likely to help reduce deprivation in terms of health, income, skills and unemployment in the urban area as well as increase access to essential services in the rural area. The focus of business and employment on the town centre is particularly likely to benefit the most deprived wards in the urban area.</p>
10. Promote community involvement in place-shaping, promote healthy and safe communities	<p>✓ POSITIVE EFFECT (ST,MT,LT,T,P)</p> <p>Consultation in the course of preparing the draft local plan itself represents an opportunity for community involvement in place-shaping (temporary effect). The selection of sites through neighbourhood planning is likely to build community cohesion and capacity. There is potential for new development to promote healthy and safe communities by providing walking and cycling facilities, open space and leisure facilities, and designing out crime, particularly when it is on sites of a significant size.</p>
11. Promote a strong local identity and sense of place	<p>✓ POSITIVE EFFECT (MT,LT, P)</p> <p>The preferred option is likely to have a positive effect because the new settlement makes up a substantial proportion of growth. A new settlement is likely to provide the opportunity</p>

	to incorporate garden city principles which should promote strong local identity and sense of place.
12. Minimise growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport	<p>✓ POSITIVE EFFECT (MT,LT, P)</p> <p>The preferred option is likely to contribute to reducing the need to travel by increasing the overall provision of services, facilities and employment across the borough and making rural public transport and other sustainable modes increasingly viable and therefore reliable. The provision of a new parkway railway station to serve the north of the borough should result in a shift from car use. Improved infrastructure as a result of development could encourage walking and cycling within settlements. However, focussing employment on the primary route network and town centre could result in greater traffic congestion.</p>

Mitigation

Stage B: Developing and refining options and assessing effects.

B4: Consider ways of mitigating adverse effects and maximising beneficial effects.

- 6.58 This section considers the mitigation of identified effects arising as a result of the preferred option for the distribution of growth. Further consideration of the mitigation of effects arising from the implementation of detailed policies is considered in the next section of this report.
- 6.59 In summary the preferred option is likely to have both positive and negative effects on sustainability indicators. The likely positive effects include:
- Maximising the use of previously developed land.
 - Improved infrastructure.
 - Economic growth, job creation and improved skills.

- Bedford town centre becoming more attractive and successful.
- Providing a range of housing (including affordable and older persons) and helping reduce deprivation.
- Promoting healthy communities by providing walking and cycling facilities, open space and leisure facilities.
- Reducing the need to travel by increasing the overall provision of services, facilities and employment across the borough.
- Making rural public transport and other sustainable modes of travel increasingly viable.
- Providing a viable alternative to private car commuting from the north of the borough.
- Promoting a strong local identity and sense of place in the proposed new settlement.

6.60 The likely negative effects include:

- Most new development will be on greenfield land.
- Use of greenfield land could potentially affect habitats, species and natural features.
- Increased resource consumption (energy, water, land) and waste production.
- Employment growth could lead to greater traffic congestion and poorer air quality unless public transport is improved.

6.61 To minimise the negative effects of the preferred option and increase sustainability benefits, the following mitigation measures should be included in detailed policies in the local plan.

- Encourage development on previously developed land so as to minimise the use of greenfield land.
- Avoid development of the best and most versatile agricultural land.
- Ensure that development avoids land at risk of flooding.
- Avoid low density development so as to make efficient use of land and encourage higher density in appropriate locations.
- Maximise the energy efficiency of development so as to reduce carbon emissions.
- Minimise the water consumption of development so as to reduce impact on water resources.
- Ensure that development minimises impacts on the historic environment.
- Ensure that development minimises impacts on nature conservation assets
- Ensure that development is of high quality design that is sensitive to local character and is appropriately landscaped so as to reduce the impact on the built environment and existing communities.

- Ensure that housing development meets a range of needs.
- Prioritise development on sites with good access to local facilities, public transport links and key infrastructure so as to minimise the need to travel support public transport and discourage car use.
- Improve the provision of dedicated walking and cycling infrastructure with new development so that the use of private cars is minimised.

6.62 The table below shows how the mitigation recommendations have been addressed in the policies of the draft local plan. The recommendation to encourage higher density development was not included in the local plan because the Council’s view was that this type of blanket policy was not as useful as a site specific approach which would require development to take account of the available opportunities of the site to provide an appropriate density.

Mitigation recommendation	How addressed in local plan
Encourage development on previously developed land so as to minimise the use of greenfield land.	Policy 47S seeks to maximise the delivery of development through the reuse of suitably located previously developed land provided that it is not of high environmental or biodiversity value.
Avoid development of the best and most versatile agricultural land.	Policy 47S requires that poorer quality land should be used in preference to the best and most versatile agricultural land (grades 1-3a).
Ensure that development avoids land at risk of flooding.	Policy 96 directs development to areas at lowest risk of flooding by applying the sequential test and, where necessary, the exception test, in line with national policy.
Avoid low density development so as to make efficient use of land and encourage higher density in appropriate locations.	The local plan does not specifically encourage higher density development. Instead, Policy 30 requires development to respect its context and opportunities to enhance character, quality and local distinctiveness. Design codes are encouraged for large-scale development.
Maximise the energy efficiency of development so as to reduce carbon emissions.	Policy 54 requires development to integrate the principles of sustainable design and layout. Policy 55 requires new buildings to be energy efficient and exceed standard Building Regulation requirements.
Minimise the water consumption of development so as to	Policy 53 requires development to minimise the use of water and achieve

reduce impact on water resources.	the higher water efficiency standard in the Building Regulations.
Ensure that development minimises impacts on the historic environment.	Policy 42 requires development to preserve, and where possible, enhance the significance of heritage assets and minimise impacts on the historic environment.
Ensure that development minimises impacts on nature conservation assets.	Policy 43S requires development to assess the impact of proposals on biodiversity and geodiversity value.
Ensure that development is of high quality design that is sensitive to local character and is appropriately landscaped so as to reduce the impact on the built environment and existing communities.	Policy 30 requires development to be of the highest design quality and contribute positively to the area's character and identity. Policy 39 requires development to incorporate landscaping.
Ensure that housing development meets a range of needs.	Policies 59S, 60S and 61 require new housing to provide a mix of dwelling size and type to meet the identified needs of the community.
Prioritise development on sites with good access to local facilities, public transport links and key infrastructure so as to minimise the need to travel support public transport and discourage car use.	Policies 2S and 92 provide the framework for ensuring that the local plan delivers sufficient new development in sustainable locations to meet identified needs and that the impact of traffic has been taken into account.
Improve the provision of dedicated walking and cycling infrastructure with new development so that the use of private cars is minimised	Policy 90S requires development to provide necessary infrastructure, which will include the provision of new pedestrian and cycle routes and facilities.

7 Appraisal findings – local plan policies

- 7.1 This section summarises the appraisal of the policies that are included in the draft local plan for submission to the Planning Inspectorate for examination. The policies are evaluated against the sustainability appraisal framework. Each policy was assessed in detail to determine whether it supported or conflicted with each sustainability objective, the size of impact and how this may change over time. Each detailed assessment is supported by comments to explain or clarify the rating and a summary of its overall impact. The appraisal of the policies is set out in full in Appendix 12 and summarised below.
- 7.2 A high-level assessment of the sites that were put forward in response to the Council's 'call for sites' is contained in a separate document, the Sustainability Appraisal of Sites. The high-level assessment of the sites that have been included as allocations in the local plan has been reproduced in Appendix 12 and supplemented so that mitigation proposals together with any secondary, cumulative or synergistic effects are considered. In addition, any additional site specific allocations that emerged (such as the One Public Estate sites) are included in the appendix.
- 7.3 In summary the assessment of the policies showed that most policies had primarily positive effects on sustainability objectives, with many having no negative effects at all. However several policies were assessed as having some negative effects or uncertain effects.
- 7.4 In relation to policies that allocated specific development sites, the appraisal showed that previously developed sites located within the urban area had strongly positive effects on sustainability objectives while sites which had not been previously developed, tended to have some negative effects as well as positive effects. The positive effects for sites that were not located within or adjoining the urban area were less strong.
- 7.5 Conflicts between policies facilitating development and environmental objectives are to be expected and do not invalidate local plan policies. Instead they help identify the need for mitigation that can be incorporated into the local plan. Not all negative effects can be fully mitigated however, for example where these are implicit in the location of a site. Recommendations for the mitigation of negative and uncertain effects are considered in the section below.

Mitigation

Stage B: Developing and refining options and assessing effects.

B4: Consider ways of mitigating adverse effects and maximising beneficial effects.

- 7.6 This section considers the effects arising as a result of the local plan policies and how they can be mitigated. The identification and mitigation of significant effects is a key requirement of the SEA Directive. Many of the mitigation measures proposed are in the form of general recommendations or points for consideration.

Primary effects

- 7.7 The appraisal of the policies showed that the policies were mostly sustainable, with a predominance of positive effects. The table below lists the negative or uncertain effects that were identified by the appraisal, together with the recommended mitigation and how this has been actioned in the local plan.

Policy	Mitigation	How actioned
Policy 2S – Spatial strategy	The local plan should encourage use of previously developed land, avoid development on the best agricultural land, ensure development avoids land at risk of flooding, encourage higher density development, maximise energy efficiency, minimise water consumption, minimise impacts on the historic environment, ensure development minimises impacts on nature conservation, ensure development reduces impact on the built environment and existing communities, minimise the need to travel, and improve walking and cycling infrastructure.	Policies 47S, 96, 29S, 30, 55, 53, 42, 43S, 44, 31, 32, 33, 34, 54, 92, 94S
Policy 3S – Amount and distribution of housing development	The local plan should encourage use of previously developed land, avoid development on the best agricultural land, ensure development avoids land at risk of flooding, encourage higher density development, maximise energy efficiency, minimise water consumption, minimise	Policies 47S, 96, 29S, 30, 55, 53, 42, 43S, 44, 31, 32, 33, 34,

	impacts on the historic environment, ensure development minimises impacts on nature conservation, ensure development reduces impact on the built environment and existing communities, minimise the need to travel, and improve walking and cycling infrastructure.	54, 92, 94S
Policy 11 – Land at Ford End Road, Bedford	Ensure that retail provision is of a size and type appropriate to the local centre and does not adversely affect Bedford town centre.	Within policy 11, policy 85
Policy 14 – Town centre uses	Proposals should take account of potential impacts on the AQMA.	Policies 33, 48, 92
Policy 16 – Riverside development	Ensure no negative effect on river habitats and species by carefully managing change.	Policies 43S, 44
Policy 18 – Land to the north of Beverley Crescent, Bedford	Protected trees should be preserved.	Within policy 18
Policy 25 – Former Stewartby brickworks	Policy should secure improvements to public transport serving the site, community facilities, links to existing village facilities and appropriate conservation of heritage assets.	Within policy 25
Policy 27 – Colworth Garden Village	Proposals for Colworth Garden Village should encourage the generation of renewable energy, minimise energy and water use, ensure the protection of heritage assets and ensure that any retail facilities primarily serve local every day needs. The development should take the opportunity to reduce deprivation and meet specific needs. It will be important to ensure the delivery of a new rail station.	Policies 55, 53, 42, 85, 90S, 92
Policy 28 – Land north of School Lane, Roxton	Development of the site should secure appropriate conservation of heritage assets.	Within policy 28, policy 42
Policy 36S – Green infrastructure	The design of green infrastructure should take account of community safety issues.	Policies 30, 33
Policy 37S – Forest of Marston Vale	New woodland areas should be carefully designed to reduce fear of crime.	Policies 30, 33
Policy 39 – Landscaping in new development	New landscaping should be carefully designed to reduce fear of crime.	Policies 30, 33
Policy 44 – Enhancing biodiversity	The creation of new habitats should be carefully designed to reduce fear of crime.	Policies 30, 33
Policy 45 – River Great Ouse	Improvements to the river should be careful to avoid increasing the risk	Policies 96, 42,

	of flooding, adversely affecting heritage assets and natural features, distinctive local environments, habitats and species.	43S, 44
Policy 54 – Development layout and accessibility	New landscaping should be carefully designed to reduce fear of crime.	Policies 30, 33
Policy 57 – Renewable energy - broad locations suitable for renewable energy development	Proposals for large scale wind and solar energy development should take account of potential impacts on heritage assets, natural features, habitats and species, and townscapes.	Within policy 57, policies 58, 42, 43S, 44, 30, 31
Policy 66 – Proposals for Traveller sites on unallocated land in the countryside	Proposals for Traveller sites should preferably be located in locations close to facilities so as to minimise car use. They should take account of potential impacts on heritage assets, natural features, habitats and species, social cohesion and townscapes.	Within policy 66, policies 54, 92, 42, 43S, 44, 30, 31
Policy 67 – Design of Gypsy, Traveller and Travelling Showpeople sites	Proposals for Traveller sites should preferably be located in locations close to facilities so as to minimise car use. They should take account of potential impacts on heritage assets, natural features, habitats and species, social cohesion and townscapes.	Within policy 67, policies 54, 92, 42, 43S, 44, 30, 31
Policy 68 – Reuse and replacement of rural buildings in the countryside	Proposals should take account of the potential impact on wildlife habitats and species.	Policies 43S, 44
Policy 70 – Affordable housing to meet local needs in the rural area	Development proposals should take account of the potential impact on heritage assets.	Policy 42
Policy 71 - Accommodation for rural workers	Proposals for housing for rural workers should preferably be located in locations close to facilities so as to minimise car use. They should take account of potential impacts on heritage assets, natural features, habitats and species and townscapes.	Within policy 71, policies 54, 92, 42, 43S, 44, 30, 31
Policy 72S – Amount and distribution of employment development	Proposals for new employment development should take account of potential impacts on air quality and carbon emissions, heritage assets, natural features, habitats and species and townscapes.	Policies 33, 48, 92, 55, 42, 43S, 44, 30, 31
Policy 74 - Other employment sites	Proposals for new employment development should take account of potential impacts on air quality and carbon emissions and townscapes. New employment should be of a type that supports economic growth, improves workforce skills and reduces deprivation. Any retail uses should not adversely affect town centre.	Policies 33, 48, 92, 55, 30, 31, 82
Policy 75S – Additional strategic	Proposals for new employment development should take account of	Policies 33, 48,

employment development	potential impacts on air quality and carbon emissions, heritage assets, natural features, habitats and species and townscapes.	92, 55, 42, 43S, 44, 30, 31
Policy 76 – Wyboston Lakes	Proposals for development should take account of potential impacts on air quality and carbon emissions, natural features, habitats and species and townscapes.	Policies 33, 48, 92, 55, 42, 43S, 44, 30, 31
Policy 78 – New employment development in the countryside	Proposals for rural business should preferably be located in locations close to facilities so as to minimise car use. They should take account of potential impacts on air quality and carbon emissions, heritage assets, natural features, habitats and species and townscapes.	Policies 54, 92, 33, 48, 55, 42, 43S, 44, 30, 31
Policy 80S – Hierarchy of town centres	Retail development proposals should take account of potential impacts on heritage assets.	Policy 42
Policy 81S – Amount and location of new retail development	Retail development proposals should take account of potential impacts on heritage assets.	Policy 42
Policy 82 – Out of centre development	Retail development proposals should take account of potential impacts on heritage assets.	Policy 42
Policy 83 – Kempston district centre – new retail development	Retail development proposals should take account of potential impacts on heritage assets.	Policy 42
Policy 85 – New shops in local centres	Retail development proposals should take account of potential impacts on heritage assets.	Policy 42
Policy 95 – Access to the countryside	Improvements to countryside access should be careful to avoid harm to natural features, habitats and species.	Policy 43S, 44
Policy 101 – New sports and leisure facilities	New sports and leisure provision should be carefully located to be close to the population they serve and encourage travel by sustainable modes.	Within policy 101, policies 54, 92, 91
Policy 102 – New community facilities	New community provision should be carefully located to be close to the population they serve and encourage travel by sustainable modes.	Within policy 102, policies 54, 92, 91
Policy 103 – Loss of existing leisure and sports facilities	Proposals for the loss of existing leisure and sports and facilities should only be permitted if the facilities are no longer needed or they are to be replaced.	Within policy 103

7.8 For certain sites where development is allocated, further work is required on detailed assessments of flood risk, heritage assets and biodiversity before mitigation can be determined. This will depend on the detailed design and layout of the site in question and will therefore be more appropriate for consideration at the planning application stage. This has been identified in the ‘key principles of development’ part of the wording of each policy.

Secondary, cumulative and synergistic effects

7.9 The assessment of secondary, cumulative and synergistic effects is important because sustainability problems may result from the accumulation of many small impacts, rather than just a few large ones. Two approaches have been taken to this assessment. The first examines the impacts in relation to individual policies in the plan and is taken from the assessments in Appendix 12. The second examines the predicted cumulative effects of the plan policies on the sustainability objectives as set out in Appendix 13.

7.10 The table below lists the effects that were identified in Appendix 12.

Policy	Effect identified
Policy 4 – Development in villages with a Settlement Policy Area	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 5 – Development in Small Settlements	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 6 – Development in the countryside	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 7 – Key development sites in St Paul’s Square, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 8 - Land at Duckmill Lane / Bedesman Lane, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 9 – The station area, Ashburnham Road, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes. The provision of better public transport interchange facilities has positive synergistic effects on a number of sustainability indicators.

Policy 10 – Greyfriars, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes. The provision of better public transport interchange facilities has positive synergistic effects on a number of sustainability indicators.
Policy 11 – Land at Ford End Road, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes. The remediation of contaminated land and the significant development of a range of uses have positive synergistic effects on a number of sustainability indicators.
Policy 12 – Land at Borough Hall, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 13 – Land south of the river, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 17 – Land rear of 268-308 Ampthill Road, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 18 – Land to the north of Beverley Crescent, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 19 – Land at Gold Lane, Biddenham	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 20 – Land at 329 Bedford Road, Kempston	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 21 – Land at Mowbray Road, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 22 – Land at Lodge Hill, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 23 – Land to the rear of Bromham Road, Biddenham	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 24 - Land at Grazehill, Bedford	Development of this site together with others in the urban area is likely to have positive cumulative effects on the use of sustainable transport modes.
Policy 25 – Former Stewartby brickworks	Secondary impacts on adjacent land uses including employment and waste processing facilities.
Policy 27 – Colworth Garden Village	Development of the site, particularly the inclusion of a parkway rail station with access from the A6, is likely to have positive secondary and synergistic effects on traffic and congestion

	in and around Bedford as it is likely to divert commuters from car to rail travel. This is likely to serve not just the residents of the new settlement but those from a much wider area across north Bedford and into Northamptonshire.
Policy 28 – Land north of School Lane, Roxton	Development is likely to have a positive secondary effect on existing village facilities.
Policy 36S – Green infrastructure	The policy is likely to have positive secondary effects on car use, air quality and flooding.
Policy 43S – Protecting biodiversity and geodiversity	The policy is likely to have positive secondary effects on car use, air quality and flooding.
Policy 44 – Enhancing biodiversity	The policy is likely to have positive secondary effects on car use, air quality and flooding.
Policy 46 – Local Green Space	The policy is likely to have positive secondary effects on heritage assets, biodiversity, car use, air quality and flooding.
Policy 57 – Renewable energy - broad locations suitable for renewable energy development	Potential cumulative effects of proposals in combination with other large scale renewable energy schemes should also be considered.
Policy 70 – Affordable housing to meet local needs in the rural area	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 72S – Amount and distribution of employment development	In combination with new housing development, the policy is likely to have a positive synergistic effect on minimising growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport.
Policy 74 - Other employment sites	In combination with new housing development, the policy is likely to have a positive synergistic effect on minimising growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport. Potential secondary effect on town centre vitality and viability if retail use allowed.
Policy 75S – Additional strategic employment development	In combination with new housing development, the policy is likely to have a positive synergistic effect on minimising growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport.
Policy 79 - Improvement and provision of new visitor accommodation	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 80S – Hierarchy of town centres	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 81S – Amount and location of	The containment of development has positive synergistic effects on a number of

new retail development	sustainability indicators.
Policy 82 – Out of centre development	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 83 – Kempston district centre – new retail development	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 85 – New shops in local centres	The containment of development has positive synergistic effects on a number of sustainability indicators.
Policy 90S – Delivering infrastructure	The provision of infrastructure has positive synergistic effects on a number of sustainability indicators.

7.11 The secondary, cumulative and synergistic effects identified were mostly positive. The main positive effects identified were both secondary and synergistic as a result of reducing traffic and congestion. This affected the sustainability objectives concerned with minimising growth in car usage, reducing the need to travel, promoting the shift to more sustainable modes of transport, reducing the effects of climate change, promoting sustainable lifestyles and using resources efficiently. Other positive secondary effects identified were on conserving heritage assets, habitats and species, and maintaining village facilities.

7.12 The only negative effects identified were:

- Policy 25 – Former Stewartby brickworks. Secondary impacts on adjacent land uses including employment and waste processing facilities. This impact is addressed in the local plan by Policy 48.
- Policy 57 – Renewable energy - broad locations suitable for renewable energy development. Potential cumulative effects of proposals in combination with other large scale renewable energy schemes should also be considered. This impact is addressed in the local plan by Policy 58.
- Policy 74 - Other employment sites. Potential secondary effect on town centre vitality and viability if retail use allowed. This impact is addressed in the local plan by Policy 82.

7.13 From Appendix 13 the assessment identified mostly positive cumulative impacts on sustainability objectives. Neutral or uncertain effects were identified for five of the objectives. No negative cumulative impacts were identified.

7.14 In relation to the positive cumulative impacts, the assessment identified cumulative impacts in relation to the following sustainability objectives:

- 1. Ensure resilience to and reduce the effects of climate change through effective adaptation and mitigation.
- 2. Promote sustainable lifestyles, use resources efficiently, maximise recycling and re-use.
- 8. Meet the needs of a changing population.
- 9. Reduce levels of deprivation, inequalities and exclusion.
- 10. Promote community involvement in place-shaping, promote healthy and safe communities.
- 11. Promote a strong local identity and sense of place.
- 12. Minimise growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport.

7.15 For each of these objectives this is to some extent because of the location of development allocations largely within or adjoining the urban area. This has the effect of concentrating development which benefits many sustainability objectives, particularly those concerned with climate change, promoting sustainable lifestyles and minimising growth in car usage (objectives 1, 2 and 12). Furthermore, the allocation of sites to provide housing, together with several specific policies concerned with the form of housing provision particularly benefits sustainability objective 8 – meet the needs of a changing population, and 9 – reduce levels of deprivation, inequalities and exclusion.

7.16 Consideration has been given to cumulative effects with development proposals in adjoining local authorities and other strategic projects in the area. Although significant levels of development, particularly housing development, are planned in all of the adjoining local authority areas, this is unlikely to significantly affect Bedford borough. This is because work undertaken for the Strategic Housing Market Assessment shows that Bedford's housing market area is largely self-contained. However there may be some cumulative benefits for Bedford town centre and local employment (sustainability objectives 5, 6 and 7). Significant strategic policies that could affect the area over the lifetime of the local plan include the East-West rail project and the National Infrastructure Commission's investigation of the growth potential of the Oxford to Cambridge corridor. However at this time detailed proposals have not been published and so cannot be taken into account in the local plan or this Sustainability Appraisal Report.

Uncertainties and risks

- 7.17 The main uncertainties and risks relate to non-implementation of policies in the local plan. If individual policies are not implemented, the various positive effects identified will not be realised. In particular the benefits of increased housing provision would be lost. To avoid potential negative sustainability effects from development, particularly on climate change, promoting sustainable lifestyles and minimising the growth in car usage, it is important that energy and water efficiency policies are rigorously applied when considering planning applications for development, and that the use of public transport, cycling and walking is encourage.

Difficulties encountered

- 7.18 A key issue in undertaking the appraisal of the local plan was the strategic nature of the document in relation to some of the housing allocations and the uncertainty surrounding precisely how its ambitions would be implemented on the ground. A key assumption was made that the policies in the local plan would be fully implemented (i.e. they were taken at 'face value'); however, if it appeared that full implementation would be problematic or involve trade-offs, these have been highlighted.

8 Implementation and future tasks

Proposals for monitoring

Stage B: Developing and refining options and assessing effects.

B5: Propose measures to monitor the significant effects of implementing the local plan.

- 8.1 It is important to monitor the local plan in order to identify any unforeseen effects on sustainability and to enable appropriate remedial action to be taken. Monitoring allows the actual effects of the plan to be tested against those predicted in the sustainability appraisal. It helps to ensure that problems that arise during implementation can be identified and future predictions made more accurate. It is important to distinguish the monitoring of the performance of the plan against sustainability objectives and monitoring against the plan's objectives. Both should be done but only the former is required as part of the sustainability appraisal process.
- 8.2 Monitoring will cover the indicators listed in Appendix 4 and the baseline information in Appendix 2. In particular, attention will focus on those policies and proposals where significant cumulative, secondary and synergistic effects were predicted (in section 7).
- 8.3 It is intended that the sustainability monitoring will be incorporated into existing monitoring arrangements and be included in the Council's Monitoring Report. It is possible that existing monitoring arrangements will help provide relevant information. Where monitoring identifies unforeseen adverse effects it will be appropriate to consider in the Monitoring Report whether remedial action is needed. This could include reviewing the plan or making recommendations on the implementation of specific policies. A monitoring framework showing the relevant Monitoring Report indicators is set out below.

Significant effect identified	How it will be monitored and source of data	When action should be considered	What action should be taken	Who is responsible for action
1. Ensure resilience to and reduce the effects of climate change through effective adaptation and mitigation	<ul style="list-style-type: none"> • Number of dwellings in flood zones 2 and 3a/3b – Environment Agency • Nitrogen dioxide levels in the AQMA / air quality in transport corridors – BBC Local Air Quality Management • Number of ‘net zero carbon’ homes – BBC planning applications • Number of planning applications for renewable energy schemes granted permission – BBC planning applications 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective.	BBC
2. Promote sustainable lifestyles, use resources efficiently, maximise recycling and re-use	<ul style="list-style-type: none"> • Number of planning applications for renewable energy schemes granted permission – BBC planning applications • Mode of travel to work – ONS • % of development on previously developed land – BBC Housing Monitoring Report • % of municipal waste recycled BBC Waste Performance Datasheet • Water consumption – Anglian Water • Energy consumption – BEIS 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective.	BBC
8. Meet the needs of a changing population	<ul style="list-style-type: none"> • Level of infrastructure provision through S106 / CIL (education / affordable housing) – BBC CIL Income Reports • Number of traveller pitches/plots granted permission. – BBC planning 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective.	BBC

Significant effect identified	How it will be monitored and source of data	When action should be considered	What action should be taken	Who is responsible for action
	applications <ul style="list-style-type: none"> • Housing units completed per year – BBC Housing Monitoring Report • Number of affordable dwelling completions – BBC Housing Monitoring Report • Size of dwellings completed per year – BBC Housing Monitoring Report • Number of people aged 75+ – ONS 			
9. Reduce levels of deprivation, inequalities and exclusion	<ul style="list-style-type: none"> • Households within 400m of a bus service – BBC Transport Monitoring Report • Deprivation levels by ward – DCLG 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective. Review Local Transport Plan	BBC
10. Promote community involvement in place-shaping, promote healthy and safe communities	<ul style="list-style-type: none"> • Number of people registered with the Council's Environment Team as a community volunteer – BBC Community Engagement • % of people travel to work by walking and cycling – ONS • Crime rates – BBC Social & Community Monitoring Report • Fear of crime levels – BBC Social & Community Monitoring Report • Number of representations on policy documents received from ethnic minority groups – BBC • Drinking water quality – Anglian Water 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective.	BBC

Significant effect identified	How it will be monitored and source of data	When action should be considered	What action should be taken	Who is responsible for action
	<ul style="list-style-type: none"> • Range of recreation and leisure facilities – BBC 			
11. Promote a strong local identity and sense of place	<ul style="list-style-type: none"> • Number of grants issued for repairs, reinstatement of traditional shop fronts and bringing vacant units back into use – BBC 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective.	BBC
12. Minimise growth in car usage, reduce the need to travel and promote the shift to more sustainable modes of transport	<ul style="list-style-type: none"> • Level of infrastructure provision (highways, public transport, rights of way) through S106 / CIL – BBC CIL Income Reports • Number of cyclists into the town centre – BBC Transport Monitoring Report • Mode of travel to work – ONS • Households within 400m of a bus service – BBC Transport Monitoring Report • Traffic levels in the town centre – BBC Transport Monitoring Report 	When monitoring shows a consistent trend that cumulative positive effect predicted is not occurring, that cannot be accounted for by any other external influence.	Review policies in this plan with the aim of better achieving this sustainability objective. Review Local Transport Plan	BBC

Consultation

Stage D: Seek representations on the sustainability appraisal report from consultation bodies and the public.

- 8.4 This document represents Stage D of the sustainability appraisal process. Any significant changes made to the draft local plan following pre-submission consultation or as a result of the public examination will be further assessed prior to adoption of the local plan. Minor changes are unlikely to result in changes to the assessment findings.

Post adoption

Stage E: Post adoption reporting and monitoring.

E1: Prepare and publish post-adoption monitoring statement.

E2 Monitor significant effects of implementing the local plan.

E3: Respond to adverse effects.

- 8.5 Once the local plan has been adopted, the SEA Directive requires that the Council produces a statement setting out how environmental considerations and consultation responses are reflected in the plan and how its implementation will be monitored in the future. This will be broadened to include other sustainability considerations addressed in the sustainability appraisal as well as environmental issues.
- 8.6 In addition, it will be necessary to monitor the significant effects of implementing the local plan (Stage E of the sustainability appraisal process). If adverse effects are identified, the Council may need to consider what action should be taken as set out in the table above. The results of monitoring will be published in the Council's Monitoring Report.