

# **Charnwood Local Plan**

**Sustainability Appraisal:**

**Spatial Strategy**

**Second Interim SA Report**

**October 2019**

<b>Project Role</b>	<b>Name</b>	<b>Position</b>	<b>Actions Summary</b>	<b>Date</b>
<b>Consultant</b>	Abi Rhodes Matthew Stopforth	Graduate Consultant	Preparation of 1 <sup>st</sup> draft housing appraisals.	December 2017 – January 2018
<b>Lead Consultant</b>	Ian McCluskey	Principal Sustainability Appraisal Consultant	Reviewed and finalised 1 <sup>st</sup> draft appraisals	January 8 <sup>th</sup> 2018
<b>Technical Specialist</b>	Mark Fessey	Associate Consultant	Technical review of 1 <sup>st</sup> draft appraisals	January 16 <sup>th</sup> 2018
<b>Lead Consultant</b>	Ian McCluskey	Principal Consultant	Completion of additional appraisal tasks including employment options  Preparation of interim SA Report	January - April 2018
<b>Technical Specialist</b>	Mark Fessey	Associate Consultant	Review of First Interim SA Report	April 24 <sup>th</sup> 2018
<b>Consultant</b>	Nicole Norman Abi Rhodes	Graduate Consultant Planning Consultant	Input to updated strategic and site options appraisals	October 2018 – Feb 2019
<b>Lead Consultant</b>	Ian McCluskey	Principal Sustainability Appraisal Consultant	Reviewed and finalised appraisals  Quality check on site options  Updates to Interim SA Report (i.e. Second Interim SA Report)	February – April 2019

<b><i>Project Role</i></b>	<b><i>Name</i></b>	<b><i>Position</i></b>	<b><i>Actions Summary</i></b>	<b><i>Date</i></b>
<b><i>Technical Specialist</i></b>	Mark Fessey	Associate Consultant	Review of updated Interim SA Report	April 2019
<b><i>Consultant</i></b>	Larna Smith Ian McCluskey	Graduate Consultant Principal Consultant	Appraisal of draft plan	June-August 2019
<b><i>Lead Consultant</i></b>	Ian McCluskey	Principal Consultant	Review and completion of Interim SA Report	September 2019

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**Appendix A: Breakdown of high level housing options**

**Appendix B: Appraisal of high-level options for housing growth**

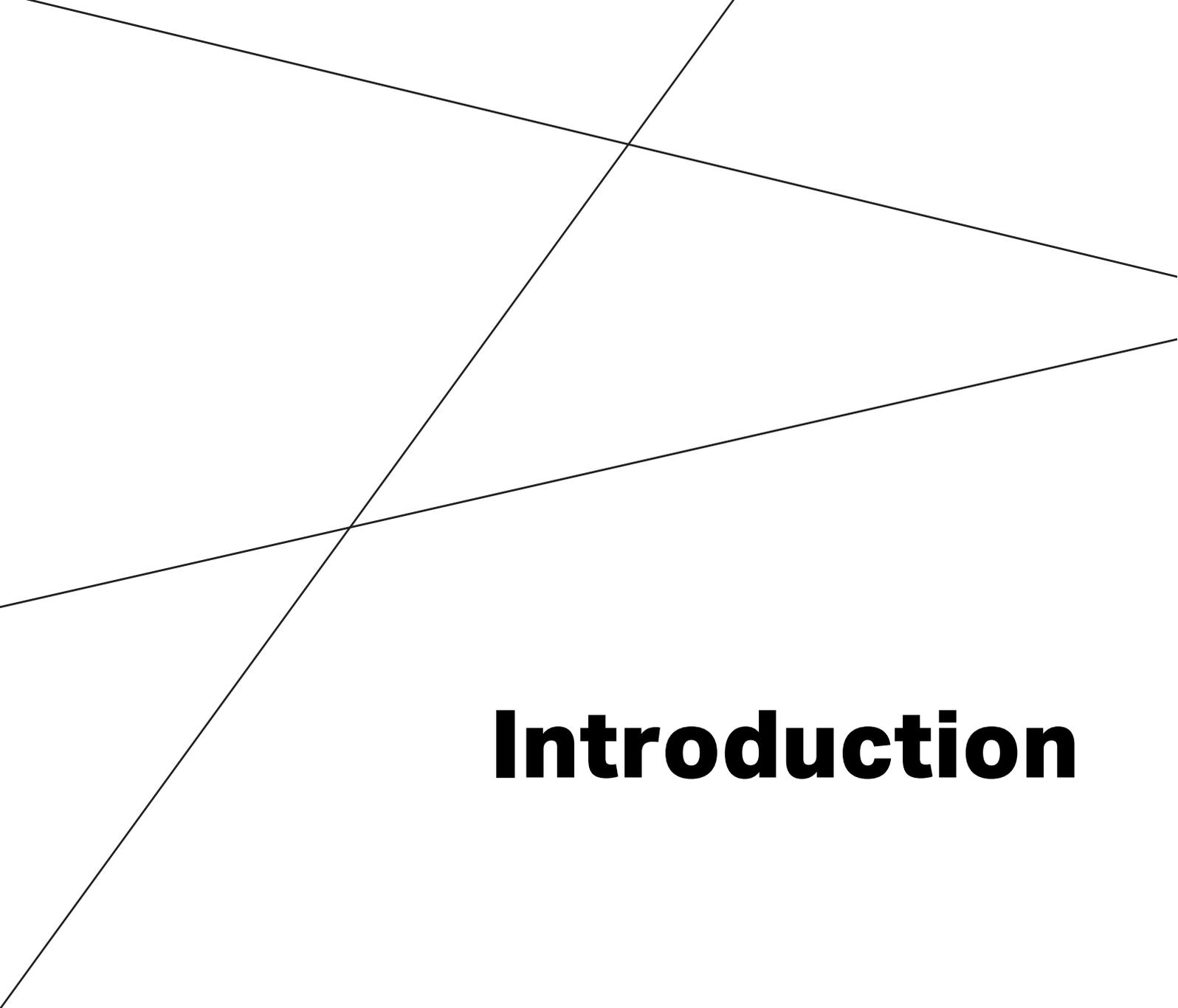
**Appendix C: Breakdown of refined housing options**

**Appendix D: Appraisal of refined options for housing growth**

**Appendix E: Appraisal of employment alternatives**

**Appendix F: Site Assessment Framework**

**Appendix E: Scenario Assessment Criteria**

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# **Introduction**

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# 1 INTRODUCTION

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## 1.1 Background

- 1.1.1 AECOM has been commissioned by Charnwood Borough Council to undertake a sustainability appraisal (SA) in support of the new Local Plan (the 'Plan').
- 1.1.2 The new Plan will be a single plan (rather than multiple documents) that covers a longer time period; reflecting government guidance.
- 1.1.3 The new Plan is being prepared in the context of new evidence (e.g. the Government's standard method for assessing local housing need), the Strategic Growth Plan for Leicester and Leicestershire and changes to government policy approaches to affordable and brownfield housing.
- 1.1.4 The Council has already undertaken initial work in considering the different options for meeting its development needs up to 2036. This involved the preparation of a consultation document "Towards a Local Plan for Charnwood", which was supported by an interim SA Report.
- 1.1.5 Following on from this consultation, further work has been undertaken by the Council to move towards a strategy for the key issues of housing and employment growth and distribution. This additional work has involved refinement of the options for growth as well as testing a range of site specific options.
- 1.1.6 Further SA work has been undertaken to assess the implications of the refined options and to highlight the broad constraints and opportunities associated with individual site options.
- 1.1.7 This Second Interim Sustainability Appraisal Report contains the findings associated with the additional SA work that has been undertaken, specifically;
- A summary of the SA scope and methodologies.
  - Consideration and appraisal of alternative approaches to the key issues of housing and employment growth and distribution.
  - Appraisal of site specific options.
- 1.1.8 It should be noted that this interim SA Report does not constitute an 'SA Report' as defined by the SEA Regulations (*i.e. the SA Report that should be prepared and consulted upon alongside the draft Local Plan at Regulation 19 stage of the Planning Regulations*). Rather, this second interim SA report documents the current stages of SA that have been undertaken to help influence the plan-making process. It is not a legal obligation to consult upon interim SA findings, but it is helpful to aid in decision making, as well as achieving effective and transparent consultation.

## 1.2 Overview of the plan area

- 1.2.1 Charnwood is one of seven Leicestershire districts located around the city of Leicester (which form the Leicester and Leicestershire Housing Market Area).
- 1.2.2 As illustrated on figure 1.1 below, Charnwood (demarked by a red boundary) directly borders Leicester to the south, whilst Nottingham and Derby are within relatively close proximity to the north and provide sources of employment.
- 1.2.3 The borough is well connected with access to both the M1 motorway to the west and Midland Mainline Railway Line to the east. Given its strong links with key centres of population, and cross border features such as the Charnwood Forest, there is a need to consider the Plan in its wider context.
- 1.2.4 Like many parts of the UK, there is pressure for housing development to support a growing, aging and changing demographic.
- 1.2.5 Charnwood's main centre of population and employment is Loughborough, which is home to a renowned university and is a key location for economic growth. A range of smaller settlements are dotted across the Borough, with several service centres dotted along the Soar Valley along the A6. A larger number of smaller settlements are located within the plan area, with relatively large areas of countryside.
- 1.2.6 The Charnwood Forest is a key natural feature within the Borough which forms part of the larger National Forest than runs across North West Leicestershire and Hinckley .and Bosworth.

*Figure 1.1 - The Local Plan area*



### 1.3 Overview of the new Local Plan

- 1.3.1 The new Local Plan will set out the amount and the location of new housing and employment development to meet its assessed need for development, and core policies to support the spatial strategy and ensure sustainable growth.
- 1.3.2 There is a vision and strategic objectives already established for the Adopted Charnwood Local Plan Core Strategy (2011-2028). However, the new Local Plan will have a new vision and objectives to reflect the latest issues and evidence.
- 1.3.3 The new vision and objectives have not yet been finalised; but are expected to build upon the existing vision and objectives and progress made on the Core Strategy so far.
- 1.3.4 The existing vision is set out below for context:

#### *The Core Strategy Vision for Charnwood 2028*

*In 2028 Charnwood will be one of the most desirable place to live, work and visit in the East Midlands. Development will have been managed to improve the economy, quality of life and the environment. Charnwood will be recognised for the role Loughborough plays in the region's knowledge-based economy.*

*Our strong and diverse economy will provide more employment opportunities for local people including higher skilled, better paid jobs in high technology research and manufacturing, sports, tourism, creative and cultural industry clusters. Growing business will have been retained and new investment secured.*

*The Loughborough Science and Enterprise Park and growing Loughborough University will be at the heart of Loughborough's brand as a 'centre for excellence'. Business and technological links with the City of Leicester will have been strengthened through the Watermead Regeneration Corridor.*

*Our landscape and the special buildings, heritage and ecology it contains will be in a good state. Our picturesque villages will have retained their strong sense of identity.*

*Our community will have access to a range of green spaces, leisure and recreational facilities across Charnwood and new parkland in Loughborough and Thurmaston will be provided. The Charnwood Forest will be recognised as a Regional Park.*

*The River Soar and Wreake will be improved for wildlife and people.*

*Charnwood will be recognised for delivering growth to a high design quality that benefits the community.*

*The demand for housing will be focused on Loughborough and the edge of Leicester City. New sustainable urban extensions at West Loughborough and Thurmaston, as well as other planned areas of growth, will incorporate good quality design and reflect our strong local distinctiveness. Our community will have access to homes to suit their needs. In particular, there will be a good provision of affordable housing particularly in rural communities.*

*Issues previously associated with houses in multiple occupation will have been managed and social cohesion will have improved.*

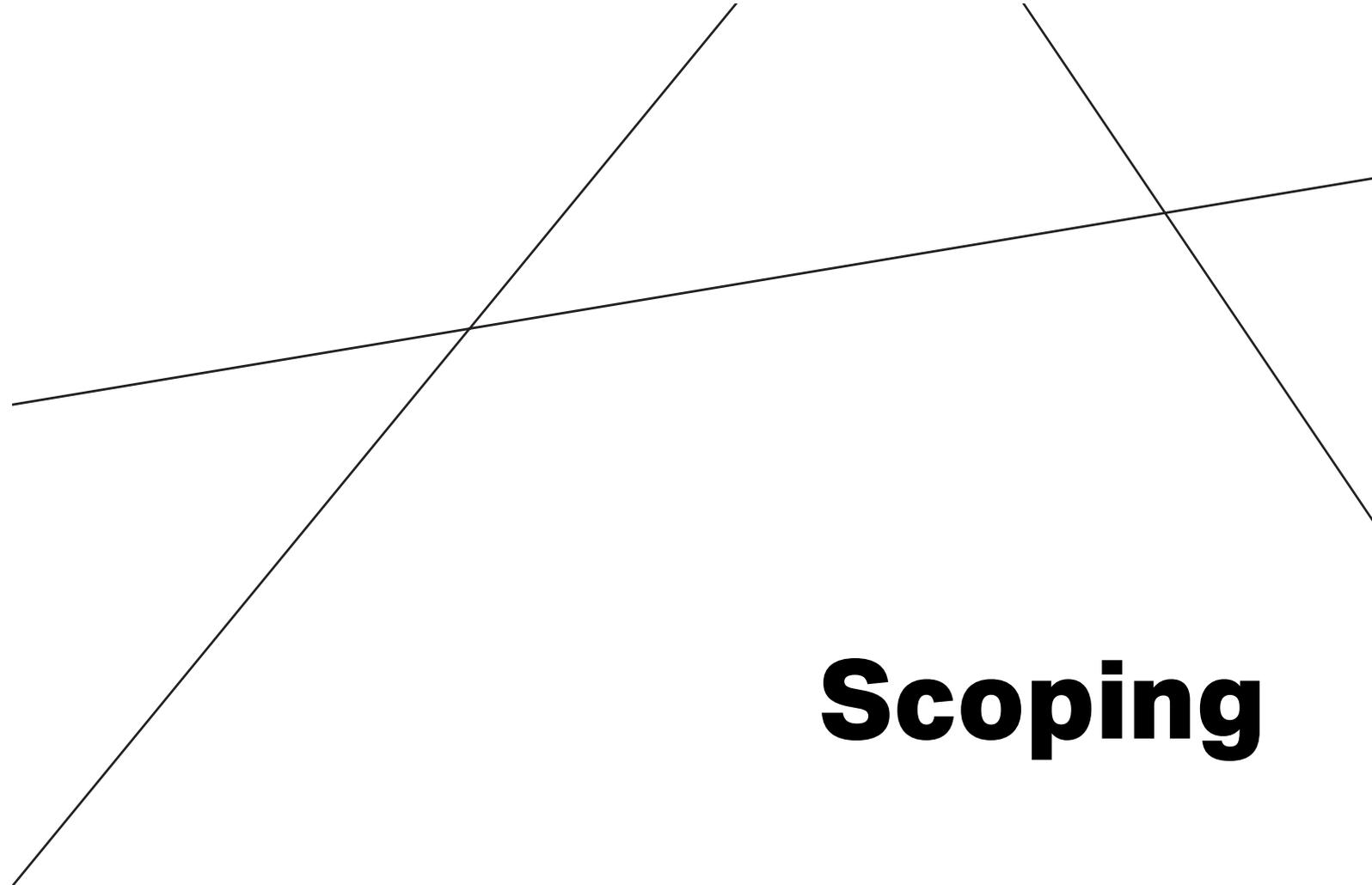
*Loughborough will continue to be the main economic, social and cultural heart of the Borough. It will be an attractive, compact and 'walkable' destination for shopping, leisure, entertainment and culture.*

*Our other settlements, including a regenerated Shepshed, will have an attractive provision of local shops, culture and leisure facilities.*

*Our community will have better access to jobs and services, with a choice to walk or cycle. For longer trips Charnwood will be known for its excellent connections by bus or rail, including a restored Great Central Railway. Some trips will no longer be necessary as an expansive broadband network will make Charnwood one of the best connected semi-rural boroughs in the country.*

*Our community will enjoy a cleaner and greener environment. Charnwood will be well prepared for the impacts of climate change and will be playing its part in reducing greenhouse gas emissions.*

*Our community will have a sense of ownership and increased pride in their local areas due to strong neighbourhood planning.*

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# Scoping

**02**

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## 2 SCOPING

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### 2.1 Background

- 2.1.1 The Scoping stage of the SA process is used to establish the key issues that should be the focus of the appraisal, as well as the assessment methodologies.
- 2.1.2 A Scoping Report was prepared and published for consultation in January 2017. Following consideration of the comments received, the scope of the SA has been determined and has provided the baseline position against which appraisals have been undertaken.
- 2.1.3 It should be noted that the scope of the SA is fluid and will be updated throughout the plan making process in light of new evidence. The scope of the SA will be presented in full within the final SA Report (representing an update to the Scoping Report).

### 2.2 Key issues

- 2.2.1 The key issues identified through the scoping process so far are summarised in table 2.1 below.

*Table 2.1: Key sustainability issues identified through scoping*

<p><b>Landscape Character</b></p> <ul style="list-style-type: none"><li>• Pressure on landscape character and condition from habitat fragmentation, urban intrusion and commercial agriculture intensification in several LCAs.</li><li>• Maintaining settlement and landscape identity caused by pressure on open land between settlements particularly within the Soar and Wreake valleys.</li><li>• The amount of area of relative tranquillity within Charnwood is declining. There is a lack of tranquillity surrounding Loughborough, Shepshed, Leicester, the Soar Valley and the M1 corridor.</li><li>• Infrastructure and development are creating barriers within the Borough, particularly restricting movement between east to west.</li><li>• There is a large-scale programme of afforestation in the National Forest area of the Borough, which contributes to LCA objectives for Charnwood Forest.</li></ul>
<p><b>Biodiversity and Nature Conservation</b></p> <ul style="list-style-type: none"><li>• Loss and fragmentation of habitats, leading to potential harm to species due to development pressure.</li><li>• Condition of many designated sites (SSSIs) is unfavourable.</li><li>• Important habitats and species in the Borough are vulnerable to the effects of climate change.</li><li>• The Soar Valley and Charnwood Forest are important areas for nature conservation.</li></ul>

*Table 2.1: Key sustainability issues identified through scoping*

<p><b>Water Environment</b></p> <ul style="list-style-type: none"><li>• The ecological quality of the Borough's watercourses is generally low, with several watercourses failing to meet WFD objectives.</li><li>• Water resources in the Borough experience a moderate level of stress. The regional water resources strategy aims to reduce water demand and improve water usage, reducing the impact of water abstraction on the water environment.</li><li>• The Borough provides public water supply storage for other areas in the region.</li><li>• There is some pressure on water resources from the quarrying and aggregate industries and agriculture.</li><li>• Future development may place pressure on existing water treatment facilities requiring upgrade or expansion of treatment systems to ensure no detriment to the quality of receiving watercourses.</li><li>• The rivers Soar and Wreake are the principal sources of flooding in the Borough.</li><li>• Climate change is likely to cause a significant increase in flood risk.</li><li>• Flooding has the potential to mobilise contaminants in the Borough.</li><li>• There are a relatively limited number of sustainable drainage (SuDS) schemes in the Borough.</li></ul>
<p><b>Land</b></p> <ul style="list-style-type: none"><li>• The Borough has a variety of important geological sites.</li><li>• Good quality agricultural land is at risk from development.</li><li>• Modern agricultural practices are leading to increased soil erosion.</li><li>• There are a number of contaminated sites within the Borough, with a cluster of historic landfills in the Soar Valley.</li></ul>
<p><b>Historic Environment</b></p> <ul style="list-style-type: none"><li>• There are a significant number of heritage assets in the Borough that need to be preserved.</li><li>• There are a number of heritage assets at risk, several of which do not have a plan in place to provide protection and restoration.</li><li>• Heritage assets not legally protected are at risk from development.</li><li>• Development may adversely affect the setting of heritage assets.</li></ul>

*Table 2.1: Key sustainability issues identified through scoping*

<p><b>Air Quality</b></p> <ul style="list-style-type: none"><li>• Loughborough, Syston and Mountsorrel suffer from poor air quality.</li><li>• Increased congestion could lead to a degradation in air quality of the Borough.</li></ul>
<p><b>Climate</b></p> <ul style="list-style-type: none"><li>• The Borough is predicted to have increased summer temperatures, decreased summer rainfall, increased winter rainfall and increased frequency of severe weather events.</li><li>• Increased rainfall and severe weather events increase the flood risk.</li><li>• Biodiversity may be negatively impacted by climate change, particularly along the Borough's watercourses.</li><li>• There is significant potential for renewable energy generation in the Borough.</li><li>• There is increased risk to public health due to increased summer temperatures and increased flood risk.</li><li>• Increased population and increased development may increase the Borough's greenhouse gas emissions.</li></ul>
<p><b>Population</b></p> <ul style="list-style-type: none"><li>• The population of the Borough is increasing and Charnwood has a very high population density. This is increasing pressure on community services and facilities, and housing provision in the Borough.</li><li>• High student population in Loughborough places pressure on the town and its permanent residents.</li><li>• Educational attainment levels in the Borough are slightly lower than the national average.</li><li>• There are pockets of deprivation, with five of Leicestershire's 10 most deprived areas within the Borough.</li><li>• Crime and community safety is a cause of concern for the local population.</li><li>• Domestic abuse incidents have increased in the Borough.</li><li>• The Borough has the highest NEET rate in Leicestershire.</li></ul>
<p><b>Human Health</b></p> <ul style="list-style-type: none"><li>• There is considerable variation in life expectancy between people living in the least deprived and most deprived areas of the Borough.</li><li>• The Borough has higher than the national average levels of adult and child obesity.</li></ul>

*Table 2.1: Key sustainability issues identified through scoping*

<ul style="list-style-type: none"><li>• There is a falling number of smokers and smoking-related deaths in the Borough.</li></ul>
<p><b>Local Economy</b></p> <ul style="list-style-type: none"><li>• The local economy is relatively strong, with a lower than average unemployment rate.</li><li>• Scientific and high-technology industries are growing in the Borough, providing economic diversification.</li><li>• Average salary rates are less than the national average.</li><li>• There is a significant difference between male and female average salaries.</li></ul>
<p><b>Material Assets</b></p> <ul style="list-style-type: none"><li>• There is a lack of accessibility and public transport infrastructure in rural areas such as The Wolds.</li><li>• Car use is increasing and the number of cars is predicted to grow significantly in the future, which will place additional pressure on the road transport network serving the Borough.</li><li>• There is a relative lack of footpaths in the east of the Borough.</li><li>• The cycle network is improving, particularly in Loughborough and the Soar Valley.</li><li>• Some rural areas suffer from limited accessibility to services.</li><li>• There is a deficiency of parks and open spaces in Loughborough.</li><li>• There is a lack of accessibility to open space, particularly in Shepshed and some rural service centres.</li><li>• Green infrastructure, including green wedges, are under pressure from development.</li></ul>
<p><b>Waste and Minerals</b></p> <ul style="list-style-type: none"><li>• Whilst Charnwood has a relatively high rate of recycling and composting, more than 50% of waste is not treated in these ways.</li><li>• Future population growth is likely to place increased pressure on waste management systems and facilities.</li><li>• There continues to be significant mineral extraction in the Borough.</li></ul>

## 2.3 SA Framework

- 2.3.1 Table 2.2 sets out the fourteen SA objectives that have been established as a result of the scoping process (i.e. by establishing the key issues that need to be addressed through the SA process). Each SA objective is supported by a list of sub-criteria and potential indicators for monitoring.
- 2.3.2 The SA Framework forms a basis for the appraisal of all elements of the Plan, and any reasonable alternatives. Essentially, the SA seeks to determine how the Plan performs in relation to each of the SA Objectives and whether the proposals would lead to a significant effect on the baseline position associated with each SA Objective.
- 2.3.3 The supporting appraisal criteria are devised to help guide the appraisal process and prompt thought and discussion about the key issues for each objective. However, they are not intended to be answered one-by-one for every single element of the plan.

*Table 2.2: The SA Framework (topics, objectives and supporting questions)*

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>1. Landscape</b> - Protect and enhance the integrity and quality of the Borough's urban and rural landscapes, maintaining local distinctiveness and sense of place.</p>	<ul style="list-style-type: none"> <li>- Protect and enhance landscape character in accordance with management objectives.</li> <li>- Maintain settlement identity and prevent coalescence.</li> <li>- Protect and enhance areas of tranquillity.</li> <li>- Promote schemes designed to promote the diversity of landscape and built character into new development.</li> <li>- Minimise detrimental visual intrusion.</li> <li>- Minimise light pollution.</li> </ul>	<ul style="list-style-type: none"> <li>- Change in quality of landscape character and condition.</li> <li>- The condition and quality of new characteristics introduced to the environment.</li> <li>- Percentage of open countryside.</li> <li>- Change in areas designated for their landscape value.</li> </ul>
<p><b>2. Biodiversity and nature conservation</b> - Protect and enhance biodiversity, habitats and species</p>	<ul style="list-style-type: none"> <li>- Protect and enhance designated sites including SSSIs, LNRs and LWSs.</li> <li>- Protect and enhance priority habitats and species.</li> <li>- Contribute to the protection and creation of new BAP habitats.</li> <li>- Avoid habitat fragmentation and increase connectivity of habitats.</li> <li>- Enhance community engagement with biodiversity.</li> <li>- Encourage the protection and provision of green and open spaces.</li> </ul>	<ul style="list-style-type: none"> <li>- Condition of designated sites.</li> <li>- Planning/applications refused/granted in designated sites, green wedges and wildlife corridors.</li> <li>- Percentage of land designated as nature conservation sites as a result of Local Plan policies.</li> <li>- Completed development that has resulted in the loss or creation/restoration of BAP habitats.</li> </ul>

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>3. Water Quality -</b> Protect and improve the quality and quantity of the water in the Borough's surface and groundwaters.</p>	<ul style="list-style-type: none"> <li>- Contribute to the achievement of WFD objectives.</li> <li>- Encourage sustainable and efficient management of water resources.</li> <li>- Protect and where possible improve drinking water quality.</li> <li>- Improve water quality in the Borough's watercourses.</li> <li>- Enhancement and recreation of natural watercourses.</li> <li>- Increase the use of SuDS.</li> </ul>	<ul style="list-style-type: none"> <li>- Water quality of the Borough's watercourses.</li> <li>- Number of pollution incidents.</li> <li>- Number of SuDS schemes installed.</li> <li>- Number of schemes contributing to the achievement of WFD objectives.</li> <li>- Percentage of waterbodies achieving 'Good' ecological status.</li> </ul>
<p><b>4. Flood Risk –</b> Reduce the risk of flooding to existing communities and ensure no new developments are at risk.</p>	<ul style="list-style-type: none"> <li>- Minimise the risk of flooding to people and properties.</li> <li>- Promote and increase the use of SuDS that result in Greenfield or better run-off rates.</li> <li>- Only development appropriate to the Flood Zone shall take place.</li> <li>- All new development takes account of the 2016 Climate Change allowances.</li> </ul>	<ul style="list-style-type: none"> <li>- Number of developments accompanied by a Surface water Management Plans.</li> <li>- Number of SuDS schemes installed.</li> </ul>
<p><b>5. Land -</b> Protect the Borough's soil resources.</p>	<ul style="list-style-type: none"> <li>- Reduce soil erosion and protect and enhance soil quality and quantity.</li> <li>- Minimise the loss of Grade 2 and Grade 3a ALC land.</li> <li>- Reduce contamination of soils from development, industry or agriculture.</li> <li>- Promote the use of brownfield land for development where possible.</li> <li>- Increase the remediation and regeneration of contaminated land.</li> </ul>	<ul style="list-style-type: none"> <li>- Area of greenfield land affected by development.</li> <li>- Areas of ALC grading 2 and 3a lost to development.</li> <li>- Number of land remediation schemes.</li> </ul>
<p><b>6. Air quality -</b> Improve local air quality</p>	<ul style="list-style-type: none"> <li>- Maintain and improve local air quality.</li> <li>- Promote measures that will remove the occurrence of AQMAs.</li> <li>- Reduce the impacts on air quality from transport.</li> <li>- Mitigate against the uses that generate NO2 or other particulates.</li> </ul>	<ul style="list-style-type: none"> <li>- Rate of transport modal shift across Borough.</li> <li>- Exceedances of air quality objectives.</li> <li>- Nitrogen dioxide, sulphur dioxide and particulate emissions.</li> <li>- Population living in AQMAs.</li> <li>- Number of complaints received regarding odour nuisance.</li> </ul>

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>7. Climate change</b> - Reduce the impacts of climate change and reduce greenhouse gas emissions.</p>	<ul style="list-style-type: none"> <li>- Deliver schemes that promote habitat and species resilience and adaptability to the effects of climate change.</li> <li>- Promote measures that minimise greenhouse gas emissions.</li> <li>- Minimise the likely impacts of climate change through promotion of appropriate adaptation measures in new development.</li> <li>- Promote the development of renewable energy generation.</li> <li>- Promote water efficiency measures in new development.</li> <li>- Reduce waste and increase reuse, recycling and energy produced of waste.</li> <li>- Promote measures that reduce the need to travel and travel distances.</li> <li>- Promote measures to reduce the need to travel by car.</li> <li>- Promote use of public transport.</li> </ul>	<ul style="list-style-type: none"> <li>- Greenhouse gas emissions.</li> <li>- New development achieving 'good', 'very good' or 'excellent' BREEAM or EcoHomes rating.</li> <li>- Proportion of total electricity consumption from renewable sources.</li> <li>- Energy and water use per household.</li> <li>- Condition of designated sites.</li> <li>- Waste to landfill, recycling and composting rates.</li> <li>- Peak traffic flows.</li> <li>- Number of public transport services and cycle routes created.</li> <li>- % change in number of people using public transport.</li> </ul>
<p><b>8. Historic environment</b> - Conserve and enhance the historic environment, heritage assets and their settings.</p>	<ul style="list-style-type: none"> <li>- Conserve and enhance designated heritage features.</li> <li>- Maintain and enhance the character and distinctiveness of Conservation Areas and settlements.</li> <li>- Promote high-quality design.</li> <li>- Promote heritage based sustainable tourism.</li> <li>- Provide for increased access to and enjoyment of the historic environment.</li> <li>- Provide for increased access and enjoyment of the historic environment.</li> <li>- Promote heritage-led regeneration.</li> <li>- Increase the social benefit derived from the historic environment.</li> </ul>	<ul style="list-style-type: none"> <li>- Planning permissions granted/refused that affect the setting of a designated heritage asset.</li> <li>- Loss or damage of heritage assets.</li> <li>- Number of heritage assets on the Heritage at Risk register.</li> <li>- Number of locally listed heritage assets at risk.</li> <li>- % change in number of visits to historic sites.</li> <li>- Number of planning applications where archaeological investigations were required prior to planning approval.</li> </ul>

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>9. Population –</b> Reduce poverty and deprivation</p>	<ul style="list-style-type: none"> <li>- Increase community engagement and decision-making.</li> <li>- Increase racial and gender equality and community cohesion.</li> <li>- Reduce poverty and social exclusion.</li> <li>- Reduce crime and the fear of crime.</li> </ul>	<ul style="list-style-type: none"> <li>- Local and sub-regional measurements of deprivation.</li> <li>- Life expectancy between wards.</li> <li>- Crime rates.</li> <li>- Self-reported measure of people’s feeling of safety.</li> <li>- Rates of participation of democratic processes.</li> <li>- Inequality measures, such as education levels and wages.</li> <li>- % BME working age people in employment.</li> </ul>
<p><b>10. Population -</b> Promote healthy and active lifestyles in the Borough</p>	<ul style="list-style-type: none"> <li>- Increase access to high quality healthcare facilities.</li> <li>- Promote active and healthy lifestyles.</li> <li>- Promote recreational and leisure opportunities and access to open space.</li> <li>- Increase regular participation in physical activities and sport.</li> </ul>	<ul style="list-style-type: none"> <li>- Life expectancy rates.</li> <li>- Death rates for cancer, circulatory disease, accidents and suicides.</li> <li>- All-age all-cause mortality rate.</li> <li>- Obesity levels.</li> <li>- Number of people exercising regularly.</li> <li>- Self-reported measure of people’s overall health and wellbeing.</li> </ul>
<p><b>11. Population -</b> Improve access to affordable housing and ensure an appropriate mix of dwelling sizes, types and tenures within local communities.</p>	<ul style="list-style-type: none"> <li>- Provide an adequate supply of housing.</li> <li>- Reduce homelessness.</li> <li>- Make best use of existing housing stock.</li> <li>- Provide quality and flexible homes that meet the needs of the community</li> </ul>	<ul style="list-style-type: none"> <li>- Number of housing completions and projected completions.</li> <li>- Housing quality in new housing development based on Building for Life Assessments.</li> <li>- Net additional Gypsy and Traveller pitches.</li> <li>- Number of households living in temporary accommodation.</li> <li>- Homelessness rates.</li> </ul>

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>12. Local economy</b> - Promote a sustainable and diversified economy, and improve skills and employability</p>	<ul style="list-style-type: none"> <li>- Promote retention of existing jobs and create new employment opportunities.</li> <li>- Increase diversity in the range of job opportunities.</li> <li>- Ensure an adequate supply of a range of sites in terms of types and quality for employment uses.</li> <li>- Improve access to opportunities for education, learning and skills training for all sectors of the community.</li> <li>- Support the creation of flexible jobs to meet the changing needs of the population.</li> </ul>	<ul style="list-style-type: none"> <li>- Amount of completed retail, office and leisure development.</li> <li>- New business registration rates.</li> <li>- Employment rates.</li> <li>- Proportion of economically active people unemployed.</li> <li>- Average earnings.</li> <li>- Percentage of population that have attained a qualification of NVQ2 and above.</li> <li>- Proportion of 18-24 year olds enrolled in training, full time education or employment.</li> <li>- % of 16 year olds achieving 5+ GCSEs Grade A*-C.</li> <li>- No. of residents attending university.</li> <li>- Business surveys of staff/skills shortages.</li> </ul>
<p><b>13. Material assets</b> - Increase access to a wide range of services and facilities.</p>	<ul style="list-style-type: none"> <li>- Improve availability and accessibility of key local facilities, including healthcare, education, retail and leisure.</li> <li>- Promote the development of a range of high quality, accessible community, cultural and leisure facilities.</li> <li>- Maintain and enhance rural facilities.</li> <li>- Increase voluntary and community infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>- Number of people with adequate access to key services (e.g. hospitals, health centres, residential homes, schools).</li> <li>- Availability and accessibility of a range of community, cultural and leisure facilities.</li> <li>- Access to services and facilities by public transport, walking and cycling.</li> </ul>

SA objectives	Appraisal Criteria	Potential Indicators
<p><b>14. Mineral resources</b> - Ensure sustainable management of the Borough's mineral resources.</p>	<ul style="list-style-type: none"> <li>- Increase the retention of mineral workings for biodiversity, landscape and the general public.</li> <li>- Reduce the use of minerals and increase the reuse of material on and off site.</li> <li>- Safeguard the existing development from the environmental effects of mineral workings.</li> </ul>	<ul style="list-style-type: none"> <li>- Total aggregates extracted from within the Borough.</li> <li>- Amount of mineral extraction areas designated for environmental protection.</li> <li>- Total aggregates used within the Borough.</li> <li>- Environmental incidents from mineral extraction facilities.</li> </ul>

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# **Introduction to the alternatives**

**03**

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## 3 INTRODUCTION TO THE ALTERNATIVES

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### 3.1 Identifying and appraising alternatives

3.1.1 A critical stage of the SA process is the consideration of alternative approaches and options for delivering the objectives of the Plan.

3.1.2 Appraisal of reasonable alternatives allows for a fair comparison of different strategies, policy approaches and site options to be undertaken. The findings of appraisal can then help to inform decisions about the Plan approach.

3.1.3 An important aspect of an effective SA is to help stakeholders (i.e. businesses, communities, developers, statutory bodies) understand the benefits, constraints and opportunities associated with different strategies, policy approaches and site options.

3.1.4 The Regulations<sup>1</sup> are not prescriptive in how this should be undertaken, stating only that the SA Report should present an appraisal of the plan and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme.

3.1.5 The key issues identified by the Council at this stage of Plan making relate to the following plan elements.

- Housing growth and distribution
- Broad approaches to employment land delivery
- Site specific options

3.1.6 The following chapters deal with the alternative approaches that have been identified and assessed for each of the Plan elements listed above. Each of these chapters is structured as follows:

- **Background** - *This introduces the issues and why it is considered important to explore alternatives for this aspect of the Plan.*
- **Part 1: The reasons for selecting the options** - *This describes the alternatives that have been considered and which are considered to be reasonable.*
- **Part 2: Appraisal of options** – *This summarises the appraisal findings for each of the reasonable alternatives.*
- **Part 3: Rationale for the preferred approach** - *This sets out the next stages of the plan-making process, how the SA will be taken into account in the decision making process and what further SA tasks may need to be undertaken.*

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<sup>1</sup> Environmental Assessment of Plans and Programmes Regulations 2004



# **Alternatives appraisal: Housing**

**04**

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## **4 ALTERNATIVES APPRAISAL: HOUSING GROWTH**

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### **4.1 Background**

- 4.1.1 Setting the strategy for the amount and distribution of housing and employment development is a crucial element of the plan-making process.
- 4.1.2 A robust approach to plan-making should involve testing different approaches as to how the plan objectives can be achieved. Therefore, there is a need to examine the evidence behind housing and employment needs and understand the implications of meeting such needs in a range of different (but reasonable) ways.
- 4.1.3 The spatial strategy will draw together conclusions from different elements of the plan-making process (including SA findings) that relate to housing and employment (as well as other important factors).
- 4.1.4 An initial set of reasonable alternative were consulted upon from April to June 2018; supported by an interim sustainability appraisal report -this consultation was called "*Towards a Local Plan for Charnwood*."
- 4.1.5 Following on from this consultation, a refined list of reasonable alternatives was identified in September 2018 for the purposes of testing through evidence and through sustainability appraisal. This section sets out the process of identifying the alternatives, a summary of the findings and the rationale for selecting or discounting the different alternatives.

### **4.2 Part 1: The reasons for selecting the options**

- 4.2.1 Before commencing the alternatives development process, it was necessary to establish some key issues and principles that would shape the development strategy for Charnwood (listed below). This is important, as reasonable alternatives (options) for housing growth must be deliverable and contribute to the achievement of the Plan vision and objectives.
- Government Policy.
  - The emerging Strategic Growth Plan for Leicester and Leicestershire – Which promotes Charnwood Borough Council to meet its housing needs through managed growth on the edge of city, Loughborough and a 'northern gateway' strategic focus (though this would be a longer term strategy).
  - The Charnwood Borough Council Cabinet vision for Charnwood.
  - Evidence about the services and facilities in settlements in Charnwood and the role and functions they perform
  - The need for homes and how this compares to the availability of land and opportunities for new supply.
  - The economy and the need for new employment land, the future prospects for existing employment sites, opportunities for new employment provision.

- 4.2.2 Taking these factors into account, an important starting point was to look at the level of growth that should be delivered and the places that this could reasonably be delivered.
- 4.2.3 It is considered less meaningful to test growth scenarios without an understanding of where this growth would be located. Therefore, the options have been identified by a consideration of both growth and distribution approaches at the same time. Each element is discussed below individually, before drawing both together to identify the options that have been tested through the SA process.

#### Housing Need

- 4.2.4 The starting point for identifying growth options for the *Towards a Local Plan for Charnwood in April 2018* was the objectively assessed housing need identified in the Housing and Employment Development Needs Assessment (HEDNA). This is a figure of 24,850 dwellings for Charnwood Borough. Taking away existing commitments, completions and already allocated sites that are expected to be delivered in the plan period (16,679), this leaves a 'to be found' figure of 8,100 new homes over the plan period. The first growth option is therefore to plan to meet this level of need through the allocation of land to deliver 8,100 homes.
- 4.2.5 It is considered unreasonable to provide for housing land below this level as there is no evidence to suggest that there are substantial constraints to the delivery of the objectively assessed needs.
- 4.2.6 A second growth option has been identified that would provide land for the delivery of 15,700 homes. This higher provision scenario is informed by Council commissioned evidence about delivery factors, which suggests that a greater number of development opportunities could provide a high degree of flexibility to maximize the likelihood of meeting objectively assessed housing needs.
- 4.2.7 This reflects the need for flexibility in the instance that allocated or committed sites may not come forward as anticipated, as well as accounting for lead-in times and build-out rates. This is a reasonable alternative as it helps to understand the effects of allocating substantially more land to maximize the likelihood of meeting housing needs within the plan period.
- 4.2.8 It would be possible to test a very large number of additional growth options lying between these two housing allocation options (8,100 / 15,700). However, at this stage it was considered proportionate and appropriate to compare just these two distinct levels of housing delivery. This allowed for a good understanding of the implications of land release. The growth options are sufficiently distinct to allow meaningful conclusions to be reached and to inform debate about the relative merits of such approaches.

#### Housing distribution

- 4.2.9 The options development process involved two key steps. It is useful to describe both of these to provide the context within which the reasonable alternatives have been established.
- 4.2.10 Initial work to identify strategic options for the distribution of new housing development had to take account of the land known to be available through the Charnwood Strategic Housing Land Availability Assessment.

- 4.2.11 The options have been presented according to the amount of growth being allocated to different tiers in the Charnwood settlement hierarchy. At the top of the hierarchy are those settlements/ sites which adjoin the Leicester Urban area. Loughborough and Shepshed are in the second tier of the settlement hierarchy.
- 4.2.12 The middle tiers of the hierarchy are Service Centres and 'Other Settlements' (in turn) and at the lowest tier of the hierarchy are small villages and hamlets.
- 4.2.13 A large number of options could be explored, but there is a need to ensure that options are meaningful, discrete and deliverable. It is also necessary to limit the number of alternatives that are tested and presented for consultation to aid in the decision-making process. Too many options can make it difficult for stakeholders to engage.
- 4.2.14 With these factors in mind, the following approaches to distribution were identified as reasonable by the Council.

**Table 4.1: Approaches to the distribution of housing**

Distribution Strategy	Description / Assumptions
Leicester & Loughborough focus	Development focussed on key urban areas firstly at the edge of Leicester Urban Area (edge of Leicester, Birstall, Thurmaston and Syston) and then the Loughborough Urban Area (Loughborough and Shepshed). Development capacity maximised at higher level in settlement hierarchy before capacity taken at next settlement tier.
Leicester & Loughborough + Service Centres	Development focused on Leicester, then Loughborough, with remainder of development focussed on Service Centres. Development capacity maximised at Leicester in settlement hierarchy before capacity taken at next settlement tier. Remainder of housing distributed between Loughborough/ Shepshed and Service Centres to reflect hierarchy.
Settlement Hierarchy distribution	Development focused on Leicester, then Loughborough, with remainder of development focussed on Service Centres. Development capacity maximised at Leicester in settlement hierarchy before capacity taken at next settlement tier. Remainder of housing distributed between Loughborough/ Shepshed, Service Centres and Other Settlements to reflect hierarchy.
Proportionate Distribution	Housing distributed across settlement hierarchy in proportion to the population of each settlement hierarchy tier.
Leicester & Loughborough + New Settlements	Development at Leicester and New Settlements maximised, remainder focussed at Loughborough.
Leicester & Loughborough + Service Centres + New Settlements	Development at Leicester and new settlements maximised, with remainder of development distributed between Loughborough and Service Centres to reflect hierarchy.

Large Standalone new settlement	A development strategy based around new settlements is brought out as an alternative to be considered, as this strategy has been favoured by some respondents to consultations on the Charnwood Local Plan Core Strategy. However, a reliance on this approach alone is considered to be an unreasonable approach to the delivery of housing within the plan period.
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4.2.15 Other broad approaches to distribution were identified but subsequently dismissed as unreasonable. The outline reasons for this are presented below:

*Focus on growth at smaller settlements:* This approach was dismissed as unreasonable as it would not reflect the settlement hierarchy and would not meet the Plan Objectives that seek to achieve growth in key locations.

*Focus on a large standalone settlement:* Responses to consultations on the Charnwood Local Plan Core Strategy suggested a new standalone settlement as a means of meeting the borough's housing need. Evidence suggests however that a new settlement option is unlikely to deliver housing before 2030 and therefore unlikely to meet housing need in the period covered by the new local plan; the option therefore may not be considered to be a reasonable alternative.

Given the long lead in times for a standalone new settlement the option may only represent a longer term strategy for Charnwood's development needs beyond 2036. If a new settlement is considered to be an appropriate strategy for meeting the borough's development needs in the longer term it would be addressed in future plans and there would need to be a long lead-in time. Despite being considered unreasonable, the option for a standalone new settlement was included within the sustainability appraisal to recognise previous consultation responses to the Charnwood Local Plan Core Strategy, and was intended to inform public debate on how Charnwood meets its development needs both up to 2036 and beyond.

#### Combining growth and distribution alternatives

4.2.16 In order to give the appraisal context and meaning, the two growth scenarios were combined with each of the six high-level spatial options. This is to enable a broad understanding of effects to be identified for each of the spatial options, and how these effects would differ should the level of growth be higher or lower.

4.2.17 This combination resulted in **ten discrete options** that were tested in the SA (see table 4.2 below). Two of the distribution alternatives (B1 and B5) were not reasonable at the higher level of growth, as there is insufficient land capacity identified for these to be delivered.

4.2.18 A further scenario was identified to explore the potential for a large standalone settlement. This is not related to either Scenario A or B with regards to growth or distribution, and therefore, is considered as a distinct scenario.

**Table 4.2:** Initial high-level options for housing growth

Distribution Strategy	Housing land delivery		
	Scenario A (8100)	Scenario B (15,700)	Scenario C (8,810-10,810)
Leicester & Loughborough focus	Option A1	/	/
Leicester & Loughborough + Service Centres	Option A2	Option B2	/
Settlement Hierarchy distribution	Option A3	Option B4	/
Proportionate distribution by settlement size	Option A4	Option B4	/
Leicester & Loughborough + New Settlements	Option A5	/	/
Leicester & Loughborough + Service Centres + New Settlements	Option A6	Option B6	/
Standalone new settlement	/	/	Option C1

- 4.2.19 For each of the options in table 4.2 above, an indicative amount of growth was apportioned to different levels of the current settlement hierarchy for Charnwood to enable an appraisal of potential effects at the settlement level as well as for the borough as a whole.
- 4.2.20 These housing figures are different depending upon the focus of each distribution strategy; but also take account of the availability of deliverable land. For the options that involve new settlements, assumptions were made about the broad locations that these could be located at.
- 4.2.21 **Appendix A** sets out the distribution for each high-level option in *Towards a Local Plan for Charnwood in April 2018*, and includes a map for each approach to outline the broad locations for growth. At this stage, specific sites for allocation were not identified.

#### Refining the spatial options

- 4.2.22 From September 2018, the Council considered a range of factors to help refine the initial high-level options into a discrete set of more locationally specific options for modelling and detailed testing (ahead of selecting a preferred strategy).
- 4.2.23 Of critical importance is the need to ensure that options can deliver the key vision and objectives of the Plan (which in turn need to satisfy the tests of soundness set out within the NPPF).
- 4.2.24 With this in mind, the Council considered the performance of the initial high-level options against a range of key factors / pieces of evidence including the SA, deliverability, conformity with the Leicester and Leicestershire Strategic Growth Plan, and the Charnwood Vision.

- 4.2.25 The Council also considered consultation responses, and no further reasonable alternative options for development were proposed to those contained within the 'Towards a Local Plan for Charnwood' consultation document.
- 4.2.26 Taking account of the findings of the assessment, the Council identified three distribution strategies for further transport modelling and appraisal.
- 4.2.27 The four distribution strategies are hybrids, developed from the better performing parts of the initial options identified and assessed.
- 4.2.28 It is acknowledged that the new NPPF states that the Governments Standard Methodology ought to form the basis for calculating objectively assessed housing needs. However, the guidance on its use was not published in its final form at the time that these options for Charnwood were being refined.
- 4.2.29 Using the draft standard methodology identifies a need for 1,045 homes a year between 2016 and 2026 in Charnwood. This is sufficiently similar to the HEDNA recommendations, and given that the guidance could lead to changes in how the standard framework is applied; the Council consider it reasonable to continue to test housing growth at the two scenarios of 8100 and 15,700 homes.
- 4.2.30 Table 4.3 sets out the four different approaches to distribution, which have been tested against the two housing growth scenarios. This gives a total of seven refined options that have been appraised through the SA.

**Table 4.3:** Refined options for housing growth

Distribution Strategy	Housing land delivery	
	Scenario A (8100)	Scenario B (15,700)
Urban Concentration A	Option 1	Option 5
Urban Concentration B	Option 2	
Dispersed Settlement Hierarchy Distribution	Option 3	Option 6
Urban Concentration and New settlement	Option 4	Option 7

- 4.2.31 These options are broken down in detail in Appendix C, setting out the broad indication of housing that each settlement could accommodate, taking account of:
- Land availability;
  - The need for a mix of sites;
  - The proposals in the Strategic Growth Plan; *and*
  - Local priorities of protecting important landscapes and settlement identity.
- 4.2.32 Where appropriate, large strategic sites have been identified as key components of growth at certain settlements, allowing for a more locationally specific assessment to be undertaken in the SA.

### 4.3 Part 2: Appraisal of the spatial strategy options

- 4.3.1 Two stages of appraisal have been undertaken to establish the implications of the spatial strategy options. The first tested the initial high level options, as set out in table 4.2. (Appendix B) Then, following a period of options refinement, a second stage of appraisal was undertaken, as set out in table 4.3. and (Appendix D)
- 4.3.2 Following the appraisal of options at these two stages the Council established a **preferred approach** (a hybrid of the refined options). The strategy set out in this preferred option was influenced by the SA findings at previous stages (notably the refined options stage).
- 4.3.3 Further appraisal work was undertaken to demonstrate (on a consistent basis) how the hybrid option compares to the options that have been tested throughout the plan-development process. A summary of the reasons for identifying the hybrid option is set out at paragraphs 4.4.5 to 4.4.12. The full appraisal of the hybrid option can be found in appendix D (alongside the appraisal of refined options).
- 4.3.4 The findings for both appraisal stages are set out within **Appendix B** (high level options) and **Appendix D** (refined options).
- 4.3.5 The appendices set out a detailed appraisal of all the options against each of the SA Objectives. This breaks down the effects at each level of the settlement hierarchy for Charnwood and how this relates to an overall score for the borough as a whole for each sustainability objective.
- 4.3.6 The findings of the detailed appraisals are summarised in this section below for each stage of options testing.

#### High-level options (April 2018): Summary of appraisal findings

##### *Summary of effects for Scenario A (8,100 homes)*

- 4.3.7 There are similarities between how each option performed, which is to be expected given that there are common elements and the level of growth is the same regardless of distribution.
- 4.3.8 For example, each of the options is predicted to have a significant negative effect with regards to the loss of soil, as regardless of distribution it is likely that large amounts of Grade 2 or 3 agricultural land would be lost. Each option is also predicted to have minor negative effects with regards to minerals as there would be potential overlap with Minerals Safeguarded Areas regardless of distribution.
- 4.3.9 Option A1 is not predicted to have any further significant negative effects, though minor negative effects are predicted against all of the environmental factors. However, this option performs most favourably with regards to Climate Change and Deprivation, being the only option at this level of growth to generate significant positive effects for these factors. There would also be significant positive effects on the economy and minor positives for accessibility and health. The positive effects associated with housing are uncertain though.
- 4.3.10 Option A2 performs similarly to option 1 with regards to effects upon the environment, though flood risk is neutral rather than negative. However, whilst positive effects are predicted for social factors such as health, deprivation, housing, economy and accessibility, these are less significant for deprivation compared to Option A1. The

option also performs less well compared to Option 1 with regards to climate change, but the positive effects associated with housing ought to be more certain.

- 4.3.11 Option A3 performs more differently compared to options A1 and A2. This option could generate significant negative effects on landscape, but the negative effects upon air quality and the historic environment ought to be lower. Similar to Options A1 and A2, this approach would also generate significant positive effects for the economy, and minor positives for housing, accessibility and deprivation. However, the effects for health and wellbeing would only be neutral, and no positive effects would be generated with regards to climate change.
- 4.3.12 Unlike options A1-A3, Option A4 does not generate any significant positive effects and performs the worst of any option in terms of tackling deprivation. It also performs the poorest with regards to climate change as it could generate minor negative effects due to the increased likelihood of car travel. With regards to environmental factors, this option performs better in some respects compared to options A1-A3, as a dispersed approach ought to better avoid potential effects on biodiversity and air quality. However, this option would generate a significant negative effect for landscape.
- 4.3.13 Options A5 and A6 perform similarly, and somewhat different to the other four options. These two options perform slightly better with regards to environmental factors, with both being the only options to have neutral effects on water quality, and flood risk. These two options would also only have uncertain negative effects for biodiversity, climate change and the historic environment. Whilst these two options would have broadly positive effects upon socio-economic factors, these would only be minor in nature.

#### *Summary of effects for Scenario B (15,700 homes)*

- 4.3.14 As a general point, each of the options at the higher level of housing provision are predicted to perform more positively with regards to socio-economic factors, and more negatively with regards to environmental factors. In particular, each option would generate significant positive effects in terms of housing provision and economic growth. This is due to increased flexibility in housing provision, and the corresponding increase in homes likely to be available to support economic growth and to provide investment in infrastructure improvements. Conversely, all four of these options are likely to perform worse than the six options under Scenario 1 with regards to environmental protection. In particular, the effects upon air quality, the historic environment and biodiversity are predicted to be significantly negative for options B2, B3, B4 and B6. At the lower scale of growth, the effects upon these factors would only be minor for all of the options.
- 4.3.15 In terms of comparison between these options, there are many similarities given that the scale of growth necessitates the release of a greater amount of land in Loughborough and the Service Centres in particular.
- 4.3.16 Options B2 and B3 perform the same with the exception that Option B2 could have significant negative effects upon flood risk compared to a minor effect for Option B3.
- 4.3.17 Option B4 performs similarly to Options B2 and B3 with regards to environmental factors, but due to the dispersed nature of some of the growth, a negative effect is predicted for Climate Change rather than positives (as per Options B2 and B3).

- 4.3.18 The magnitude of the positive effects would also be lower compared to Options B2 and B3, with only minor positive effects predicted in terms of deprivation, and greater uncertainty about positive effects on health and wellbeing occurring overall.
- 4.3.19 Despite significant positive effects upon the economy, this approach is also the only option under Scenario 2 which is predicted to generate minor negative effects due to an increased amount of growth being located in smaller settlements.
- 4.3.20 At this scale of growth, Option B6 performs most positively with regards to socio-economic factors, with significant positive effects identified for deprivation, housing, economy, accessibility and health and wellbeing (the only option to generate significant effects on this factor). This option also performs similarly to options B2 and B3 with regards to negative effects upon the environment. However, the effects in terms of climate change are potentially negative rather than positive (as per options B2 and B3).

#### *Summary of effects for Scenario C (Standalone new settlement)*

- 4.3.21 The effects associated with Option C1 are difficult to determine accurately as the location of a new settlement has not been identified. However, a broad assessment of potential opportunity areas has been undertaken to understand what the effects might be. Given that the scale of growth is closer to Scenario A than to Scenario B, the effects are more comparable to the options in this scenario. However, there are differences across the range of sustainability objectives discussed below.
- 4.3.22 The primary difference between C1 and all of the other options is the potential for negative effects with regards to housing. This relates to an overreliance on a new settlement, which could mean under delivery in housing needs in the short term and would also provide less choice and flexibility across the borough. Option C1 is also the least likely to help address deprivation as a new settlement would be totally removed from existing communities. Similarly, the effects in terms of transport would be less positive compared to the options that involve development at existing settlements that have established services and transport links. It is unclear the extent to which transport improvements would be secured through a large new settlement, but it is anticipated that car use would be necessary.
- 4.3.23 With regards to environmental factors, a new settlement is likely to perform relatively well, with the broad opportunity areas not being particularly sensitive for biodiversity, water quality, flood risk and the historic environment. However, landscape effects would be anticipated to be significant in that particular location. A concentration of growth could also affect air quality depending upon where the settlement was located and the transport measures secured.
- 4.3.24 With regards to land usage, this option would result in a significant loss of agricultural land (similar to all other options) but would be less likely to have negative effects with regards to minerals safeguarding.

#### *Comparison of growth scenarios and options*

- 4.3.25 There are clear differences between Scenarios A and B with regards to the generation of significant positive and negative effects. Whilst scenario A options are predicted to have fewer significant positive effects, the growth would be accommodated without generating significant negative effects. Conversely, Scenario B options would generate more significant positive effects, but at the expense of several environmental factors. The difference in the amount of housing between the two options is fairly large, and therefore, a level of growth in between the two options

could possibly provide a better balance between positive social-economic effects and negative environmental effects.

- 4.3.26 The effects related to Option C1 are more in-line with those for the options under Scenario A, which is to be expected given that the scale of growth is similar. However, the spatial approach results in some notable differences.
- 4.3.27 With regards to distribution, the effects at a higher scale of growth are more similar for each of the options.
- 4.3.28 This is due to the necessity to release similarly large amounts of land at Loughborough/Shepshed and the Service Centres, whilst delivering the same amount of growth at the PUA.
- 4.3.29 At the lower scale of growth, the differences between the options are greater.
- 4.3.30 Option A4 is predicted to have the most negative effects, of the lower growth scenarios. and is also unlikely to generate significant positive effects. Consequently, this option is considered to perform the poorest under scenario A.
- 4.3.31 Options A1 and A2 perform the best with regards to social-economic factors as they generate mostly positive (and some significant) effects. However, these two options are predicted to have slightly greater negative effects on environmental factors overall when compared to Options A5 and A6.
- 4.3.32 Options A5 and A6 have the fewest negative effects overall across the range of environmental factors, but would only generate minor positive effects on socio-economic factors and perform poorer with regards to climate change.
- 4.3.33 Option C1 performs relatively well with regards to environmental factors compared to the options under Scenario A. However, the positive effects of housing, economy, accessibility and deprivation would be of a lesser magnitude. This is due to the spread of benefits across the borough being limited and the likelihood that housing delivery and economic activity in the short to medium term would likely be lower. The assessment of Option C1 does demonstrate that a new settlement could be a positive longer term strategy, but evidence suggests that a new settlement is very unlikely to meet housing need in the plan period and other spatial strategies would be more appropriate up to 2036.

#### Refined options – Summary of appraisal findings

##### *Summary and comparison of options*

- 4.3.34 Refined options are set out in table 4.3. Option 1 and 2 perform similar, but 2 is slightly less likely to cause negative effects regarding flood risk, air quality and the historic environment. Option 2 could potentially be more positive from a housing perspective and in terms of securing accessibility improvements. The differences are fairly small, but of the two urban concentration approaches, Option 2 performs marginally better.
- 4.3.35 Options 3 and 4 are both less negative with regards to landscape and biodiversity (compared to Options 1 and 2). However, they are both less positive with regards to socio-economic factors (economy, healthy lifestyles, deprivation) and Option 4 in particular could generate significant negative effects with regards to heritage and landscape.

- 4.3.36 With regards to housing delivery (which is a critical plan objective), Option 3 performs most positively under Scenario A. However this option is weaker than the urban concentration options (1 and 2) in terms of economy and employment, healthy lifestyles, deprivation, accessibility and climate change.
- 4.3.37 Options 5, 6 and 7 each perform worse from an environmental perspective, which is to be expected given the higher scale of growth. In particular, significant negative effects could be generated with regards to landscape, biodiversity, air quality and the historic environment (regardless of the distribution options). The positive effects in terms of housing, regeneration and the economy are more prominent for each option as well. but the increased growth also raises the possibility of negative implications for certain communities.
- 4.3.38 In this regard, Option 6 stands out due to the fact it generates potentially significant negative effects in relation to health and recreation (due to potential negative effects on the Charnwood Forest in particular). There is less to differentiate the higher growth options from one another as all three involve substantial growth in Loughborough, the Service Centres, Shepshed and the LUA.
- 4.3.39 The choice of site locations, coupled with plan policies will help to determine these effects in greater detail, whichever growth option is pursued.

#### *Summary of the Hybrid option*

- 4.3.40 The hybrid option was developed by the Council taking into account the strengths and weaknesses of the refined spatial options. The Council also considered alignment with the Leicester and Leicestershire Strategic Growth Plan, local priorities and vision, evidence and the effect on infrastructure. This option is set out below:

*Table 4.4: Range of housing numbers tested*

Settlement	Range Tested	Proposed Development Strategy
Leicester Urban Edge	1,000 - 3,000	2,000
Loughborough	800 - 4,000	2,000
Shepshed	500 - 2,200	2,000
Service Centres	600 - 2,100	1,000
Other Settlements	0 -1,400	800
Total		7,800

- 4.3.41 A key aim was to avoid significant negative effects, which the hybrid option achieves with the exception of soil resources. All of the options are predicted to have significant negative effects upon soil, and this is considered unavoidable given the amount of greenfield land that would be lost. However, the site selection process could help to minimise the effects by avoiding Grade 2 and 3a land if possible.
- 4.3.42 From a wider environmental perspective, the Hybrid Option performs better than any of the options. The distribution of growth ought to allow for negative effects to be avoided in most settlements, or the potential for mitigation and enhancement to be secured with regards to biodiversity, landscape character and the historic environment. With positively prepared policies to support the strategy, positive effects may even be achieved against these factors.

4.3.43 The approach will allow for sites to be selected that are not at major risk of flooding, keeping in-line with the sequential approach.

4.3.44 The picture with regards to socio-economic effects is positive. Whilst the Hybrid Option does not perform as well as the urban concentration options with regards to deprivation and accessibility, the effects are still positive for these factors. Furthermore, the Hybrid Option benefits from the pronounced positive effects upon health and housing, which are associated with a more dispersed approach to development.

#### 4.4 Rationale for selecting the preferred approach

4.4.1 The Council has prepared a detailed paper that sets out the rationale for the selection of a preferred development strategy. This provides a commentary on the key steps that were undertaken to support the identification of a preferred approach.

4.4.2 As required by the SEA Legislation, 'outline reasons' are provided below as to why the preferred approach was selected and the reasonable alternative (options) have been discounted.

4.4.3 The Council has taken an iterative approach to SA and has made it clear that the SA is a critical piece of evidence in the identification of a preferred development strategy. However, other factors have played an important part, and have formed a 'framework' against which the Council has considered each of the options, including the Strategic Growth Plan, local priorities and vision, detailed evidence base studies, and infrastructure.

4.4.4 At the initial high level options assessment stage, the Council took the decision to discount certain options. Those options that were taken forward remained the same in principle, but further detail was added to refine the distribution of growth. Table 4.5 below illustrates how the options have progressed through the plan making and SA process.

*Table 4.5: Progression of options*

Towards a Local Plan for Charnwood (April 2018)	Refined Options for Testing (Aug/Sept 18)
Option 1: Leicester & Loughborough Focus	<b>Not taken forward.</b> Though this option performed well in the SA, it performed less well in terms of delivery. However, the principles of this approach are reflected in a refined 'urban concentration option', which is a hybrid of options 1 and 2.
Option 2. Leicester & Loughborough + Service Centres	Option 1: Urban Concentration A (Low Growth Scenario) Option 2: Urban Concentration B (Low Growth Scenario) Option 5: Urban Concentration (High Growth Scenario)

Towards a Local Plan for Charnwood (April 2018)	Refined Options for Testing (Aug/Sept 18)
Option 3. Settlement Hierarchy Distribution	Option 3: Dispersed Settlement Hierarchy Distribution (Low Growth Scenario)  Option 6: Dispersed Settlement Hierarchy Distribution (High Growth Scenario)
Option 4. Proportionate Distribution	<b>Not taken forward.</b> This option performed least well against the assessment framework.
Option 5. Leicester & Loughborough + New Settlement	<b>Not taken forward.</b> This option is less deliverable than the other options as it focusses a significant amount of development on a few large sites and a few locations, with no development in very high market areas.
Option 6. Leicester & Loughborough + Service Centres + New Settlement	Option 4: Urban Concentration and New Settlement (Low Growth Scenario)  Option 7: Urban Concentration and New Settlement (High Growth Scenario)
Option 7. Large Standalone New Settlement	<b>Not taken forward.</b> The option is highly unlikely to make a significant contribution to housing supply within the plan period to 2036.

#### 4.5 Rationale for Hybrid Approach

4.5.1 Whilst the decisions relating to the preferred development strategy are based primarily on the assessment of the refined options, clearly the initial high level assessments were important as they helped to focus the Councils approach. However, the rationale presented below is discussed in the context of the refined options.

4.5.2 With regards to housing growth, the Council has concluded (on the basis of the evidence) that the lower growth scenario is preferable, but that a margin of flexibility should be built in to the supply. Several factors support this approach (in favour of a lower growth scenario).

- The SA and supporting evidence base identifies that a low growth scenario would cause less environmental harm, whilst being able to deliver required housing and economic growth in a strong market.
- The SA and supporting evidence base identifies that a higher growth scenario could cause significant environmental effects and transport impacts will require significant mitigation, may not be mitigated to a reasonable level and could prove difficult to deliver in the plan period.
- infrastructure requirements to support a high growth scenario may delay the delivery of the homes.

- the potential for scale and location of growth to conflict with the Strategic Growth Plan. A46 Western Bypass improvements conflict with SGP's A46 expressway east of Leicester
  - Whilst the higher growth level provides greater flexibility in housing supply, the Council considers that flexibility can be provided at a lower scale of growth.
  - The lower growth scenario reflects the scale of growth proposed within the Strategic Growth Plan for Charnwood. At a higher scale of growth, there is potential conflict in this regard.
- 4.5.3 For the distribution of housing, the Council recognised that there were pros and cons for each of the options (which focus growth more or less to particular settlements). It was considered sensible to therefore seek to achieve beneficial effects, whilst seeking to avoid significant negative effects.
- 4.5.4 At the edge of Leicester, this means promoting growth, but taking account of landscape constraints, so not maximizing development on available land in this location.
- 4.5.5 With regards to Loughborough and Shepshed, managed growth is proposed as this reflects the Strategic Growth Plan strategy and takes account of landscape constraints and potential impacts on infrastructure (particularly transport). This managed growth avoids the potential significant negative effects that could occur for the urban concentration options (i.e. Options 1 and 2), but still generates positive effects when compared to the options that involve low levels of growth in Loughborough and Shepshed.
- 4.5.6 The delivery evidence supports a range of sites in terms of the location, size and type of sites and recognises high market values throughout the settlement hierarchy that can support delivery through a more dispersed strategy. Taking account of the potential for environmental impacts, including issues around settlement identity, and the degree of fit with the Strategic Growth Plan and Council vision, a pure dispersed strategy (Options 3 and 4) is not considered to be appropriate. However, there is potential for some limited growth of around 1,000 homes across the six Service Centres and 800 homes across the fourteen Other Settlements.
- 4.5.7 This amount is considered appropriate to support a deliverable strategy and fits well with the requirements in the Framework and Neighbourhood Plan Regulations.
- 4.5.8 Taken together the *hybrid approach* locates growth in locations which fit well with the Strategic Growth Plan, reflect the vision and take account of the positive and negative impacts of growth.



# **Alternatives appraisal: Employment**

**05**

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## **5 ALTERNATIVES APPRAISAL: EMPLOYMENT**

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### **5.1 Background**

- 5.1.1 In order to contribute to the achievement of economic growth aspirations, it is important that the Local Plan identifies the need for employment land and an appropriate distribution strategy for meeting such needs.
- 5.1.2 It is crucial that housing and employment needs are well balanced, and for the plan to promote a strategy that supports good accessibility to job opportunities for communities.
- 5.1.3 This section discusses how the Council has considered the evidence, and explored potential alternatives relating to developing Charnwood's strategy for employment.

### **5.2 Part 1: The reasons for selecting the alternatives**

- 5.2.1 The options for employment land provision have been informed primarily by the conclusions of the Charnwood Employment Land Review March 2018 and by the Leicester and Leicestershire Housing and Economic Development Needs Assessment 2017.
- 5.2.2 The Employment Land Review shows that there is sufficient land with planning permission or committed through the Core Strategy to meet the overall quantitative need for employment land. This evidence does however suggest that there are qualitative issues to consider such as the location and type of employment land.
- 5.2.3 Options for employment were considered reasonable if:
- they were consistent with the quantity of employment land recommended through Leicester and Leicestershire Housing and Economic Development Needs Assessment 2017 and / or
  - a qualitative demand was identified through the Charnwood Employment Land Review 2018
- 5.2.4 In considering these factors, only three options were identified as reasonable.
- 1 Rely on existing employment allocations identified in the Core Strategy and 2004 Borough of Charnwood Local Plan.
  - 2 Identify new employment land to facilitate regeneration and release poorer quality employment sites for alternative uses.
  - 3 Identify new employment land to respond to demand for large warehousing.
- 5.2.5 Given the evidence about Charnwood's need and supply for new employment land, options 1 and 2 do not propose any net additional employment land.
- 5.2.6 Option 1 represents a 'business as usual' strategy relying on existing Charnwood Local Plan Core Strategy and the Borough of Charnwood Local Plan allocations (in addition to committed development).

- 5.2.7 Option 2 would identify 10ha of new employment land in order to release poorer quality employment sites for alternative uses.
- 5.2.8 Employment evidence indicates that there are a number of sites which are in employment use in Thurmaston which are well occupied and functional but have a poor relationship with surrounding uses and in some cases are constrained by poor access. The Employment Land Review identifies a site at Earls Way / Church Hill Road as a key example of such replacement employment land. However, evidence suggests identifying around 10ha of new employment land north of the Leicester in the new local plan to enable the release of these existing alternative uses such as housing. This option would not involve any net additional land being identified though.
- 5.2.9 Option 3 would involve identifying 10ha of new employment land to respond to demand for large warehousing. The Employment Land Review indicates that the Council should consider whether it is appropriate to identify 10ha of land for large warehousing. The distribution of large warehousing was not provided through the Leicester and Leicestershire Housing and Economic Needs Assessment. The distribution of warehousing will require further discussions with partners under the duty to cooperate. The Employment Land Review indicates that this land would need to be delivered in a single location with excellent access to the strategic road network and is therefore likely to be located to the northeast of M1 Junction 23, near to Shepshed.
- 5.2.10 To avoid confusion the appraisal of options focuses on the difference between the options, in particular Options 2 and 3, rather than considering the likely significant effects of all the committed and allocated development proposed under Option 1 and common to Options 2 and 3.

### 5.3 Part 2: Appraisal of the reasonable alternatives

- 5.3.1 **Appendix C** sets out a detailed appraisal of each of the three employment options (i.e. the reasonable alternatives) against each of the SA Objectives. Unlike the housing options appraisal, the appraisal of the employment options is not broken down by the different levels of the settlement hierarchy as there are only small differences in the location of employment opportunities.
- 5.3.2 The findings of the detailed appraisals are summarised in this section below, preceded by a short discussion of the methods used to determine significance.
- Visual representation of the effects
- 5.3.3 **Table 5.1** sets out a visual summary of the effects associated with each of the employment options.
- 5.3.4 The table has been compiled from the detailed assessments within Appendix C. This is supported by a discussion of the key effects and the differences between the options.
- 5.3.5 The significance tables below explain what each score in table 4.4 actually means; and are primarily used to identify whether effects are positive, negative or neutral and most importantly whether these effects could be significant.
- 5.3.6 For each employment option illustrated in table 4.4, one of the following symbols has been allocated for each SA objective to determine the significance of the effects on a borough-wide basis.

Effects Significance	Effects symbol
Significant positive effects	++
Minor positive effects	+
Neutral effects	0
Minor negative effect	-
Significant negative effect	--

Uncertain effects	Effects symbol
Uncertain significant positive effect	++ <sup>?</sup>
Uncertain minor positive effect	+ <sup>?</sup>
Uncertain effects	?
Uncertain minor negative effect	+ <sup>?</sup>
Uncertain significant positive effect	++ <sup>?</sup>

5.3.7 Where there is uncertainty, the nature of such effects has been identified. For example, an uncertain negative effect would be recorded if there is a chance that negative effects could occur but this is dependent upon the precise location of development.

5.3.8 It may still be possible to rule out significant effects though, and so the unknown effect may be recorded as minor or potentially significant.

5.3.9 A fuller explanation of the methods involved in the appraisals is set out in **Appendix C**.

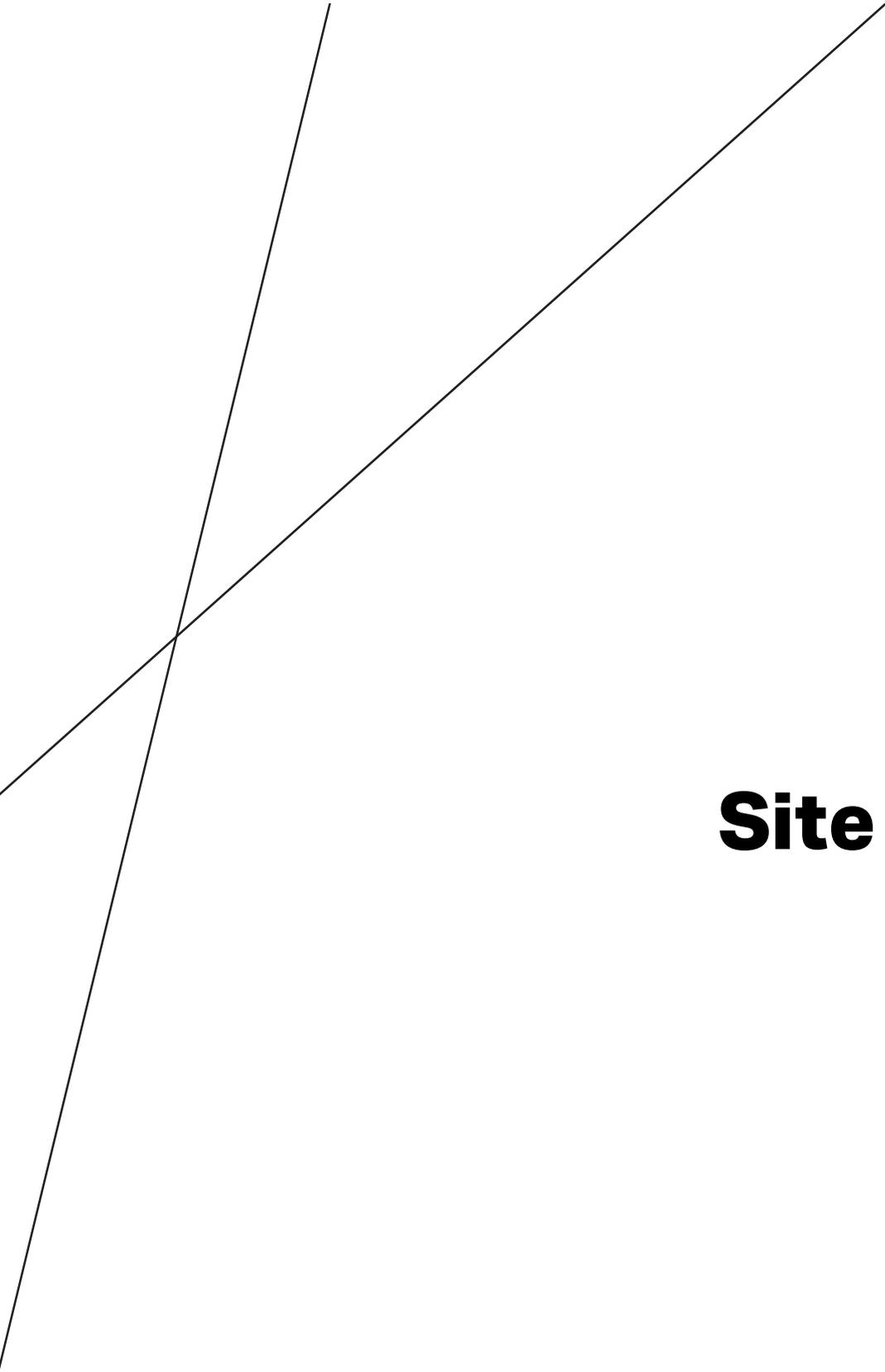
*Table 5.1 Employment options: Summary of appraisal findings*

	Option 1	Option 2	Option 3
Landscape Character	0	0	0
Biodiversity	0	- <sup>?</sup>	-
Water quality	0	?	?
Flood Risk	0	0	0
Soil Resources	0	-	-
Air Quality	0	0 <sup>?</sup>	-
Climate Change	0	0	0
Historic Environment	0	0	0
Deprivation	0	?	+
Healthy Lifestyles	0	0	0
Housing	0	0	0
Local Economy	+	+	++
Accessibility	0	+ <sup>?</sup>	+
Minerals	0	-	0

- 5.3.10 Option 1 is predicted to have mostly neutral effects as it essentially represents a 'business as usual' scenario. However, a minor positive effect is predicted for the economy given that the approach maintains a positive strategy for economic growth for the borough.
- 5.3.11 Given that options 2 and 3 both involve 10ha of higher quality employment land, they are predicted to have a greater range of effects compared to option 1. For option 3, the overall level of provision is also 10ha higher, but the differences between these two options are still minimal.
- 5.3.12 With regards to landscape and heritage both options 2 and 3 are predicted to have neutral effects, as the sensitivity of the land likely to be involved is relatively low. Similarly, the effects in terms of flood risk and climate change would be limited from a borough-wide perspective.
- 5.3.13 Whilst there could be localised effects on biodiversity and air quality, these are not anticipated to be significant given the magnitude of growth involved and the prevailing baseline position.
- 5.3.14 Each option would lead to a further loss of soil resources, which is also a minor negative effect, though the potential for a loss of Grade 2 land exists for Option 2. The potential sterilisation of minerals is also greater for Option 2 (though effects would not be significant).
- 5.3.15 The effects on water quality are also likely to be minor and localised, but could present more of an issue for Option 2, where some potential sites are within close proximity to waterbodies.
- 5.3.16 With regards to positive social-economic effects, each option is likely to contribute positively to tackling deprivation through the provision of jobs in accessible locations. However, only option 3 is predicted to have significant positive effects with regards to the local economy on the basis that the type of employment that would be delivered would meet a specific business demand. The growth is also more likely to be strategic and support a wider population across the district.
- 5.3.17 Option 2 could potentially have benefits for housing as the release of lower quality sites from employment use could possibly mean that housing uses become suitable.
- 5.3.18 Overall, options 2 and 3 perform very similarly across the range of sustainability factors and it is likely that minor negative effects could be mitigated. The key differences between the Options are as follows
- 5.3.19 There is greater uncertainty related to effects for Option 2, given that specific sites have not yet been identified.
- 5.3.20 Only Option 3 generates significant positive effects (in relation to local economy).
- 5.3.21 Option 2 generates minor negative effects in terms of minerals, whereas option 3 does not.
- 5.3.22 Whilst Option 1 would not generate any negative effects, the potential for additional positive effects is limited too.

#### **5.4 Part 3: Rationale for selecting the preferred approach**

- 5.4.1 Option 1 to rely on existing employment allocations identified in the Core Strategy and 2004 Borough of Charnwood Local Plan has been selected. It is not proposed to redevelop Earls Way / Church Hill Road Employment site in Thurmaston for housing.
- 5.4.2 The Council's Employment Land Review 2018 indicates that "Earl's Way is occupied at the moment and before releasing the site the Council would need to ensure that there is new (or alternative) property for tenants to move into". Option 2 would involve some uncertainty in ensuring adequate supply of employment land in the borough, and would also give rise to uncertainty for the occupiers of the industrial estate.
- 5.4.3 The sustainability benefits of redeveloping the Earl's Way employment site are minor and uncertain and would not outweigh the lack of certainty for employment land provision and for the uncertainty for occupiers of existing employment units.
- 5.4.4 Option 3 to develop 10ha of additional land for strategic warehousing has not been pursued. There has been no approach from the market regarding the site and no specific need in this location is evident. Discussions with partners under the Duty to Cooperate has not highlighted that there is a particular need to develop land in Charnwood for this purpose. The site adjacent to the M1 motorway in Shepshed has been identified for housing development.



# **Site Options**

**06**

## 6 SITE OPTIONS

### 6.1 Introduction

6.1.1 The Council considers that there is a need to allocate strategic sites for employment and housing land development in the Plan. This is necessary to ensure that housing and employment needs will be met in the Plan period.

6.1.2 A key element of the spatial strategy is to maximise brownfield redevelopment, but this does not satisfy the overall demand for land identified in the evidence. Therefore, there was a need to consider greenfield sites and whether they can make a contribution to these needs without having unacceptable effects upon the environment and communities.

#### The site options

6.1.3 In order to inform the plan making process a range of site options have been appraised throughout the SA process. These are outlined in table 6.1 below, which also summarises how the site assessments have influenced the decision making process.

*Table 6.1 - Summary of the site assessment process*

Source	Site Data	Input to decision making
Call for sites undertaken by the Council between 14th May and June 7th, 2018	Site proforma prepared for each SHLAA site with data collected linked to overall Sustainability Appraisal Framework objectives.	Helped to understand the implications of each of the strategic spatial options from the 'bottom up'.  Helped to guide the allocation of specific sites with regards to the preferred spatial strategy.

6.1.4 It is important to note that whilst these are individual site options (and have been appraised as such), understanding their characteristics, constraints and opportunities is considered to be helpful in understanding the potential effects of the strategic options. However, it is also important to acknowledge that the issues identified at a site specific level do not necessarily reflect the effects that would occur with strategic growth in a particular location. For example, site specific issues (such as poor access to a school) could possibly be dealt with through the infrastructure improvements that would likely accompany strategic growth (i.e. development at multiple sites).

6.1.5 Each site option has been appraised against the site appraisal framework as set out in **Appendix F of the SA Report**.

6.1.6 The findings of the appraisals are summarised below in a series of matrices. Detailed proformas for each site option, including a map of the site location and boundaries are contained within a separate technical appendix.

## 6.2 Site Selection Process

- 6.2.1 The Council used evidence from each site proforma to follow the approach prescribed in the National Planning Policy Framework (NPPF) that plans should avoid significant adverse impacts and where such impacts are unavoidable, suitable mitigation measures should be proposed. Where this is not possible compensatory measures should be considered (para 32).
- 6.2.2 The Council applied a series of criteria to each site to place sites in one of three scenarios which reflected the above NPPF approach:
- Scenario A included sites which individually avoided significant adverse impacts on key environmental factors such as landscape, heritage, biodiversity and flood risk and also sought to locate development close to services such as a very good public transport service, to schools and to a large food store.
  - Scenario B included sites which had potential significant adverse impacts, but these were capable of mitigation. Sites were capable of mitigation where they were large enough to masterplan sites to locate built form away from sensitive environmental receptors.
  - Scenario C included sites which had a lower accessibility threshold and where it may be possible to mitigate impacts.
- 6.2.3 The criteria that have been applied to sites for the above scenarios are reproduced at Appendix E.
- 6.2.4 The site assessment results were used to identify the optimum sites for each settlement tier in accordance with the preferred overall (hybrid) development strategy:

Settlement	Proposed Development Strategy
Leicester Urban Edge	2,000
Loughborough	2,000
Shepshed	2,000
Service Centres	1,000
Other Settlements	800
Total	7,800

- 6.2.5 For Leicester Urban Edge sites in Scenarios, A, B and C were included. The threshold for access to public transport was expanded to 1400m to take account of the wider access to a full range of services available in urban areas compared to less urban settlements.
- 6.2.6 For Loughborough Urban Area sites in Scenarios A, B and C were included. The Council had carried out additional work to identify sites in urban areas to support an approach of urban intensification, and these sites were included for the Loughborough Urban Area.

- 6.2.7 For Shepshed sites in Scenarios A, B and C were included and the threshold for access to primary schools was expanded to 2200m and a site removed near to proposed waste incinerator because of potential amenity concerns.
- 6.2.8 For Service Centres, a site for 75 homes had already been allocated through the Quorn Neighbourhood Plan and this was included in the list of sites for Service Centres. There was significantly more capacity in Service Centres than needed to meet the overall pattern of development identified in the hybrid development strategy. The Scenario A and B sites were considered, the majority of which are located in Anstey and would result in over 500 homes being allocated to one settlement, (over half that proposed for all Service Centres). Based upon a local priority of avoiding harm to landscape and to settlement separation, all sites in potential Areas of Local Separation or Green Wedge in Service Centres were avoided rather than mitigated. This meant that one of the sites in Anstey for 390 homes was excluded. The approach taken in Service Centres of not focusing development on one settlement or area supported the objective of deliverability. Sites in Service Centres which were otherwise in Scenarios A and B were included. Sites that were categorized within Scenario C in Service Centres were included where were not isolated from the built form of the settlement.
- 6.2.9 For 'Other Settlements' there were no Neighbourhood Plan allocations and no sites categorized in Scenarios A and B due to the threshold set for accessibility to secondary schools and large food store. There were insufficient homes outside of Green Wedge or Areas of Local Separation which had access to hourly public transport to meet the figure identified for Other Settlements in the preferred hybrid strategy. Instead the original approach was taken of identifying sites where mitigation of the impact on these areas is possible through masterplanning. In settlements where this led to a disproportionate number of site or homes, an assessment was undertaken of the comparative impacts of sites in the Areas of Local Separation and this led to a site in Queniborough (Land off Barkby Road) being excluded.. A more even distribution of development across Other Settlements was sought and a notional limit of 80 homes per settlement was used as a guide to ensure a distribution for deliverability reasons.

### **6.3 Summary of site appraisal findings**

- 6.3.1 Tables 6.2 - 6.18 below illustrate the scores for each site option against the site appraisal criteria. These have been grouped according to the settlements that they fall within.
- 6.3.2 Figures 6.1 and 6.2 which follow the summary tables present maps of all the housing and employment sites that have been considered throughout the SA process, differentiating between those that have been proposed for allocation and those that have not.

**Table 6.2 - Summary of housing site options assessment (Anstey / Glenfield)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals	
S36	SH9	Hollow Road, Anstey General Industrial, Anstey	Anstey	0.30	Green	Green	Grey	Grey	Grey	Light Green	Grey	Green	Grey	Grey	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
S45	PSH154	249 Bradgate Road, Anstey	Anstey	0.90	Light Green	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S122	SH10	Land between 1 & 3 Latimer Street & 10a & 16 Bradgate Road, Anstey	Anstey	0.13	Green	Light Green	Grey	Grey	Grey	Light Green	Grey	Green	Grey	Grey	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S123	PSH2	Land West of Gorse Hill, Anstey	Anstey	4.58	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Green	Orange	Grey	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S124	PSH297	237 Bradgate Road	Anstey	1.27	Light Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S129	PSH144	Land at Gynsill Lane & Anstey Lane, Glenfield	Anstey/Glenfield	20.43	Grey	Light Green	Grey	Light Green	Grey	Grey	Grey	Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S165	SH4	Albion Street/Rosebery Road, Anstey	Anstey	0.28	Green	Green	Grey	Grey	Light Green	Grey	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S200	PSH387	High Leys Farm / Manor Farm	Anstey	5.82	Grey	Light Green	Grey	Light Green	Grey	Grey	Grey	Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S201	PSH388	High Leys Farm / Manor Farm	Anstey	21.84	Grey	Light Green	Grey	Light Green	Grey	Grey	Grey	Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
S250	PSH389	Land off Groby Road	Anstey	20.18	Grey	Light Green	Orange	Light Green	Grey	Grey	Grey	Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	

The sites within the settlement boundary score well overall, especially in terms of accessibility. However only site PSH387 was allocated.

Gynsill Land & Anstey Land, Glenfield (PSH144) is proposed for allocation. The site scores well with regards to environmental factors, but it scores less well in terms of overlap with wind energy opportunities and is not within close proximity to the existing urban area (meaning access is not as good as those in the urban area).

A further site allocation is made at High Leys Farm / Manor Farm (PSH387). This records mostly neutral effects with regards to environmental factors, but a minor constraint is identified with regards to heritage and it overlaps with a wind opportunity area. Compared to the discounted sites of a similar size, it performs better in terms of accessibility (PSH388, PSH2). It performs similar to PSH388 in environmental terms, but is better on balance compared to PSH2.

**Table 6.3 - Summary of housing site options assessment (Barkby)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S1	PSH8	Land east of Barkby	Barkby	46.09	Orange	Green	Orange	Green	Grey	Orange	Grey	Red	Red	Orange	Grey	Green	Red	Green	Grey	Grey	Green	Red	Orange	Green	Orange
S40	PSH345	Hamilton Grounds Farm, Hamilton Lane, Hamilton	Barkby Thorpe	4.54	Grey	Green	Grey	Grey	Grey	Grey	Grey	Red	Red	Red	Grey	Orange	Orange	Green	Grey	Grey	Red	Red	Orange	Red	Grey
S46	PSH7	Land west of Barkby, Barkby	Barkby	8.87	Orange	Green	Orange	Green	Grey	Grey	Grey	Red	Red	Red	Grey	Grey	Red	Green	Grey	Grey	Grey	Orange	Orange	Grey	Orange
S125	PSH178	Land off Hamilton lane, Barkby Thorpe	Barkby	7.49	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Red	Red	Grey	Orange	Red	Green	Grey	Grey	Green	Orange	Orange	Red	Grey
S234	PSH409	Land adjacent Scraftoft	Barkby Thorpe	5.30	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Red	Red	Orange	Grey	Orange	Orange	Green	Grey	Grey	Red	Red	Orange	Red	Grey

There are no site allocations in this location. The sites are all constrained by the historic environment and also exhibit poor accessibility overall.

**Table 6.4 - Summary of housing site options assessment (Barrow-upon-Soar)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S2	PSH177	Cotes Road, Barrow upon Soar	Barrow upon Soar	6.63	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Orange	Green	Orange
S30	PSH281	Meadow Farm Marina, Huston Close	Barrow Upon Soar	2.47	Green	Green	Orange	Grey	Orange	Green	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Grey	Orange
S47	PSH237	Land at Strancliffe Lane	Barrow upon Soar	16.10	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Orange	Green	Pink
S51	PSH342	Land at The Apiary, Brook Lane	Barrow upon Soar	0.79	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Orange	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Orange	Grey	Green	Grey
S110	PSH392	Land off Melton Road	Barrow upon Soar	6.35	Grey	Green	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Green	Grey	
S111	PSH391	Land to south of Melton Road	Barrow upon Soar	6.92	Grey	Green	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Green	Orange	
S126	PSH242	Land adjoining 84 Melton Road	Barrow upon Soar	0.74	Grey	Green	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Green	Orange	Green	Grey	
S127	PSH282	Land off Nottingham Road	Barrow upon Soar	1.93	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Pink	Grey	Green	Grey	Grey	Grey	Orange	Green	Grey	
S128	PSH280	Land and Cotes Road, (within PSH177, area & dwellings discounted)	Barrow upon Soar	3.46	Green	Grey	Grey	Green	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Green	Green	Orange	Grey	Grey	Orange	Green	Orange	Green	Orange
S162	SH22	Land off Nottingham Rd, Barrow on Soar	Barrow upon Soar	0.56	Green	Orange	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Orange	Green	Grey	
S219	PSH410	Land at Fishpool farm	Barrow upon Soar	8.79	Grey	Green	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Green	Orange	
S220	PSH321	Land off Cotes Road overlaps,PSH308,PSH307	Barrow upon Soar	7.44	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Green	Green	Orange	
S239	PSH283	123 Cotes Road	Barrow upon Soar	0.65	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Orange	Green	Green	Orange	
S251	PSH307	Land to the rear of 91-93 Cotes Rd.	Barrow upon Soar	0.52	Green	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Green	Green	Orange	
S252	PSH308	Land to the rear of 111 Cotes Rd.	Barrow upon Soar	0.37	Green	Green	Grey	Grey	Grey	Green	Grey	Green	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Green	Green	Orange	
S253	PSH374	3A - 9 Melton Road	Barrow upon Soar	0.21	Green	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Green	Green	Grey	

Three sites to the east / north east of Barrow – upon – soar have been allocated (PSH392, PSH391, PSH242). Discounted sites such as PSH307 & 308 score fairly positive overall with few environmental constraints and better accessibility. However, these are small scale. Other comparable site options that were discounted (PSH321, PSH280, PSH410) perform similarly overall compared to the sites proposed for allocation.

PSH237 is a discounted site option which performs similarly to the sites proposed for allocation, but has slightly poorer access to services and presents more constraints in relation to minerals.

**Table 6.5 - Summary of housing site options assessment (Birstall, Thurmaston and Wanlip)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Assessment Criteria																				
					Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S42	PSH357	Mill Lane Car Park, Mill Lane	Thurmaston	0.22	Green	Grey	Orange	Grey	Orange	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	
S43	PSH360	100 Colby Drive	Thurmaston	0.08	Green	Green	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Orange	Orange	Green
S50	PSH241	Land off Meadow Lane	Birstall	1.82	Green	Green	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Green	Green	Grey
S72	PSH80	North of Birstall, Land off Butchers Lane	Wanlip	3.20	Orange	Green	Orange	Green	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Orange	Green	Grey	Grey	Grey	Orange	Orange	Orange	Orange
S73	PSH79	Land off Rectory Road, Wanlip (mixed residential)	Wanlip	5.31	Orange	Green	Grey	Green	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Orange	Green	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Orange
S84	SH166	Warehouse & Premises, Unit 3, 157 Humberstone Lane	Thurmaston	0.73	Green	Green	Grey	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey
S91	PSH189	Land off Barkby Thorpe Lane, Thurmaston	Thurmaston	13.00	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Green	Green	Green	Grey
S92	SH163	Rear of Manor Medical Centre, Melton Road	Thurmaston	0.27	Green	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S93	PSH77	Land at 588/600 Melton Road, Thurmaston	Thurmaston	0.22	Green	Green	Grey	Grey	Orange	Green	Orange	Green	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S94	SH168	Wheatleys Road, Thurmaston	Thurmaston	1.80	Green	Green	Grey	Grey	Orange	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S103	PSH57	Land at Thurmaston, Thurmaston	Thurmaston	12.03	Grey	Green	Grey	Green	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Orange	Grey	Grey	Grey	Orange	Grey	Orange	Orange
S104	PSH294	Land South of Barkby Lane, within NEL SUE boundary, area and dwellings discounted	Thurmaston	5.60	Grey	Green	Grey	Grey	Orange	Grey	Grey	Orange	Grey	Grey	Grey	Green	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Orange
S155	SH155	Church Hill Road, Thurmaston	Thurmaston	7.91	Green	Green	Grey	Grey	Green	Grey	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Green	Orange	Green	Grey
S156	SH156	Humberstone Lane, Thurmaston	Thurmaston	4.12	Green	Green	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S157	SH162	Rear of 36-46 Colby Road, Thurmaston	Thurmaston	0.43	Green	Grey	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S158	PSH191	Works opposite 46 Brook Street	Thurmaston	0.24	Green	Green	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S159	PSH192	Works adjacent 46 Brook Street	Thurmaston	0.16	Green	Green	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Grey
S160	PSH207	West Thurmaston	Thurmaston	19.33	Green	Grey	Orange	Grey	Orange	Grey	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Orange
S161	PSH72	Land off Birstall/Wanlip	Birstall	1.22	Orange	Green	Grey	Green	Grey	Grey	Green	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Green	Orange
S196	PSH208	West Thurmaston	Thurmaston	3.85	Green	Orange	Grey	Grey	Grey	Orange	Green	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Orange
S199	SH167	Warehouse & Premises, Unit B, Britannia Way	Thurmaston	2.27	Green	Grey	Grey	Grey	Green	Orange	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Orange
S235	PSH411	Land off Birstall Meadow Road/Long Meadow Way	Birstall	0.36	Green	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Grey	Orange	Orange	Green	Orange

Several small site allocations are proposed for allocation in Thurmaston (PSH192, PSH191, SH163, SH162). These all have relatively good access to services and facilities, and exhibit few environmental constraints. There are several other discounted sites in the urban area that perform similarly, but some have specific constraints such as flood risk and / or employment use.

PSH189 is a larger site allocation on the urban fringes. This performs relatively well in terms of accessibility and does not exhibit any notable environmental constraints. There are discounted site options in this area. PSH208 is on the urban fringes, but performs less well against accessibility factors and is also constrained by flood risk, local green space and biodiversity.

Site PSH294 has been discounted, which lies close to site PSH189. The site performs fairly similar, but is constrained in terms of flood risk and is slightly less positive in respect of accessibility.

**Table 6.6: Housing site options assessment (Burton on the Wolds, Cotes, Prestwold, Walton on the Wolds, Wymeswold, Hoton)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S48	PSH182	Sturdee Poultry Farms Site, Sowters Lane	Burton on the Wolds	3.10																					
S49	PSH13	Land near Fishpond Plantation	Burton on the Wolds	9.85																					
S54	PSH180	Land at The Dutch Barn, 27A Wymeswold Road	Hoton	0.32																					
S55	PSH159	39 Pear Tree Farm, Old Parsonage Lane	Hoton	0.57																					
S67	PSH188	Narrow Lane/Bakers Lane, Wymeswold	Wymeswold	2.23																					
S68	PSH185	Narrow Lane, Wymeswold	Wymeswold	5.67																					
S69	PSH187	Land at Bakers Lane, Wymeswold	Wymeswold	3.40																					
S70	PSH296	East Road/Narrow Lane Wymeswold	Wymeswold	5.50																					
S71	PSH186	Land at Narrow Lane	Wymeswold	0.19																					
S74	PSH78	Loughborough Road, Walton on the Wolds	Walton on the Wolds	0.49																					
S95	PSH158	The Old Grain Store, Back Lane, Cotes (Prestwold)	Prestwold	1.06																					
S114	PSH394	Land North of Prestwold Lane and South of Wymeswold Rd	Hoton	11.13																					
S118	PSH407	Land North of East Road, Wymeswold	Wymeswold	3.44																					
S119	PSH87	Wymeswold Airfield, Wymeswold	Hoton	51.22																					
S174	PSH163	Land adjacent to 6 St Marys Close	Burton on the Wolds	4.12																					
S175	PSH97	Land to east of Souters Lane & to south of Melton Road to r/o Melton Road	Burton on the Wolds	4.71																					
S189	PSH250	Land off Hoton Road	Wymeswold	4.00																					
S208	PSH167	East Road, Wymeswold	Wymeswold	1.71																					
S218	PSH289	Land off Loughborough Road	Burton on the Wolds	3.86																					
S247	PSH123	Land at Cotes	Cotes	128.54																					

No sites are proposed for allocation in these settlements. Broadly speaking accessibility is very poor in these settlements.



There are two site options in Cossington and both have been proposed for allocation. These both perform relatively well with regards to environmental constraints with heritage issues being the main concern. Access to some services and facilities is not ideal, but this reflects Cossington's place in the settlement hierarchy.

At Sileby six sites have been proposed for allocation (PSH439 , PSH111, SH132, PSH64, SH129, PSH353).

**Table 6.8: Summary of housing site options assessment (Thurcaston and Cropston)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S75	PSH47	The former Rectory & Land at Thurcaston	Thurcaston	1.24	Green	Grey	Grey	Green	Grey	Grey	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Grey	Green	Orange	Orange	Green	Grey
S76	PSH235	Land off Thurcaston Lane	Thurcaston	11.31	Orange	Green	Orange	Green	Grey	Grey	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Grey	Green	Red	Orange	Green	Orange
S77	PSH120	Land east of Leicester Road	Thurcaston	38.61	Orange	Green	Orange	Green	Grey	Orange	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Green	Red	Orange	Green	Grey	Orange
S78	PSH236	Land off Station Road	Cropston	0.75	Orange	Grey	Grey	Green	Grey	Grey	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Grey	Grey	Red	Orange	Grey	Orange
S79	PSH239	Pastureland off Latimer Road	Cropston	9.69	Orange	Green	Orange	Green	Grey	Grey	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Grey	Green	Orange	Orange	Green	Grey
S80	PSH16	Land off Cropston Road, Cropston	Cropston	3.39	Green	Grey	Grey	Green	Grey	Grey	Grey	Red	Orange	Orange	Grey	Green	Red	Green	Grey	Grey	Orange	Orange	Orange	Green	Grey

No sites are proposed for allocation in these settlements. There are potential negative effects upon the historic environment for all of the site options, as well as landscape constraints for four of the six site options. Access to services is also fairly poor overall.

**Table 6.9: Housing site options assessment (East Goscote, Queniborough, Ratcliffe on the Wreake, Seagrave, Thrussington, Rearsby)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S58	PSH316	Land off Barkby Road Queniborough	Queniborough	5.79																					
S59	PSH221	Melton Road, Queniborough	Queniborough	3.10																					
S62	PSH381	Land at Melton Road	Rearsby	4.48																					
S63	PSH378	Sacred Heart Convent, 61 Station Road	Rearsby	5.74																					
S64	PSH100	Land off Gaddesby Lane, Rearsby	Rearsby	2.47																					
S65	PSH259	Land off Melton Road, Rearsby	Rearsby	2.21																					
S66	PSH88	Grange Avenue/Melton Road, Rearsby	Rearsby	2.31																					
S81	PSH376	Land off Old Gate Road	Thrussington	3.17																					
S82	SH31	West of Railway Line, ex Sewage Works,	East Goscote	2.91																					
S83	PSH46	Land East of Main Street,	Ratcliffe on the Wreake	0.33																					
S89	PSH58	Hawley Fields Farm, Seagrave	Seagrave	1.01																					
S90	PSH151	Big Lane, Seagrave	Seagrave	1.18																					
S97	PSH130	Land at Hoby Road, Thrussington	Thrussington	0.35																					
S98	PSH165	Brook Barn, Seagrave Road, Thrussington	Thrussington	0.17																					
S117	PSH401	Land lying to the South West of Park Hill Lane,	Seagrave	9.98																					
S185	PSH183	Land at Mere Lane, Queniborough	Queniborough	0.27																					
S192	PSH147	44 Hoby Road, Thrussington	Thrussington	2.04																					
S193	PSH71	Land at Old Gate Road/Land at Thrussington	Thrussington	0.44																					
S207	PSH252	Land adjacent Rose Farm Mucklegate Lane	Seagrave	0.77																					
S209	PSH287	Queniborough Lodge	Queniborough	7.51																					
S230	PSH412	Land off Melton Road	East Goscote	17.57																					
S231	PSH42	Land at Threeways Farm	Queniborough	10.37																					
S238	PSH445	Land adj. 55 Main Street	Ratcliffe on the Wreake	0.50																					
S248	PSH446	Land off Melton Road	Queniborough	6.23																					

No site allocations are proposed for Seagrave, Thrussington, and Ratcliffe on the Wreake.

One site is proposed for allocation in East Goscote (PSH412). There is only one discounted site option. In comparison, the site proposed for allocation performs notably better in relation to accessibility. However, it is in a more sensitive location with regards to landscape, minerals and wind energy.

There are five site options in Rearsby. Only one site is proposed for allocation (PSH100). All of the site options perform similarly in terms of accessibility. In terms of environmental factors the selected site performs marginally better than the alternatives which are either constrained by landscape (PSH88) or heritage (PSH259, PSH381, PSH378).

There are six site options in Queniborough. Three are proposed for allocation (PSH42, PSH446, PSH287). Apart from site PSH287 (which performs slightly better than the other three site options overall) accessibility is comparable. With regards to environmental factors, the sites all perform similarly, with only PSH183 performing worse with regards to biodiversity. However, the three selected sites are all closer to the Syston AQMA.

**Table 6.10: Housing site options assessment (Loughborough)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S3	SH56	Former Petrol Station, Pinfold Gate, Loughborough	Loughborough	0.12	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S4	SH102	Southfields Road Car Park, Loughborough	Loughborough	0.13	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S5	PSH21	Extend Park Grange, Loughborough	Loughborough	6.25	Orange	Grey	Green	Grey	Green	Green	Green	Orange	Pink	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Orange	Green	Green
S31	PSH245	Carillon Court Shopping Centre Derby Square	Loughborough	0.22	Green	Green	Orange	Grey	Pink	Green	Orange	Green	Grey	Green	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S32	PSH106	Nanpantan Grange, Land south west of loughborough.	Loughborough	204.46	Orange	Green	Orange	Green	Green	Orange	Green	Grey	Pink	Pink	Green	Green	Green	Green	Green	Green	Green	Green	Orange	Green	Green
S33	PSH311	Sital House 3 to 6 Cattlemarket Loughborough	Loughborough	0.04	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S105	PSH382	Former Government Offices, 2 Lemyngton Street	Loughborough	0.19	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S107	PSH25	Moat Farm, Loughborough	Loughborough	20.61	Orange	Green	Grey	Green	Green	Green	Green	Green	Pink	Orange	Green	Green	Green	Green	Orange	Green	Green	Green	Orange	Green	Green
S108	PSH385	Duke Street Motors King Edward Road LE11 1RZ	Loughborough	0.09	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Orange	Green	Green	Green
S115	PSH255	Land at Woodthorpe, East & West of A6004 Epinal Way	Loughborough	48.75	Grey	Grey	Green	Grey	Pink	Green	Green	Pink	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Orange	Green	Green	Pink
S130	PSH34	Knightthorpe Road	Loughborough	0.35	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S131	SH60	Former Main Post Office, Sparrow Hill, Loughborough	Loughborough	0.08	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S132	SH49	Cumberland Industrial Estate, Loughborough	Loughborough	0.71	Green	Green	Orange	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S133	PSH202	Hospital Way, Cumberland Trading Estate, Cumberland Road	Loughborough	2.28	Green	Green	Orange	Grey	Green	Green	Green	Green	Orange	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S134	PSH119	Land at Frederick Street, Loughborough	Loughborough	0.38	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S135	PSH32	Price Shepshed Factory, Great Central Road	Loughborough	1.22	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S136	SH77	Land Used for Storage, Windmill Road, Loughborough	Loughborough	3.03	Green	Green	Orange	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S137	SH84	Part of Baxter Gate Opportunity Site, Loughborough	Loughborough	1.08	Green	Green	Grey	Grey	Green	Green	Orange	Green	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
S138	PSH171	30 Meadow Lane, Loughborough	Loughborough	0.27	Green	Green	Grey	Grey	Green	Green	Green	Green	Orange	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S139	SH81	Nottingham Road, Loughborough	Loughborough	1.46	Green	Green	Grey	Grey	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green
S140	PSH251	Sports Ground off Leicester Road	Loughborough	2.22	Green	Green	Grey	Grey	Green	Green	Orange	Green	Orange	Green	Green	Pink	Green	Green	Green	Green	Green	Orange	Green	Green	Green
S141	PSH27	Bull in the Hollow Farm, Leicester Road	Loughborough	15.45	Green	Orange	Grey	Green	Orange	Green	Green	Green	Pink	Green	Green	Green	Green	Green	Green	Green	Green	Orange	Orange	Orange	Pink

**Table 6.11: Housing site options assessment (Loughborough)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S142	SH75	Land to r/o The Old Pack Horse, Pack Horse Lane	Loughborough	0.03	Green	Green	Grey	Grey	Green	Green	Grey	Green	Grey	Green	Green	Green	Green	Green	Grey	Grey	Green	Green	Green	Green	Grey
S143	PSH133	Land r/o Snells Nook Lane, Loughborough	Loughborough	7.47	Grey	Grey	Grey	Green	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Orange	Orange	Orange	Green	Grey
S144	PSH267	Land off Beacon Road	Loughborough	1.52	Green	Grey	Grey	Grey	Green	Green	Grey	Green	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey
S150	PSH24	Garendon Park, Loughborough	Loughborough	24.88	Green	Green	Green	Green	Green	Green	Green	Green	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Green	Green	Green	Orange
S168	PSH313	Park Grange Farm, Newstead Way	Loughborough	0.51	Green	Grey	Grey	Grey	Green	Green	Grey	Green	Orange	Pink	Grey	Green	Pink	Green	Grey	Grey	Green	Green	Orange	Green	Grey
S178	PSH284	Land south of Nanpantan Road	Loughborough	4.70	Orange	Green	Orange	Green	Grey	Grey	Grey	Green	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Orange	Green	Grey
S179	SH51	Devonshire Square Opportunity Site, Loughborough	Loughborough	1.30	Green	Green	Orange	Grey	Orange	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Green	Green	Green	Grey
S180	SH76	Land Used for Storage & Premises, Chainbridge Road	Loughborough	0.34	Green	Green	Orange	Grey	Green	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Green	Green	Grey
S202	PSH248	Land South of Woodthorpe and off the A6004	Loughborough	24.53	Orange	Grey	Grey	Green	Orange	Green	Orange	Pink	Pink	Grey	Grey	Green	Orange	Green	Green	Grey	Grey	Pink	Orange	Orange	Pink
S214	SH78	Leicester Road/Aumbery Gap Opportunity Site	Loughborough	0.55	Green	Green	Grey	Grey	Green	Green	Orange	Green	Grey	Green	Green	Green	Green	Green	Grey	Grey	Green	Green	Green	Green	Grey
S215	PSH417	108 - 114 Nottingham Road	Loughborough	0.08	Green	Green	Orange	Grey	Green	Green	Orange	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Green	Green	Green	Grey
S216	PSH418	1 Morley Street	Loughborough	1.62	Green	Grey	Orange	Grey	Orange	Green	Orange	Green	Orange	Grey	Grey	Green	Green	Green	Pink	Grey	Grey	Green	Green	Green	Orange
S217	PSH416	41A Nottingham Road	Loughborough	0.07	Green	Green	Grey	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Green	Green	Green	Grey
S221	PSH415	Land off Highland Drive and Knox road	Loughborough	0.76	Green	Green	Grey	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Orange	Green	Grey
S256	PSH447	Land off Leconfield Road	Loughborough	1.68	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Grey	Green	Pink	Green	Grey	Grey	Green	Orange	Orange	Green	Grey

The sites within the Loughborough urban area all perform broadly well with regards to accessibility and environmental constraints. The main constraint is air quality, which applies to several of the sites proposed for allocation, or exiting employment uses (which applies to several discounted options).

On the urban fringes, large amounts of land are proposed for allocation to the south. These generally perform poorer in respect of landscape character, land and soil, and overlaps with energy opportunity areas. Accessibility is also poorer overall when compared to the urban area sites. Of the sites located to the south and south west, most are proposed for allocation. However, site PSH284 has been discounted. This site has

biodiversity and water pollution constraints, and overlaps with areas of high wind potential. It does not perform any worse overall (when considered against the full range of criteria) than the selected site options though.

There are also discounted site options at the urban fringes to the south east. One of these PSH27 is at risk of flooding, has biodiversity constraints and poor accessibility. It is also in a minerals safeguarded area and overlaps with areas with high potential for wind energy. A smaller site option in this area (PSH251) performs relatively well against most criteria, but it is an existing sports pitch.

**Table 6.12: Housing site options assessment (Mountsorrel and Rothley)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S6	PSH233	Disused Nursery r/o 263 Loughborough Road	Mountsorrel	0.51	Green	Grey	Grey	Grey	Grey	Grey	Grey	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Orange	Green	Grey	Orange
S7	SH104	2 Granite Way, Mountsorrel	Mountsorrel	0.28	Green	Light Green	Grey	Grey	Grey	Grey	Grey	Green	Orange	Grey	Grey	Grey	Green	Green	Grey	Grey	Grey	Orange	Green	Grey	Orange
S8	PSH49	Land off Rothley Road, Mountsorrel	Mountsorrel	0.77	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Green	Orange	Orange	Grey	Grey	Light Green	Green	Grey	Grey	Grey	Green	Light Green	Green	Orange
S10	PSH300	Land off Wellsic Lane/Westfield Lane	Rothley	0.65	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Light Green	Grey	Grey	Grey	Light Green	Green	Green	Grey	Grey	Grey	Light Green	Green	Green	Orange
S11	PSH161	Land adjacent to 171 Swithland Lane, Rothley	Rothley	1.25	Light Green	Orange	Grey	Grey	Grey	Grey	Grey	Light Green	Orange	Grey	Grey	Light Green	Green	Green	Grey	Grey	Grey	Light Green	Green	Grey	Orange
S12	PSH128	Land at Woodcock Farm, Rothley	Rothley	5.72	Light Green	Light Green	Grey	Light Green	Grey	Grey	Grey	Green	Orange	Orange	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Green	Green	Orange
S37	SH112	Walkers Transport, Loughborough Road	Mountsorrel	0.29	Green	Green	Grey	Grey	Grey	Light Green	Grey	Green	Orange	Grey	Grey	Light Green	Green	Green	Grey	Light Green	Grey	Orange	Green	Light Green	Orange
S56	SH111	Rear of 249-263 Leicester Road	Mountsorrel	0.41	Green	Grey	Grey	Grey	Grey	Light Green	Grey	Grey	Grey	Grey	Grey	Light Green	Green	Green	Grey	Grey	Grey	Light Green	Green	Light Green	Orange
S101	PSH288	Brickyard Farm Rothley	Rothley	0.86	Light Green	Grey	Grey	Grey	Grey	Light Green	Grey	Orange	Grey	Orange	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Orange	Light Green	Orange
S120	PSH55	South of Wyevale garden centre between the A6 & River Soar	Rothley	9.76	Grey	Grey	Orange	Grey	Orange	Grey	Grey	Orange	Light Green	Grey	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Grey	Light Green	Orange
S148	PSH53	Land south of Rothley, Rothley	Rothley	2.37	Light Green	Light Green	Grey	Grey	Grey	Grey	Grey	Green	Orange	Orange	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Green	Light Green	Orange
S197	PSH377	Land off Westfield Lane	Rothley	12.33	Grey	Light Green	Grey	Light Green	Grey	Grey	Grey	Light Green	Orange	Grey	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Green	Green	Orange
S198	PSH145	Land at The Ridings/West Cross Lane, (Ridgeway)	Rothley	2.80	Light Green	Light Green	Grey	Grey	Grey	Grey	Grey	Light Green	Orange	Grey	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Orange	Light Green	Grey
S226	PSH435	Land off Homefield Lane	Rothley	9.08	Grey	Orange	Grey	Light Green	Orange	Grey	Grey	Light Green	Light Green	Grey	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Green	Light Green	Orange
S227	PSH434	Brooklea Nursery, Loughborough Road	Rothley	5.29	Grey	Light Green	Grey	Light Green	Grey	Grey	Grey	Light Green	Orange	Grey	Grey	Light Green	Light Green	Green	Grey	Light Green	Grey	Light Green	Green	Light Green	Orange
S228	PSH428	Land off Halstead Road	Mountsorrel	2.41	Light Green	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Grey	Grey	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Orange	Light Green	Orange
S249	PSH400	Land off Brookfield Road	Rothley	6.00	Grey	Orange	Orange	Light Green	Grey	Grey	Grey	Light Green	Light Green	Orange	Grey	Light Green	Light Green	Green	Grey	Grey	Grey	Light Green	Green	Light Green	Orange
S255	PSH209	215-217 Mountsorrel Lane	Rothley	0.39	Green	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Light Green	Green	Green	Grey	Grey	Grey	Light Green	Green	Light Green	Orange

One small site has been proposed for allocation within Mountsorrel (SH111). Other than being located in a minerals safeguarding area, there are no environmental constraints at this site, and it performs generally well with regards to accessibility. There are several discounted site options which all perform comparably.

At Rothley, two sites are proposed for allocation (PSH53 and PSH128). There are several other discounted site options. All of the site options in this location perform relatively well in terms of accessibility, with the exception of a secondary school. Each of the sites perform comparably in this respect.

Both of the sites proposed for allocation perform relatively well with regards to environmental factors, though both present the potential for minor negative effects. There are discounted sites that do not exhibit this constraint, but they are characterised by other issues such as flood risk and water pollution (PSH55, PSH435) and overlap with areas of wind energy opportunities (PSH435, PSH55, PSH377).

**Table 6.13: Housing site options assessment (Newton Linford)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S9	PSH41	Land r/o properties at Markfield Lane & Leicester Rd	Newton Linford	8.08	Green	Orange	Grey	Grey	Grey	Grey	Grey	Green	Pink	Orange	Grey	Orange	Pink	Green	Grey	Grey	Pink	Pink	Orange	Pink	Orange
S34	PSH320	Land off Leicester Road	Newton Linford	1.11	Green	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Orange	Pink	Green	Grey	Grey	Pink	Pink	Orange	Pink	Orange
S57	PSH184	Beech Farm, 552 Bradgate Farm	Newton Linford	0.21	Grey	Green	Orange	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Grey	Green	Pink	Green	Grey	Grey	Green	Orange	Green	Green	Orange
S100	PSH40	Pastureland at 50 Ashby Road, Markfield	Newton Linford	2.01	Green	Grey	Grey	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Orange	Pink	Green	Grey	Grey	Pink	Pink	Orange	Pink	Orange
S173	PSH347	Land off Leicester Road, Markfield	Newton Linford	2.05	Green	Grey	Grey	Grey	Grey	Grey	Grey	Pink	Orange	Grey	Grey	Orange	Pink	Green	Grey	Grey	Pink	Pink	Orange	Pink	Orange
S181	PSH238	Land between 151 and 185 Markfield Lane	Newton Linford	1.09	Green	Orange	Grey	Grey	Grey	Grey	Grey	Pink	Orange	Grey	Grey	Orange	Pink	Green	Grey	Grey	Orange	Pink	Orange	Pink	Orange
S182	PSH99	Land to the west of Newtown Linford	Newton Linford	0.67	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Pink	Green	Grey	Grey	Green	Green	Orange	Green	Orange
S183	PSH257	Land South of Markfield Lane	Newton Linford	10.36	Orange	Green	Orange	Green	Grey	Grey	Grey	Orange	Pink	Pink	Grey	Grey	Pink	Green	Grey	Grey	Green	Pink	Orange	Green	Pink
S184	PSH258	Land North of Markfield Lane	Newton Linford	12.61	Orange	Grey	Orange	Grey	Grey	Grey	Grey	Orange	Pink	Grey	Grey	Green	Pink	Green	Green	Grey	Green	Pink	Orange	Green	Orange
S236	PSH429	Seven Oaks Nursery, Groby Lane	Newton Linford	0.76	Grey	Green	Grey	Grey	Grey	Green	Grey	Pink	Orange	Grey	Grey	Orange	Orange	Green	Grey	Grey	Orange	Pink	Orange	Orange	Orange
S237	PSH430	Land off Markfield Lane	Newton Linford	0.79	Green	Orange	Grey	Grey	Grey	Grey	Grey	Pink	Orange	Grey	Grey	Orange	Pink	Green	Grey	Grey	Pink	Pink	Orange	Pink	Orange

No sites have been proposed for allocation in Newton Linford. All of the sites have very poor accessibility.

**Table 6.14: Housing site options assessment (Quorn)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S35	PSH309	Land off Armston Road	Quorn	1.11	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Green	Grey	Orange	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Green	Green	Orange
S60	PSH98	Land off Farley Way (between the present football club & Beacon View Farm)	Quorn	10.26	Green	Green	Grey	Green	Orange	Grey	Grey	Green	Pink	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Pink
S61	SH115	Quorn High Street	Quorn	0.81	Green	Green	Orange	Grey	Pink	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Pink	Grey	Grey	Grey	Green	Green	Green	Orange
S147	PSH44	Buddon Lane, Quorn	Quorn	2.40	Green	Green	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Orange	Orange	Green	Orange
S170	PSH343	East of Loughborough Road	Quorn	5.71	Green	Grey	Grey	Green	Orange	Grey	Grey	Green	Pink	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Orange
S186	PSH107	Beacon View Farm, Quorn	Quorn	3.28	Green	Green	Grey	Grey	Pink	Grey	Grey	Green	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Orange	Green	Green	Green	Orange
S187	PSH108	Land off Loughborough Road, Quorn	Quorn	11.75	Green	Green	Grey	Grey	Grey	Grey	Grey	Green	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Green	Green	Pink
S206	PSH399	One Ash, Loughborough Road	Quorn	1.81	Green	Grey	Orange	Grey	Orange	Grey	Grey	Green	Pink	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Orange
S222	PSH432	Unit 11, Clear View Farm 103 Loughborough Road	Quorn	0.88	Green	Green	Grey	Grey	Grey	Green	Grey	Green	Orange	Grey	Grey	Green	Grey	Pink	Grey	Grey	Green	Green	Green	Green	Orange
S244	PSH433	Land and property off Armston Road	Quorn	1.42	Grey	Orange	Grey	Grey	Grey	Green	Grey	Green	Grey	Orange	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Green	Green	Orange

The site proposed for allocation in Quorn has been identified through the neighbourhood planning process.



There are 11 sites proposed for allocation in Shepshed, with the majority located at the urban fringes. As such, these are not ideally located in terms of access to health care, schools and convenience stores. Most of the sites outside of the settlement boundary also fall within minerals safeguarded areas and overlap with areas with high potential for wind energy. The constraints in relation to biodiversity and landscape vary, and some provide opportunities for enhancement. In respect of heritage, there are no notable constraints for any of these sites.

The sites within the urban area generally perform better overall in terms of accessibility and environmental factors.

With regards to the sites at the urban fringes, a selection of options to the south of the settlement have not been proposed for allocation. In other locations (such as to the west) all sites have been selected. Several of these sites are in employment use and / or have poor accessibility to services.

**Table 6.16: Housing site options assessment (Syston)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S25	PSH124	Land at Melton Road, Syston	Syston	1.39	Green	Grey	Grey	Grey	Grey	Grey	Orange	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Orange	Green	Grey	Green	Orange
S26	SH148	Land off Victoria Street, Syston	Syston	1.52	Green	Green	Orange	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Green	Green	Green	Pink	Grey	Green	Green	Green	Green	Orange
S27	PSH303	Triangle of land bounded by Albert Street, Victoria Street and Cross Street	Syston	0.15	Green	Green	Orange	Grey	Grey	Green	Grey	Green	Grey	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Green	Green	Orange
S28	SH141	Brook Street, Syston	Syston	0.74	Green	Green	Grey	Grey	Grey	Green	Grey	Green	Grey	Green	Grey	Green	Green	Green	Pink	Grey	Green	Green	Green	Green	Orange
S29	PSH69	Land at Syston	Syston	103.10	Orange	Green	Orange	Green	Orange	Pink	Grey	Green	Pink	Pink	Grey	Green	Green	Green	Green	Grey	Grey	Green	Green	Green	Pink
S109	SH150	St Peter's Street, Syston	Syston	0.41	Green	Green	Orange	Grey	Orange	Green	Grey	Green	Orange	Grey	Grey	Green	Green	Green	Pink	Grey	Green	Orange	Green	Green	Orange
S116	PSH102	A607, Syston	Syston	1.73	Green	Orange	Grey	Grey	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Pink	Green	Green	Grey	Grey	Pink	Green	Orange	Green	Orange
S121	SH139	1142 Melton Road, Syston	Syston	0.19	Green	Green	Grey	Grey	Grey	Green	Orange	Green	Grey	Grey	Grey	Green	Green	Green	Pink	Grey	Grey	Green	Green	Green	Orange
S154	SH152	Warehouse & Premises, Unit 5, Wanlip Road, Syston	Syston	5.81	Green	Green	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Green	Green	Green	Pink	Grey	Orange	Green	Orange	Green	Orange
S172	PSH356	10 Brookside	Syston	0.15	Green	Green	Orange	Grey	Pink	Green	Grey	Green	Pink	Grey	Grey	Green	Green	Green	Pink	Grey	Green	Green	Green	Green	Orange
S232	PSH441	Land north of Barkby Road	Syston	8.33	Green	Green	Grey	Green	Grey	Grey	Grey	Pink	Pink	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Orange	Green	Orange
S233	PSH70	Barkby Road	Syston	11.08	Green	Green	Grey	Green	Grey	Grey	Grey	Pink	Pink	Grey	Grey	Green	Green	Green	Green	Grey	Orange	Orange	Orange	Green	Pink

One very large site is proposed for allocation (PSH69). There are no comparable alternatives at Syston. This site has landscape constraints, areas of flood risk, land and soil impacts, potential negative effects on heritage and overlaps with areas of wind potential. On the face of it, this site therefore performs poorly. The actual effects will depend upon the scale of development though. In terms of accessibility, the site performs relatively well given its peripheral location.

Other site allocations are proposed at the urban fringes including PSH441 and PSH70. These perform generally well in environmental terms, but have relatively poor access to schools and a convenience store.

All the discounted site options are within the urban area. Therefore, the sites perform well in terms of landscape, biodiversity and most aspects of accessibility. However, certain sites exhibit specific constraints such as flood risk (PSH69, PSH356, PSH102, PSH150) and employment uses (PSH356, PSH152, PSH139, PSH150, PSH141, PSH148).

**Table 6.17: Housing site options assessment (Woodhouse)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S190	PSH82	Land at Woodhouse, Woodhouse	Woodhouse	0.84	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Grey	Orange	Orange	Green	Grey
S225	PSH444	Land at Maplewell Road	Woodhouse Eaves	1.31	Orange	Grey	Green	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Orange	Orange	Green	Grey
S242	PSH168	112 Main Street, Woodhouse Eaves	Woodhouse Eaves	3.04	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Orange	Orange	Green	Grey
S243	PSH443	Land rear of 64 Main Street	Woodhouse Eaves	2.75	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Grey	Grey	Green	Green	Green	Grey	Grey	Green	Orange	Orange	Green	Grey

No sites are proposed for allocation in Woodhouse or Woodhouse Eaves. Broadly speaking, these site options score poorly in terms of accessibility and could generate negative effects in terms of landscape, biodiversity and / or the historic environment.

**Table 6.18: Housing site options assessment (Hathern)**

ID	Client Map No	Site Address	Settlement	Site Area (ha)	Landscape	Biodiversity	Water Pollution	Water quality: Nitrates	Flood Risk	Land and soil	Air quality	Transport	Wind energy	Historic environment	Regeneration	Local green space	Access to health care	Housing	Employment land	Proximity to key routes	Primary school	Secondary school	Convenience store	Leisure	Minerals
S52	PSH152	Shepshed Rd Allotment & Building Site	Hathern	2.42	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
S53	SH33	J R Walton, The Leys	Hathern	0.21	Dark Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
S213	PSH413	Land off Zouch Road	Hathern	2.65	Light Green	Light Green	Orange	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
S240	PSH305	Land to the rear of 89 Loughborough Road	Hathern	1.67	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green

Three of the four site options in this location have been proposed for allocation (SH33, PSH305, PSH413). Given the small size of the settlement, each of the sites perform similarly with respect to accessibility. Site PSH413 performs less well compared to the other three options though.

Site PSH33 scores positively for landscape, biodiversity, transport and leisure, and therefore exhibits more positive characteristics than the other three site options. This is the smallest site though and so will deliver fewer homes.

The discounted site (PSH152) performs very similarly to PSH413 and PSH305 (which are comparable in size), but scores negatively in terms of local green space.



# **Draft Plan Appraisal**

**07**

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## 7 DRAFT PLAN APPRAISAL

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### 7.1 Introduction

- 7.1.1 This section presents an appraisal of the draft Plan against the SA Framework. Effects have been identified taking into account a range of characteristics including: magnitude, duration, frequency, and likelihood.
- 7.1.2 Combined, these factors have helped to identify the significance of effects, whether these are positive or negative.
- 7.1.3 Each of the draft policies has been considered in the appraisal, but the findings have been discussed on a 'whole plan' basis (rather than commenting on every policy individually).
- 7.1.4 This is important as Plan policies should be read in the context of the whole Plan and not in isolation. Policies can work interact with one another to create cumulative effects, synergistic effects and to help mitigate potential negative effects.
- 7.1.5 For each SA objective, the appraisal identifies the effects the Plan would have in relation to the spatial strategy (encapsulating all the proposed allocations for housing and employment land), and other 'general development'.
- 7.1.6 The effects are written in the text as part of the overall discussion. Bold and coloured text is used to highlight the different effects.

**Minor positive effects**

**Significant positive effects**

**Neutral effects**

**Minor negative effects**

**Significant negative effects**

- 7.1.7 For some predicted effects there may be an element of uncertainty, which has also been highlighted in the appraisal text.
- 7.1.8 A list of draft Plan policies is provided below for reference purposes.

<b>Overall development strategy</b>	
LP1	Development Strategy
LP2	Design
<b>Housing</b>	
LP3	Housing Sites
LP4	Affordable Housing
LP5	Rural Exception Sites
LP6	Housing Mix
LP7	Space Standards of Residential Properties
LP8	Self-build and Custom Housebuilding
LP9	Houses in Multiple Occupation
LP10	Campus and Purpose Built Student Accommodation
LP11	Gypsies, Travellers and Travelling Showpeople
<b>Economic Development</b>	
LP12	Meeting Employment Needs
LP13	Protecting Existing Employment Sites
LP14	Regeneration of Loughborough
LP15	Regeneration of Shepshed
LP16	Rural Economic Development
<b>Town Centres and Shopping</b>	
LP17	Town Centres and Retail
LP18	Hot Food Takeaways
<b>Environment</b>	
LP19	Landscape, Countryside, Green Wedges and Areas of Local Separation
LP20	Charnwood Forest and the National Forest
LP21	River soar and Grand Union Canal Corridor
LP22	Conserving and Enhancing Biodiversity and Geodiversity
LP23	Tree Planting
LP24	Heritage
<b>Healthy Communities, Open Space, Sport and Recreation</b>	
LP25	Open Spaces, Sport and Recreation
LP26	Indoor Sports Facilities
LP27	Protection of Community Facilities
LP28	Burial Space

<b>Renewable and Low Carbon Energy</b>	
LP29	Renewable and Low Carbon Energy Installations
LP30	Sustainable Construction
LP31	Flood Risk Management
LP32	Sustainable Drainage Systems (SuDS)
<b>Sustainable Travel</b>	
LP33	Sustainable Transport
<b>Road Transport</b>	
LP34	Local and Strategic Road Network
LP35	Car Parking Standards
<b>North Birstall Sustainable Urban Extension</b>	
LP36	North of Birstall Sustainable Urban Extension
LP37	Watermead Regeneration Corridor

## Appraisal findings

**7.2 Landscape** - *Protect and enhance the integrity and quality of the Borough's urban and rural landscapes, maintaining local distinctiveness and sense of place.*

### Strategy / site allocations

#### Leicester urban fringe (Anstey / Thurmaston / Syston)

- 7.2.1 Several sites have been allocated within Thurmaston and Birstall alongside other large development commitments and a Sustainable Urban Extension (SUE).
- 7.2.2 The effect on landscape as a result of such development is likely to be neutral given that urban areas are generally less sensitive to change, and commitments have been made surrounding the neighbourhoods which already significantly alter the overall value of the landscape.
- 7.2.3 In Syston, most of the site allocations are on open greenfield land. The largest site proposed allocation in Syston (HS4: Land South East of Syston) has an overall sensitivity rating of moderate - high and is approximately 50ha in size. Developing this parcel of land is likely to affect landscape character, with views from Barkby Lane in particular being altered. The site falls partly into areas identified as an Area of Local Separation, and parts of the site are also within an area formerly identified as Green Wedge.
- 7.2.4 To the south of the site is the North Leicester SUE, which will already lead to significant changes to the countryside in this part of the Borough. In combination, these two sites serve to reduce any 'gap' between Thurmaston / Birstall and Syston.
- 7.2.5 The setting of Barkby Village as a rural settlement will also be negative affected by additional growth in this location at Syston.
- 7.2.6 Several Plan policies will have a bearing on the effects of development in this location. In particular Policy LP19 (*Landscape, Countryside, Green Wedges and Areas of Local Separation*) requires development to be mindful of landscape character assessments and to maintain the individual character of settlements. This should help ensure that development is designed to minimise impacts.
- 7.2.7 Other plan policies could have benefits such as those promoting tree planting, biodiversity net gain, and open space. However, it is likely that a residual negative effect would remain given the sensitivity of this area. Given that there are no site specific measures to secure an appropriate green infrastructure strategy; **significant negative effects** could occur.
- 7.2.8 The North Leicester SUE will involve new green infrastructure networks, and so it is recommended that development on site HS4 is required to make links to this as well as wider existing networks.
- 7.2.9 Smaller site allocations to the north and east of Syston fall within areas of low and low-moderate sensitivity. With careful layout, design and landscaping, the effects are predicted to be neutral here.

## Loughborough

- 7.2.10 The allocated sites in the Loughborough urban area are of low sensitivity, and with high quality design, development could lead to an enhanced townscape. This is a minor positive effect.
- 7.2.11 Conversely, two large sites are proposed in close proximity to Charnwood Forest. The site at Woodthorpe is in an area of moderate sensitivity, whilst the site at Nanpantan Grange falls within areas of moderate-high sensitivity.
- 7.2.12 Allocating large sites in areas that are currently open landscape is likely to have negative effects. There is a need to ensure that these effects are not significant.
- 7.2.13 Charnwood Forest is a key asset to the Borough and large scale development nearby could have negative implications on character. However, an area of open space will remain between the development and the nearby Outwoods, and the land affected is agricultural in nature. A well designed development could potentially lead to increased tree cover (through Policy LP23), and could improve public access into the Charnwood Forest.
- 7.2.14 The site is of such a scale that it ought to be possible to set aside land for green infrastructure enhancement and community facilities, whilst still maintaining a relatively low density (i.e. 20dpa). The significance of effects could therefore be limited.
- 7.2.15 However, in the absence of site specific requirements, it is not certain that development would be designed with the characteristics of the Charnwood Forest at its heart. Key elements would be to ensure that development is low density, does not create hard borders with the countryside, and achieves net environmental gain. It would be beneficial to include such policy requirements in the Plan to guide growth to ensure that negative effects are avoided and positives maximised.
- 7.2.16 A **potential significant negative effect** is predicted at this stage (which would be avoided through firmer site specific requirements (or the commitment to a masterplan / design brief).
- 7.2.17 The site at Woodthorpe is in a less sensitive location, and provided the site is well designed (in accordance with Plan policies), negative effects are unlikely to be significant.
- 7.2.18 There is also a SUE located on land west of Loughborough. This will heavily affect the current landscape character, but has already been committed.
- 7.2.19 The Loughborough Science and Enterprise Park extension is also proposed and is approximately 78 ha. This too is in an open location and extends the urban area of Loughborough closer still to Shepshed (as is happening at the SUE). The effects in combination with all other growth in the area (both committed and proposed) is therefore negative.
- 7.2.20 In summary, proposed growth locations in Loughborough are likely to lead to a negative effect overall. The urban area of Loughborough will come closer to Shepshed, and urban development will also encroach into the Charnwood Forest. These are potentially **significant negative effects**. The Plan policies could help to mitigate effects and promote enhancements in some respects (for example increased tree cover). However, without site specific guidance it is possible that residual negative effects will remain.

## Shepshed

- 7.2.21 Development on allocated sites within the urban area of Shepshed is unlikely to affect landscape character. Provided that high quality design is achieved (as required by Policy LP2: *High quality design* in particular), then the townscape and public realm ought to be improved by new developments in the urban area.
- 7.2.22 At the urban fringes, the sensitivity of landscape is mixed. To the west, the majority of areas are classified as moderate landscape sensitivity, whilst to the south the classification is mostly low-moderate.
- 7.2.23 The sites allocated to the south are predicted to have neutral effects, as development is on lower sensitivity land, and the sites are isolated from one another (meaning that cumulative effects on landscape and 'settlement gaps' is limited). Furthermore, plan policies will need to be satisfied to ensure that landscape character is protected, and high quality design is secured.
- 7.2.24 To the west of the Shepshed a large amount of development is proposed. In combination with committed growth in this location, potential development land would span across the entire western side of Shepshed. Site HS44 extends development further into the Countryside also.
- 7.2.25 All of the allocated sites here are in areas of moderate sensitivity. Whilst effects on a site specific level could probably be managed; the cumulative effect of this quantum of growth is potentially negative. The character of the brook environment would be altered, as would its relationship with the existing urban fringes.
- 7.2.26 However, these locations have been identified as green infrastructure enhancement zones<sup>2</sup> and development could be the mechanism for achieving such improvements. In this respect, the residual effects could be neutral. However, the Plan does not set out clear requirements for a coordinated (masterplanned) approach to growth to the west of Shepshed. Connecting green space (and ecological networks) throughout this area is therefore less likely. Consequently, a residual **minor negative effect** is predicted.

## Service centres (Anstey, Sileby, Rothley, Quorn, Barrow-upon-Soar)

- 7.2.27 At Quorn, the allocated site has been ranked low-medium for landscape sensitivity. The site is not within close proximity to any large committed developments, and in isolation is unlikely to have a notable effect on landscape character. However, it is noted that the green gap between Quorn and Loughborough would be 'interrupted'. On balance, **neutral effects** are predicted.
- 7.2.28 In Rothley both site allocations are within areas of moderate landscape sensitivity. Development on the proposed allocations will bring the urban edge of Rothley right up to the A6. Whilst the Road provides an appropriate boundary to the settlement, the loss of green space here will reduce visual amenity for residents.
- 7.2.29 In terms of coalescence, development locations in Rothley are adjacent to the existing North of Birstall SUE. However, the indicative masterplan for the SUE sets out areas of open space that would maintain a break between the urban areas of Birstall and Rothley. The Area of Local Separation would also be avoided, and so effects are predicted to be **minor negatives** rather than being significant.

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<sup>2</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

- 7.2.30 Allocated sites within the urban area of Anstey are of low sensitivity, and so neutral effects are predicted with regards to landscape and townscape. Only one site is proposed for allocation to the west of the settlement, which falls within areas classified as having moderate landscape sensitivity. Development would be relatively small scale in the context of Anstey and would not be at a key gateway location. Through site layout, design and green infrastructure enhancement, a **neutral effect** is likely.
- 7.2.31 At Sileby, site HS64 (Land off Barnards Drive) is proposed for allocation. This is within an area categorised as having moderate landscape sensitivity; presenting the potential for negative effects on character. However, nature of surrounding countryside is already likely to be notably changed by large committed developments. In the context of these changes, the effects are unlikely to lead to a significant worsening of landscape character. However, there are likely to be impacts on visual amenity for specific members of the community, which is a **minor negative effect**.
- 7.2.32 At Barrow-upon-Soar three sites are allocated. One is small scale and adjacent to a large committed development; therefore the effects are limited. However, there are two relatively large sites on either side of Melton Road. These sites at the approach to the settlement from the north east, and can therefore be seen as a gateway location. The sites are also classified as being within areas of moderate sensitivity. Development would permanently change the character of the urban fringes in this location, and even with high quality design, there are likely to be residual **minor negative effects**. The sites are gently sloping, and are visible from Melton Road, development is also not that well related to the settlement, and creates a new edge to Barrow-upon-Soar beyond the existing area (which is quite well defined by Millenium Park. Despite the negative effects, there would still be substantial areas of countryside beyond the new urban boundary, with no danger of coalescence with nearby settlements.

Other settlements (Queniborough / East Goscote / Rearsby / Hathern / Cossington)

- 7.2.33 Site HS74 (Land at Threeways Farm) in Queniborough falls within an Area of Local Separation and is classified as moderate sensitivity. Development here therefore presents the possibility of negative effects. However, an area of open 'countryside' will remain between Queniborough and East Goscote, including open space between the proposed allocation and the A607. The land is currently agricultural and has no defining features, and therefore, the effects of a well-designed development would be minor. However, it will be important to ensure that 'rounding off' doesn't occur in the future, as this would reduce the gap between the two settlements. Overall, a **neutral effect** is predicted.
- 7.2.34 The proposed site at East Goscote is in an area of moderate-high sensitivity, and so development here is likely to have noticeable permanent effects on landscape character. Measures will need to be put in place to minimise the significance of effects, and there are several plan policies that could help to achieve this. The development is unlikely to lead to coalescence but nevertheless there will be **minor negative effects** due to the implications for local amenity.
- 7.2.35 At Rearsby there are two proposed allocations. One site is within a low-moderate sensitivity classification, the other is in a moderate sensitivity area. Both sites are relatively small and are logical extensions to the settlement.

- 7.2.36 Therefore, well designed developments (as purported through the Plan policies) should ensure that effects are **neutral**.
- 7.2.37 At Hathern the sites proposed for allocation are relatively small and fall within areas of low-moderate sensitivity. Well-designed developments should therefore have **neutral effects** with regards to landscape character.
- 7.2.38 The sites proposed for allocation at Cossington are relatively large in the context of the settlement. In terms of sensitivity, HS65 is low-moderate, whilst HS66 is moderate. Both sites are relatively flat, and with appropriate landscaping and screening, effects could be mitigated. Consequently, a **neutral effect** is predicted.

### General development

- 7.2.39 Aside from the allocated sites, development within the borough will be directed to the urban areas rather than greenfield / urban fringe sites. This ought to help protect the character of the countryside and its landscape qualities across much of the district. In particular, no allocations are made at the smaller villages and hamlets, and for some of the 'other settlements' such as Newton Linford, Woodhouse Eaves, Wymeswold and Burton on the Wolds. Given that these areas are sensitive to change, this is a positive approach.
- 7.2.40 A common theme throughout the Plan is the need to protect the character of the countryside including green wedges and Areas of Separation (of which new areas are proposed). This principle is first introduced in Policy LP1 (*Development strategy*) and built upon in Policy LP19 (*Landscape, Countryside, Green Wedges and Areas of Local Separation*) in particular. This policy provides a framework for the protection and enhancement of the Countryside and the maintenance of open space between settlements. There is also recognition that sympathetic change may be needed to support rural communities in terms of business diversification and exceptional housing development. Ensuring that rural communities are viable and support economic activity is important to the character of the countryside alongside the preservation and enhancement of the environment.
- 7.2.41 Other policies that support growth in rural locations (Such as LP16: *Rural economic development*) are unlikely to have negative implications for the landscape as it is made clear that growth must respect the intrinsic value of the countryside.
- 7.2.42 Policies that support biodiversity enhancement and open space creation ought to have synergies with Policy LP19; despite the focus being on other factors rather than landscape quality as such.
- 7.2.43 Overall, the planning policies within the Plan ought to ensure that **minor positive effects** are secured in relation to general development.

### Overall effects

- 7.2.44 The strategy generally directs growth away from the most sensitive locations in the Borough such as within Charnwood Forest and in the smaller settlements. Only a small amount of the landscape categorised as 'medium-high' sensitivity has been proposed for development, and none classified as 'high'.

- 7.2.45 Nevertheless, the strategy / site allocations will lead to a substantial loss of areas of green space and green fields at the urban fringes. In some locations, such as allocated sites within current urban areas, the sensitivity is low and therefore impacts on landscape and townscape are predicted to be neutral or positive. However, in others sensitivity is classed as moderate /moderate-high.
- 7.2.46 For most settlements, the effects are predicted to be **neutral** when considered along the Plan policies that seek to protect and enhance landscape, tree cover and open space. However, at other settlements, sensitivity is greater and / or the scale of development is such that residual negative effects will remain. These effects are mostly minor, but in Loughborough and Syston there is a degree of uncertainty, and so the effects are recorded as potentially significant.
- 7.2.47 In particular, development to the south west of Loughborough would encroach into the Charnwood Forest and presents the potential for **significant negative effects**. It is possible that such effects could be reduced, but site specific policies could help to ensure that this is the case. Likewise, allocations proposed at Syston add further development pressure in an area that is already being affected by substantial loss of countryside. The proposed site is also within a former Green Wedge and proposed Area of Local Separation.
- 7.2.48 With regards to general development, a **minor positive effect** is predicted as the Plan directs additional development away from the most sensitive areas as well as supporting appropriate development in the countryside. Policies that seek to improve Charnwood Forest and increase tree cover could also help lead to long term improvements in character in particular.

### **7.3 Biodiversity and nature conservation - *Protect and enhance biodiversity, habitats and species***

#### **Strategy / site allocations**

##### Leicester urban fringe (Glenfield / Thurmaston / Birstall /Syston)

- 7.3.1 The sites proposed to be allocated are within and adjacent to the Leicester Urban Area, including within Thurmaston and adjacent to the City boundary. There would also be substantial growth at Syston.
- 7.3.2 The sites are either brownfield or on greenfield land that is mostly agricultural in nature. There are no designated sites within close proximity to any of the sites and so impacts in this respect are unlikely. The large scale nature of the Syston site ought to provide the opportunity for strategic enhancement of green infrastructure, particularly as the current value appears to be limited. This would currently be driven through Policy LP22 (*Conserving and Enhancing Biodiversity and Geodiversity*). It would be beneficial to explore opportunities for strategic enhancements and set these out in a site specific policy
- 7.3.3 Overall, the effects in this location are predicted to be neutral / potentially positive if net gain is applied successfully.

##### Loughborough

- 7.3.4 The sites proposed to be allocated within the central areas of Loughborough are distant from designated sites of nature conservation importance. Most are also brownfield and not thought to have particular value for biodiversity. Therefore, provided that plan policies are applied relating to the need to protect and enhance biodiversity, then this element of the strategy is unlikely to have significant effects.
- 7.3.5 There are two large sites allocated to the south of Loughborough though. These are both within the defined area of Charnwood Forest, but do not contain wooded areas themselves as such. There are important features nearby though such as wooded areas within the Charnwood Forest including Mucklin Wood, and Beacon Hill, Hangingstone and Out Woods). These are SSSIs and ancient woodland.
- 7.3.6 The development sites will not lead to fragmentation of any habitat as such, but could certainly lead to a disturbance to species that use the wooded areas (noise, light, domestic animals, recreational pressure, and loss of supporting habitats). The potential for negative effects should be acknowledged, but there would remain substantial areas of agricultural land between the woodland and the proposed development sites, which should act as a buffer. The exception is Mucklin Wood, which is adjacent to the south Loughborough site (HS35). The potential for disturbance is therefore higher and there will be a need to ensure that there are suitable areas of green space between the developed area and this important habitat.
- 7.3.7 Plan Policy LP22 (*Conserving and Enhancing Biodiversity and Geodiversity*) seeks to ensure that effects on biodiversity are avoided and that net gain is secured. Furthermore, the Plan sets out the need for development to be informed by a masterplan and green infrastructure strategy.
- 7.3.8 These measures will help to ensure that negative effects are minimised. A clear infrastructure strategy should also help to generate positive effects in the longer term.

7.3.9 Overall, **neutral effects** are predicted.

#### Shepshed

7.3.10 The strategy involves substantial growth along the western fringes of Shepshed, which is adjacent to a range of important wildlife habitats. In combination with existing committed sites the entire length of the urban fringes to the west of Shepshed. Whilst it should be possible to avoid the complete loss of any important habitat, there is certainly potential for short term and longer term impacts.

7.3.11 For example, the allocated sites run adjacent to Black Brook, which could affect water quality and / or disturb species reliant upon the water environment. The allocated sites HS41 and HS48 are also adjacent to 'Shepshed Cutting' SSSI and several local wildlife sites consisting of wooded areas.

7.3.12 Local Plan policies do not make location specific mention of mitigation and enhancement measures, but there is a commitment to secure a collective biodiversity strategy to ensure that cumulative effects do not occur in this location as a result of development at sites HS39, HS41, HS42, HS44 and HS48. This should mean that significant negative effects can be avoided, and the residual impact could potentially be positive if ecological networks are strengthened. In the absence of specific measures though, a **minor negative effect** is predicted at this stage, to acknowledge the potential issues.

7.3.13 Provision of a buffer between the developable parts of the sites and the river corridor is important, as is the need to provide areas of recreation that take pressure off existing woodland areas.

7.3.14 Development to the south of Shepshed is adjacent to Newhurst Quarry SSSI, and could potentially affect habitats and species here as well. It will be important to apply Policy LP22 (*Biodiversity*) to ensure that such effects do not occur.

7.3.15 Overall, a **minor negative effect** is predicted. Plan policies and the need to secure net gain will minimise effects, but certain impacts may be unavoidable such as disturbance to habitats. In the longer term, positive effects could be generated if successful biodiversity strategies are implemented.

#### Service centres (Anstey, Sileby, Rothley, Quorn, Barrow-upon-Soar, Mountsorrel)

7.3.16 At Quorn, the one allocated site is not in a particularly sensitive location and negative effects are therefore unlikely taking into account the need to implement Policy 22 and to achieve net gain.

7.3.17 Other than the Watermead development area, sites proposed for allocation along the River Soar corridor (a Local Wildlife Site) at the service centres is limited. Negative effects on this important wildlife corridor are therefore unlikely.

7.3.18 At Anstey, Sheet Hedges Wood SSSI is within 900m from the boundary of site HS51. The threat from domestic animals is considered low given that their range (for example cats) is typically much lower than 400m. The effects in terms of disturbance is also considered unlikely given the buffer zone between the site and the SSSI. There are some hedges and trees on/around the site that could have some value, but there is no reason that these could not be protected and enhanced.

- 7.3.19 Bradgate Park and Cropston Reservoir SSSI is nearby to Anstey and likely to attract visitors from new development in Anstey (and further afield). However negative effects are unlikely as the park already receives 500,000 visitors each year and has a management plan in place. In addition the level of overall growth in this location is low.
- 7.3.20 Adjacent to site HS51 in Anstey is an area of priority habitat (woodland), which could be expanded as an element of enhancement / net gain. This is identified in policy LP3, which is a positive effect.
- 7.3.21 Overall, the effects of development in Anstey are considered likely to be neutral (or positive with suitable net gain).
- 7.3.22 At Sileby, the allocated sites do are not likely to have an effect upon designated sites. The majority of housing is proposed at one large site, which is agricultural in nature. The ecological value of the site is unlikely to be significant, and general planning policies ought to ensure that any issues are identified and dealt with. Therefore, neutral effects are likely (positive if successful net gain is implemented).
- 7.3.23 At Barrow-Upon-Soar, there is a mix of brownfield and greenfield land proposed as housing allocations. None of these sites are within close proximity to designated wildlife sites. The effects in this respect are therefore predicted to be neutral. The larger greenfield sites (HS54 / HS55) that are proposed are on agricultural land which does not appear to have notable wildlife value. Therefore, provided that boundary features such as hedgerows and trees are treated sympathetically, the effects are likely to be neutral. A requirement to achieve net gain should actually lead to local improvements given that value is currently low.
- 7.3.24 Overall, the effects in these locations are predicted to be **neutral** / potentially positive if net gain is applied successfully.

Other settlements (Queniborough / East Goscote / Rearsby / Hathern / Cossington)

- 7.3.25 It is likely that growth could be accommodated in each of the 'other settlements' without having significant effects on biodiversity. There are no major constraints associated with the site allocations in these locations, but several of the sites are adjacent to areas of woodland that could have local value for wildlife (for example at East Goscote and Hathern). The application of plan policies should help to minimise negative effects and potentially achieve enhancement.
- 7.3.26 Overall, the effects in this location are predicted to be **neutral** / potentially positive if net gain is applied successfully.

**General development**

- 7.3.27 In relation to other non-strategic development there are several policies within the Plan that will help to protect and enhance biodiversity.
- 7.3.28 In particular, Policy LP22 (*Biodiversity*) sets the framework for the consideration of ecology and geodiversity in new developments. As well as applying to the site allocations it will also apply to other development (e.g. windfall), and its intention to secure net gain is therefore a positive effect. Whilst positive, the policy does not mention the need to enhance linkages between ecological networks. The inclusion of a clause covering this factor would help to emphasise the importance of strengthening strategic corridors.

- 7.3.29 Policy LP23 (*Tree Planting*) adds additional benefits and states that a key part of net gain should be the consideration of an increase in wooded areas and tree cover.
- 7.3.30 Policy LP32 (*SUDs*) adds further consideration of wildlife by seeking SUDs that provide benefits for wildlife 'where possible'. This should also provide some minor benefits in combination with Policy LP22 (*Biodiversity*).
- 7.3.31 Whilst not specific to biodiversity, Policy LP19 (*Landscape, Countryside, Green Wedges and Areas of Local Separation*) which seeks to protect and enhance the countryside and 'green networks' is likely to have knock-on benefits in terms of the protection of biodiversity.
- 7.3.32 Several policies seek to achieve regeneration in Shepshed and Loughborough, which are positive strategies in terms of shifting the focus away from the urban fringe (for ad hoc developments).
- 7.3.33 There are also several policies that support rural diversification and tourism, but these are framed in the context of the strategy for Charnwood Forest (which seeks to protect and enhance its natural characteristics). It is therefore considered unlikely that development will lead to negative effects.
- 7.3.34 There are no other specific policies that relate to biodiversity, and other plan policies are not likely to have negative or positive implications. For example, policies that deal with heritage, design, community facilities and transport.
- 7.3.35 Overall the general development policies are predicted to have minor positive effects overall in relation to biodiversity and geodiversity

#### Overall effects

- 7.3.36 The effects related to the spatial strategy / allocations are mixed. For the most part, the effects are predicted to be neutral or potentially positive if development management policies are applied effectively. This includes for development at the service centres, 'other settlements', and the Leicester Urban Area.
- 7.3.37 Minor negative effects are likely in some locations in the short term due to disturbance associated with construction. In the longer term though, effects ought to be neutral or positive.
- 7.3.38 At Loughborough, the proximity to the Charnwood Forest could potentially give rise to minor negative effects, but there is a need for development to be informed by a green infrastructure strategy, which should neutralise effects.
- 7.3.39 At Shepshed, it is possible that significant negative effects could arise given that a large amount of development runs alongside Black Brook (a local wildlife site) and certain sites are adjacent to SSSIs. In recognition, the Plan identifies the need to secure a biodiversity strategy for the area to minimise negatives and support net gain.
- 7.3.40 On a borough-wide level **neutral effects** are predicted overall; reflecting the broadly neutral or minor positive effects at most settlements. Whilst there could be some minor negative effects in the short term (particularly at Loughborough and Shepshed), the need for development to be informed by green infrastructure / biodiversity strategies should mean that positive effects are achieved in the longer term. The need to achieve net gain should guide this process too.

7.3.41 In relation to other elements of the Plan, largely neutral effects are predicted. There are also some **minor positive effects** being generated through a focus on improvements in the Charnwood Forest and the need for biodiversity net gain.

#### **7.4 Water Quality - *Protect and improve the quality and quantity of the water in the Borough's surface and groundwaters.***

##### **Strategy / site allocations**

###### Leicester urban fringe (Glenfield / Thurmaston / Birstall / Syston)

7.4.1 The large site at Syston (HS6) is intersected by Barkby Brook. Development therefore has the potential to lead to pollution / sedimentation during construction phases. Provided that routine mitigation is implemented and SUDs are in place (in line with Policy LP32), then the effects are not likely to be significant. Furthermore, Policy LP22 (*Biodiversity*) seeks to ensure protection of water quality as it performs an important role for biodiversity.

7.4.2 The Watermead Regeneration Corridor involves support for employment provision in an area of waterbodies and on land that is at risk of flooding. This presents the risk of business activity affecting water quality through surface water run-off and drainage (which could be exacerbated in times of flooding). However, the uses are not likely to be particularly hazardous, and the policy also seeks to achieve environmental improvement, including specifically for water quality protection and enhancement. This ought to help mitigate potential negative effects, so the residual impact is likely to be **neutral** or only **minor negative effects**.

7.4.3 It is assumed that there is sufficient headroom at nearby waste water treatment plants to accommodate growth (or upgrades are possible).

###### Loughborough

7.4.4 Wood Brook runs through the large site to the southwest of Loughborough (HS37), and further along, allocated sites in the town centre are also adjacent to the brook where it is diverted underground. Development therefore has the potential to lead to pollution / sedimentation during construction phases. Provided that routine mitigation is implemented and SUDs are in place (in line with Policy LP32), then the effects are not likely to be significant.

7.4.5 Furthermore, Policy LP22 (*Biodiversity*) seeks to ensure protection of water quality as it performs an important role for biodiversity.

7.4.6 It is assumed that there is sufficient headroom at nearby waste water treatment plants to accommodate growth (or upgrades are possible).

###### Shepshed

7.4.7 There is a large amount of development proposed adjacent to Black Brook, which could see some short term impacts, particularly during the construction phase.

- 7.4.8 The currently open and rural nature would be replaced by built-up development which can increase run off likelihood into the watercourse also.
- 7.4.9 As a result **minor negative effects** are identified. Conversely a change in use from active agriculture could help to reduce nitrates (which are the main source of diffuse pollutants).

Application of Policy LP22 (*Biodiversity*) and Policy LP32 (*SUDs*) should both help to minimise water pollution as they seek to implement green infrastructure enhancements and contribute to Water Framework Directive objectives. Therefore, the overall impacts are likely to be **neutral** or **potentially positive** in the longer term.

- 7.4.10 It is assumed that there is sufficient headroom at nearby waste water treatment plants to accommodate growth (or upgrades are possible).

#### Service centres (Anstey, Sileby, Rothley, Quorn, Barrow-upon-Soar, Mountsorrel)

- 7.4.11 Sites proposed for allocation at Rothley, Barrow-Upon-Soar, Mountsorrel, Quorn and Anstey are not intersected or adjacent to watercourses, and so direct run-off of surface water pollutants and sediment into watercourses is unlikely. None of these areas are affected by groundwater protection zones either.
- 7.4.12 At Sileby, site HS65 is adjacent to Sileby Brook, and so the potential for negative effects exists (particularly during construction). However, it is expected that routine mitigation measures would be implemented to minimise risk at construction stage.
- 7.4.13 The need to implement SUDs to accord with Policy LP32 (*SUDs*) should also help to preserve water quality once the development is in place. The residual effects would be **neutral**.
- 7.4.14 The majority of the sites proposed for allocation are agricultural in nature, and so a change of use could potentially reduce the amount of nitrates that originate from farming practices. This would be a positive change given that the whole of Charnwood falls within a nitrate vulnerable zone. However, it is unclear the extent to which nitrate pollution occurs from these sites, and so the longer term **positive effects** are uncertain.

#### Other settlements (Queniborough / East Goscote / Rearsby / Hathern / Cossington)

- 7.4.15 The large site (HS68) at East Goscote is adjacent to Gaddesby Brook. Therefore potential for negative effects exists in terms of polluted surface water run-off and sedimentation. The effects are low though given the need for SUDs and construction management measures.
- 7.4.16 At Rearsby, Cossington, Queniborough and Hathern, the sites proposed for allocation are some distance away from watercourses and so neutral effects are likely in relation to pollution.
- 7.4.17 It is assumed that there is sufficient headroom at nearby waste water treatment plants to accommodate growth (or upgrades are possible).
- 7.4.18 Overall, **neutral effects** are likely.

7.4.19 Most of the allocated sites appear to be in agricultural use, which could result in a decrease in nitrate run off with a change in use. This could generate **minor positive effects** in the longer term, but there are uncertainties (given that the extent of current pollution from these sources is unknown).

#### General development

7.4.20 Most of the Plan policies are unlikely to have an effect in terms of water quality as they do not involve changes to land use, or are focused on other specific issues. The policies that are of most relevance are those that are discussed above in relation to the site allocations. This is Policy LP22 and Policy LP32, which mention the need to address water quality (*Policy 22*) and implement SUDs (*Policy 31*).

7.4.21 There is also specific mention of the need to protect and enhance water quality along the River Soar and Grand Union Canal corridors, which ought to offset any potential negative implications of increased water-based tourism.

7.4.22 In addition, policies which seek to protect open space, green infrastructure, implement increased tree coverage and enhance biodiversity should all have a positive in-combination effect in terms of water quality.

7.4.23 Requirements set out in Policy LP30 (*Sustainable Construction*) to achieve higher standards of water efficiency ultimately affects the demand for water, and this could help to better manage water resources and quality from the source (which is not within Charnwood, but nevertheless this is positive).

7.4.24 The SUE policies each seek to address water quality issues and contribute to enhancements. This should provide an additional focus on such issues in these locations

7.4.25 Overall, the Plan policies relating to general development are likely to have **minor positive effects**.

#### Overall effects

7.4.26 The effects of the strategy and site allocations are mixed. On one hand, development in certain locations has the potential to increase the risk of pollution and sedimentation in watercourses, particularly during construction. However, with application of Plan policies and other protective measures then these effects are likely to be **minor negative** or **neutral**.

7.4.27 In terms of the changes in land use that will occur, there could be increased incidences of pollutants being washed into drainage infrastructure. However, a change in use from agriculture is likely to lead to an overall reduction in diffuse pollution (which is linked to nitrates used in farming practices). The longer term effects of the Plan allocations is therefore uncertain, but potentially a **positive effect**.

7.4.28 Additional Plan policies set out general principles for the protection and enhancement of water quality, and so new development (both at allocated sites and generally) ought to be designed so that negative effects are avoided.

- 7.5 Flood Risk** – *Reduce the risk of flooding to existing communities and ensure no new developments are at risk.*

### Strategy / site allocations

#### Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

- 7.5.1 Some sites that have been allocated in the Leicester Urban Area are within Flood Risk Zone 2. Approximately 20ha of land if developed is at risk of Flood Risk Zone 2 consequences. Sites that are allocated near Barkby Brook are subject to Flood Risk Zone 3 and 3a, however this only affects a small portion of the allocated sites.
- 7.5.2 Policy LP30 (*Flood Risk Management*) ensures that development will be directed to areas with the lowest risk of flooding. Development should be concentrated in areas that are furthest away from the flood risk areas.

#### Loughborough

- 7.5.3 In Loughborough, the River Soar is responsible for discharging Flood Risk Levels of 2, 3 and 3a across a large portion of Loughborough.
- 7.5.4 The Devonshire Square Opportunity Site partly falls within flood risk zones 2, 3a and 3b.
- 7.5.5 Site HS30 Carillon Court Shopping Centre Derby Square falls fully within flood zone 3a. Of relevance is LP3, which states that “More vulnerable uses such as housing should be provided above ground floor level in areas of flood risk, provided it satisfies the exceptions test”.
- 7.5.6 Draft Policy LP31 (*Flood Risk Management*) manages the issue of development in Flood Risk Zone 3 adequately, however there is emphasis on development being directed away from high flood risk areas and allocating this site is conflicting with this policy.
- 7.5.7 Other allocated sites in Loughborough are either of minimal flood risk or not within areas of flood risk. Furthermore, Policy LP31 (*Flood Risk Management*) seeks to achieve a reduction in the rates of brownfield run-off rates if possible. This would lead to minor positive effects.
- 7.5.8 For the greenfield sites net run off will need to be maintained as a minimum to satisfy LP31 (*Flood risk management*). There is also a need to implement SUDs in-line with Policy LP32 (*SUDs*) to help manage flooding.
- 7.5.9 Site HS37 is a large site to the south west of Loughborough, which is intersected by areas of flood risk. However, it is expected that these would not be areas of built development.
- 7.5.10 **Minor positive effects** are predicted overall relating to the potential to improve (reduce) rates of run-off on brownfield sites. There is an element of uncertainty, as the ability to reduce run-off will depend upon factors such as viability and feasibility.

## Shepshed

- 7.5.11 One of the general principles of Policy LP31 (*Flood risk management*) is to avoid areas of greatest flood risk. This applies in the most part to the sites proposed for allocation in Shepshed; but some sites contain areas at risk of flooding.
- 7.5.12 The large site allocated along Tickow Lane (HS40) in Shepshed is within areas of Flood Risk as it is within close proximity to Black Brook River. The site is approximately 50ha in size and of that 25% of the site is within Flood Risk Zone of 2, 3 or 3a. This could potentially generate minor negative effects.
- 7.5.13 However, Policy LP31 (*Flood risk management*) states that development in Flood Risk Zone 3 will only be supported if there are several tests used to determine its safety and appropriateness. The size of the sites should also allow for areas at risk of flooding to be avoided and SUDs implemented in line with Policy LP32 (*SUDs*).
- 7.5.14 Overall, this should mean that the residual effect is **neutral**, but there is some uncertainty as a large amount of greenfield land is being developed along the Black Brook which could affect hydrology.

## Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar, Mountsorrel)

- 7.5.15 The sites proposed for allocation at Anstey, Rothley, Sileby, Mountsorrel and Barrow-upon-Soar are not within any Flood Risk zones, however it is worth noting:
- The site to the west of Loughborough Road in Rothley is adjacent to the River Soar and Cossington Lakes. To the west of the site is also flooding hazard caused by the Rothley Brook.
  - The sites within Sileby are adjacent to the Sileby Brook and River Soar. The majority of the sites in Sileby are not within a Flood Zone however the site located west of High Street in Sileby is bordering Flood Risk Zone 3.
  - Site HS55, Land north of Melton Road is in close proximity to Fishpool Brook, with associated areas of land in flood zones, 2, 3 and 3a.
- 7.5.16 In Quorn, the allocated site, located on the corner of Loughborough Road and the A6 is highly affected by Flood Risk Zone 2, 3 and 3a. If developed, approximately 3ha of the site would be at risk of flooding implications. Development on this site could result in a negative effect, but draft Policy LP31 (*Flood Risk Management*) may alleviate any development that could be at risk as it states that development in Flood Risk Zone 3 will only be supported if there are several tests used to determine its safety and appropriateness. Nevertheless, allocation of this site is against the general principles set out in LP31 (and indeed the NPPF) that suggest development should be located in areas of lowest risk.
- 7.5.17 Policy LP32 (*SUDs*) also states that development in areas at risk will need to have regard to Sustainable Drainage Systems (SuDS) which can contribute positively to managing flood development.
- 7.5.18 On balance, the residual effect is a **minor negative**.

#### Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

- 7.5.19 Most of the sites proposed for allocation in other settlements do not fall within areas of flood risk, though some sites are adjacent to flood zones. The sites are mostly greenfield sites and there is a need to ensure no net increase in surface water run-off.
- 7.5.20 Sites proposed for allocation in Queniborough are not within close proximity to a flood zone.
- 7.5.21 The site in Cossington along Humble Lane is adjoining Flood Risk Zone 2, 3 and 3a. This site will need to have regard to proposed Policy LP31 (*Flood Risk Management*) which suggests that development should be located in areas of low flood risk and any risk mitigated.
- 7.5.22 Sites in East Goscote, Hathern and Rearsby are not within areas of flood risk nor are they adjoining flood prone areas.
- 7.5.23 Overall, this should mean that the residual effect is **neutral**.

#### **General development**

- 7.5.24 Several of the Plan policies are likely to have a **minor positive effect** in terms of flood resilience and management. In particular, Policy LP31 (*Flood Risk Management*) states that development should be in areas of low risk of flooding, but allows for exceptions to this. The policy allows for development in flooded areas so long as:
- there is a flood assessment undertaken
  - exception Tests are met
  - development in Flood Risk Zone 3a is of a 'less vulnerable' use
  - development must consider cumulative impact of proposals on local areas susceptible to flooding, and
  - development must ensuring appropriate mitigation measures are in place
  - major development must incorporate sustainable drainage systems, where appropriate
  - ensuring that the natural and major watercourses are suitably managed to reduce flood risk.
- 7.5.25 The policies suggest that development should be placed in areas with the lowest risk of flooding. If this approach cannot be taken, major developments in Flood Zone 1, 2 and 3 are to be accompanied by flood risk assessments, and development will only be accepted in Flood Zone 3a if development is for a 'less vulnerable use'. If further residential development occurs, it should be situated in areas of low flood risk.
- 7.5.26 This should ensure that any additional development (beyond the allocated sites) is directed to the least sensitive locations. The requirement for greenfield sites to achieve no net increase in flood risk should ensure that neutral effects are achieved.
- 7.5.27 There is also a specific mention of the need to achieve a net decrease in surface water run-off on brownfield sites. This would help to achieve **minor positive effects**.

7.5.28 Policy LP32 (*SUDs*) is also of particular relevance as it requires *SUDs* to be incorporated into new development. This should have **minor positive effects** too.

7.5.29 Other plan policies of relevance are those that protect and increase land uses that can help to manage flood risk such as retaining countryside uses, biodiversity habitats and open space.

#### **Overall effects**

7.5.30 Generally, the sites that have been allocated are either not within a flood risk zone or slightly adjoining a flood risk zone.

7.5.31 However, there are some sites where areas of flood risk intersect the site. The site in Quorn is heavily affected by flood risk also. There will be a requirement to mitigate the effects of flooding in these locations, but it is expected that Policies LP31 (*Flood risk management*) and LP31 (*SUDs*) would minimise effects so that only minor negative effects remain.

7.5.32 There are some general development policies in the Plan that will help to promote flood risk management and adaptation to climate change. In particular, encouraging a net decrease in run-off from brownfield sites should positive effects. The effects are only likely to be minor given that the majority of development is anticipated on greenfield land.

7.5.33 On balance, the effects of the Plan are predicted to be **neutral** from a borough-wide perspective.

## **7.6 Land - Protect the Borough's soil resources.**

7.6.1 Grade 2 agricultural land is considered very good quality. Land identified within this category has the ability to support a wide range of agricultural and horticultural crops. Grade 3 agricultural land is of good to moderate value, and used when more demanding crops are grown. To protect the Borough's soil resources, it would be most beneficial to develop on land that is of low quality agricultural value or existing urban areas.

#### **Strategy / site allocations**

7.6.2 For this analysis Agricultural Land Classifications (ALC) have been referred to across the borough. There are five different types of ALC, reflected on a scale of Grade 1 to Grade 5. Grade 1 being the best quality, and Grade 5 the poorest quality. The best and most versatile agricultural land are in Grades 1, 2 and 3a of the Agricultural Land Classification. The majority of the allocated sites located in Charnwood are within areas of Grade 2 or Grade 3, with a small portion of sites located in existing urban areas and Grade 4. One positive effect is that no sites are allocated within areas of best quality agricultural land (Grade 1).

7.6.3 It is unclear whether the Grade 3 sites are 3a or 3b, but evidence suggests there is a mix of these grades and most agricultural land appears to be in active use, so any loss is negative.

### Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

- 7.6.4 There will be approximately 50ha of Grade 2 Agricultural Land and 20ha of Grade 3 Agricultural Land loss in the Leicester Urban Area. The remaining sites that have been proposed for allocation are within existing urban areas. It should be noted though that the actual developable area will not include all of this area, so it might be possible to retain the soil value on a proportion of these sites.
- 7.6.5 Proposed Policy LP30 (*Sustainable Construction*) supports sustainable development that protects environmental resources including air quality and agricultural land. However, this will do little to avoid the loss of resources on land that is already proposed for allocation.
- 7.6.6 The main loss in these areas is Grade 2, despite there being Grade 3 land available. Therefore, **negative effects** are predicted in this respect.
- 7.6.7 Approximate loss of agricultural land (including all of site area):
- Grade 2 – 50ha
  - Grade 3 – 20 ha

### Loughborough

- 7.6.8 Almost all the sites allocated in this area are in either Grade 2 or Grade 3 Agricultural Land.
- 7.6.9 Approximately 30ha of Grade 2 land would be affected, of which the majority would be at site HS36 near Woodthorpe.
- 7.6.10 Approximately 45 ha of Grade 3 land would be affected, with the majority being located at the Nanpantan Lane site (HS37).
- 7.6.11 The Loughborough Science is almost entirely Grade 3 land, and so a further 70ha of land will be affected.
- 7.6.12 Estimated loss of agricultural land:
- Grade 2 – 30 ha
  - Grade 3 – 120 ha

### Shepshed

- 7.6.13 The majority of allocated sites in Shepshed are located in areas of either Grade 2 or Grade 3 Agricultural land. The site located on the corner of Tickow Lane and Ashby Road is entirely within Grade 2 Agricultural Land of approximately 10.9ha in size. The site is not surrounded by existing urban development. There are alternative sites that are not Grade 2 land, and so the principle of avoiding the best and most versatile land (hierarchically) is not achieved. However, most of the Grade 3 sites have already been allocated, and those which have not exhibit other constraints.
- 7.6.14 Proposed Policy LP30 (*Sustainable Construction*) supports sustainable development that protects environmental resources including air quality and agricultural land. However, this will do nothing to avoid the loss of resources on land that is already allocated.

7.6.15 Estimated loss of agricultural land:

- Grade 2 – 35.2ha
- Grade 3 – 89.3ha

Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar)

7.6.16 Site HS51 at High Leys / Manor Farm in Anstey is located within Grade 3 agricultural land and results in a loss of 5.8ha.

7.6.17 The site proposed for allocation in Rothley at Woodcock Farm is approximately 6.5ha of Grade 2 and 1.5ha of Grade 4 Agricultural Land.

7.6.18 The sites located at Sileby total approximately 11ha of Grade 3 Agricultural Land and 0.5ha of Grade 2 Agricultural Land.

7.6.19 The site allocated in Quorn is 5.6ha of Grade 2 Agricultural.

7.6.20 At Mountsorrel, the site proposed for allocation is not agricultural land.

7.6.21 At Barrow-upon-Soar, the sites proposed for allocation consist of a mixture of grade 2 and grade 3 agricultural land totaling 14 ha (5ha Grade 2, 9ha Grade 3).

7.6.22 Proposed Policy LP30 (*Sustainable Construction*) supports sustainable development that protects environmental resources including air quality and agricultural land. However, this will do nothing to avoid the loss of resources on land that is already allocated. The main loss in these areas is Grade 2, despite there being Grade 3 land available. Therefore, negative effects are predicted in this respect.

7.6.23 Estimated loss of agricultural land:

- Grade 2 – 17.6 ha
- Grade 3 – 25.8 ha

Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

7.6.24 All sites located in these settlements are of Grade 2 and/or 3 Agricultural Land.

7.6.25 At Queniborough development will lead to a loss of 12.3ha of Grade 3 agricultural land.

7.6.26 Cossington will lose 2.9 ha of Grade 2 and 3.9 ha of Grade 3 agricultural land.

7.6.27 Sites in East Goscote and Rearsby will lose approximately 14.5 ha Grade 2 Agricultural Land.

7.6.28 In Hathern the sites are within Grade 3 Agricultural Land with a total loss of approximately 4.6 ha.

7.6.29 Estimated loss of agricultural land:

- Grade 2 – 21 ha
- Grade 3 – 20.8 ha

## General development

- 7.6.30 Policy LP30 (*Sustainable Construction*) seeks to protect best and most versatile agricultural land. This should help to ensure that additional development is directed away from resources, having a minor positive effect.
- 7.6.31 Other elements of the Plan that should ensure additional development is located away from areas of valuable soil resources are as follows:
- LP1 (*Development Strategy*) seeks to make efficient use of land and limits growth our of settlement boundaries.
  - Protecting existing employment spaces (Policy LP12) will reduce pressure on greenfield land / agricultural land.
  - Proposed Policy LP16 (*Rural economic development*) supports farm diversification and the rural economy more generally, which should help to keep agricultural practices viable (thereby protecting the land from development pressure).
  - Proposed Policy LP19 (*Landscape, Countryside, Green Wedges and Areas of Local Separation*) seeks to protect the countryside and landscapes, of which many will involve agricultural land.
- 7.6.32 These factors are all positive. However, given that the majority of growth will be associated with the SUEs and the allocations, the influence of these policies on soil use are fairly limited. Therefore, only **minor positive effects** are predicted.

## Overall effects

- 7.6.33 In total there will be a loss of approximately 153.8ha Agricultural Land Grade 2 land, 305.9ha Agricultural Land Grade 3 land. The Plan policies are unable to mitigate this loss as once allocated land has been developed for housing or employment this is permanent.
- 7.6.34 This loss not likely to be significant in terms of the contribution the land makes to the soil resources and agricultural output in the wider region. However, a loss of at least 450 ha of best and most versatile agricultural land is certainly a significant negative effect in terms of a permanent loss of resources (which could become more important in the future should there be an increased need for self-sufficiency).
- 7.6.35 The plan does seek to protect further loss of agricultural land and supports rural diversification, which is a **minor positive effect**. However, the **significant negative effects** still remain.
- 7.6.36 It should be noted though that the need to release substantial land for housing and employment makes it extremely difficult to avoid significant effects. Furthermore, other spatial strategies would also be likely to lead to significant loss of soil resources.

## 7.7 Air quality - Improve local air quality

### Strategy / Site allocations

7.7.1 Air Quality Management Areas (AQMA) are designated areas where priority action is required to meet local air quality objectives. The area may be a few streets or larger parcels of land. The Local Air Quality Management (LAQM) Final Action Plan reports on air quality monitoring and sets out the Boroughs improvement actions for air quality. There are several relevant AQMA's within Charnwood, particularly at Loughborough and Syston. There is another AQMA located in Mountsorrel, but this relates to particulate matter from the quarry. A final AQMA is located at Great Central Railway, with a specific focus on sulphur dioxide. This area is a railway engineering shed and is unlikely to be affected by increased development in the Loughborough area.

#### Loughborough

7.7.2 In Loughborough there are two AQMA's. The first AQMA covers residential areas along the main arterial routes through Loughborough. This area was declared in 2001 due to road traffic emissions. The several major routes include the A6004, Warwick Way to the north and Shelthorpe Road to the south. The strategy involves an additional 1,945 dwellings at Loughborough and 2,074 at Shepshed. The traffic generated from these developments are most likely to contribute to air pollution given that they will involve traffic along nearby routes (though traffic from commuting farther afield will also contribute).

7.7.3 Approximately 1000 dwellings are proposed in the urban area itself, with some located near Leicester Road and Ashby Square. An increase in traffic in these areas may have a negative impact on air quality. Several sites will need to gain access directly onto affected routes, which can result in an increase in traffic and emissions. The good accessibility to services, public transport and jobs in the central areas should help to reduce any increase in traffic though. Another issue for several sites proposed for allocation will be their proximity to the AQMA. This will increase the number of residential properties that are affected by poor air quality, which is a minor negative effect. It will be necessary for such developments to be designed to mitigate exposure to air quality and to introduce positive measures such as street trees and other urban greening.

7.7.4 The larger sites for allocation in Loughborough that are further south are not within proximity to existing AQMA's. However, car trips will be generated and these will undoubtedly access affected roads such as the A6004 and the A512.

7.7.5 In addition, the Loughborough Science Park could act as a major attractor of traffic from across the borough and further afield.

7.7.6 The traffic associated with the proposed strategy will likely worsen air quality, which is a negative effect. This could delay the potential revocation of the AQMA, which has been mooted given that there have been no recorded exceedances in pollution levels following the implementation of the inner relief road. It is likely that air quality will also continue to be positively affected by cleaner emission vehicles. These factors should help to ensure that an increase in traffic can be managed and that significant effects can be avoided.

7.7.7 The Local Plan itself also seeks to minimise impacts.

- 7.7.8 For example, proposed Policy LP30 (*Sustainable Construction*) states that new development that protects environmental resources including local air quality will be supported. Whilst this is beneficial, there is no mention of mitigation for new development that will be affected by air quality. This would be a useful addition.
- 7.7.9 Local Plan Core Strategy Policy CS22 seeks to ensure that development within the West of Loughborough Sustainable Urban Extension considers appropriate measures to mitigate any noise and air quality impacts from the M1 motorway which is located directly to the west of the SUE. This will have a minor positive impact on development within this area.
- 7.7.10 Policy LP1 (*Development strategy*) encourages increased walking and cycling, whilst proposed policy LP3 (*Housing sites*) requires the proposed site allocations to maximise potential to access sustainable forms of transport.
- 7.7.11 Overall, the Plan is predicted to have **minor negative effects** in this location with regards to air quality.

#### Shepshed

- 7.7.12 In Shepshed there will be a large increase in development, which presents the risk of impacting air quality in the town centre and also on routes towards the M1/Loughborough. This is a **minor negative effect** as significant worsening of air quality is unlikely.
- 7.7.13 Monitoring locations at Ashby Road Central and Cow Hill suggest that air quality has improved in Shepshed over the last 10 years, and the average concentration of nitrogen dioxide is some way from the objective/target levels. Further improvements in emissions reduction from vehicles should help to reinforce these trends. However, careful monitoring will be required to ensure that the large amounts of development in both Shepshed and Loughborough do not contribute to a worsening in these areas.
- 7.7.14 No development is proposed along key routes and so increased residential exposure to poorer air quality would not be likely to occur.

#### Service centres and 'other settlements'

- 7.7.15 Other localities within Charnwood are not within AQMA areas and are not at risk of exceeding air quality objective targets. The scale of growth involved will not lead to notable impacts in terms of pollution, and for the most part, there is access to alternative modes of transport that could help manage new development.
- 7.7.16 However, it is likely that growth in certain settlements will lead to increased trips into areas that are affected by air quality issues, so a contributing factor is likely. These issues are discussed above for Loughborough, Syston / Leicester, and Shepshed.
- 7.7.17 In summary, development at Rearsby, East Goscote, Queniborough and Sileby could all lead to increased trips through the AQMA at Syston. All of the proposed growth in the Leicester Urban Area is also likely to contribute to pollution along trips into Leicester City itself, which is a **minor negative effect**.

## General development

- 7.7.18 General development that occurs within proximity to AQMA's should have regard to the potential cumulative effects on air quality within the area.
- 7.7.19 Proposed Policy LP30 (*Sustainable Construction*) will support development that protects air quality; as well as seeking mitigation measures to be secured for development in or adjacent to AQMAs.
- 7.7.20 A number of other Plan policies should also contribute towards the protection and enhancement of air quality in relation to general development. This includes:
- Proposed Policies LP12 (*Meeting employment needs*), LP33 (*Sustainable transport*), which seek to promote walking, cycling and increased use of public transport. In particular Policy 34 (*Local and strategic road network*) requires a substantial proportion of spaces at large car parks to provide for electric charging points. This will support a shift towards electric cars, which could be a **significant positive effect** in the longer term.
  - Policy LP34 also seeks to reduce congestion, which is positive in terms of managing air quality.
  - Policies LP22 (Biodiversity), LP23 (*Tree planting*), LP25 (*Open Spaces, Sport and Recreation*) which seek to increase tree cover and enhance green infrastructure, which can help to regulate air quality.
- 7.7.21 These are positive policies that should help to guide proposed site allocations as well as general development that comes forward.

## Overall effects

- 7.7.22 With regards to the spatial strategy and proposed site allocations, a concentration of development in Loughborough and Shepshed is likely to have negative effects on air quality. However, this would be offset by other improvements in air quality such as low emissions vehicles. The Plan policy provides substantial support for such measures too.
- 7.7.23 The picture is similar for the AQMA in Syston and into Leicester, which is likely to be impacted by substantial new development in this area. In the longer term, the A46 expressway could help to alleviate traffic along these routes though.
- 7.7.24 Overall, a **minor negative effect** is predicted.
- 7.7.25 Policies within the Plan include support and encouragement for sustainable construction and sustainable transport, which will help to mitigate impacts. A strong focus on facilitating electric vehicles is also included, which could have a **significant positive effect** in the medium to long term by enabling an uptake and increasing the attractiveness of such options. There is uncertainty involved though, as consumer behaviour will also be a major contributing factor.
- 7.7.26 In terms of exposure to air quality and the impacts upon human health, the plan requires development within or adjoining an AQMA to secure appropriate mitigation measures, which should help to ensure that new development is resilient.

**7.8 Climate change - Reduce the impacts of climate change and reduce greenhouse gas emissions.**

**Strategy / site allocations**

- 7.8.1 With regards to climate change resilience, development in any location ought to provide opportunities to introduce adaptive measures such as green infrastructure, design for natural cooling in buildings and SUDs. In this respect, the spatial strategy and site allocations are unlikely to have any particular effects with regards to resilience. The benefits are more likely to arise from site specific policies or general development management policies.
- 7.8.2 One area where climate change resilience is factored into the strategy though is the avoidance of areas of flood risk for almost all of the site allocations. There are also additional plan policies that seen to manage flood risk. There is an intention to ensure no net increase in surface water run-off, which should ensure neutral effects in this respect with regards to the site allocations.
- 7.8.3 In terms of negative effects, the loss of greenfield land on the fringes of settlements can contribute to an urban heat island effect. The loss of substantial amounts of land around and in-between Shepshed and Loughborough (i.e. new allocations, commitments and SUEs) could lead to a loss of the cooling effect of green space, and add additional homes / heat generating land uses. Other plan policies should help to minimise these effects such as LP30 (*Sustainable Construction*), which seeks to combat the heat island effect by introducing green infrastructure features. There will need to be a strong application of this policy to ensure that the net effect of development is not negative in this respect.
- 7.8.4 In other parts of the borough such as at the service centres and ‘other settlements’, the potential for this phenomenon is likely to be lower given the smaller extent of the built up areas / greater amount of surrounding green space, and the lower amount of growth proposed.
- 7.8.5 With regards to greenhouse gas emissions, these are affected by overall levels of growth as well as the distribution and quality of development.
- 7.8.6 In terms of growth, the proposed housing and employment land is not significantly greater than what might come ahead in the absence of the plan. Therefore, emissions are likely to remain at a similar level.
- 7.8.7 Location can however, lead to differences in the amount of emissions from transport, and certain locations or types of sites (larger mixed-use with demands for heat) may also be more likely to support decentralised energy schemes.
- 7.8.8 The strategy focuses a large amount of housing growth in Loughborough/Shepshed and the Leicester Urban Area. These locations have generally good access to jobs, services and public transport. Therefore, new development should be less likely to generate long car trips (and associated emissions). The strategy also directs growth away from smaller villages and hamlets, meaning that most future growth will not take place in areas that are more reliant on cars (thereby limiting further emissions from transport).
- 7.8.9 Though some of the site allocations are not ideally located in terms of services and transport links, there are plan policies that ought to ensure that these factors are addressed. For example, proposed Policy LP33 (*Sustainable Transport*) requires

development to be within 400m of public transport stops, and new routes secured if necessary. This should help to ensure that emissions as a result of car transport do not rise.

- 7.8.10 With regards to employment activities, there is a focus on industrial / warehousing. Whilst this follows the identified needs and growth sectors, it is likely to lead to an increase in emissions associated with freight.
- 7.8.11 There are no provisions to implement or connect to decentralised energy schemes for any of the proposed sites. Therefore, Policy LP30 (*Sustainable construction*) will be relied upon to achieve a reduction in emissions and to explore whether such schemes are feasible. There is therefore a question mark over whether or not such improvements will be achieved for the larger strategic site allocations. A more proactive approach would be to identify opportunities and require strategic development areas to implement schemes. It would be beneficial for the policy to require that the potential for renewable energy schemes is at least explored.
- 7.8.12 There is a mention of emissions reduction in the SUE policies too, but this is not a firm requirement. At the very least, large scale developments ought to demonstrate that emissions reductions are not feasible or would make schemes unviable (rather than simply demonstrating that measures have been considered).
- 7.8.13 Sileby and Shepshed and Quorn sites fall within areas that have low-medium areas of wind opportunity.

#### General development

- 7.8.14 In relation to other forms of development and at non-allocated sites, the Plan sets out a range of policies that are of relevance to climate change resilience and mitigation. In terms of reducing travel and encouraging sustainable modes of transport the following policies are beneficial:
- LP12 (*Meeting employment needs*) supports employment locations that reduce the need to travel;
  - LP16 (*Rural economic development*) supports improvements to electronic communications networks in less accessible locations;
  - Policies LP14 (*Regeneration of Loughborough*), LP15 (*Regeneration of Shepshed*) and LP17 (*Town centres and retail*) each promote the regeneration and use of Loughborough and Shepshed town centres. As accessible locations, this should help to reduce reliance on out-of-town locations.
  - Policy LP25 (*Open Spaces, Sport and Recreation*) seeks to ensure local access to open space and recreation, which would reduce the need to travel to access such facilities.
  - Policy LP33 (*Sustainable transport*) seeks to achieve a shift to sustainable modes of transport by encouraging the use of public transport, walking and cycling;
  - Policy LP34 (*Local and strategic road network*) puts sustainable transport improvements first in terms of mitigating impacts on road networks.

- 7.8.15 In combination, these policies are predicted to have **minor positive effects** with regards to a reduction in greenhouse gas emissions. Whilst they are beneficial policies, they are similar to the existing policy framework and unlikely to lead to a radical change in travel behaviour.
- 7.8.16 With regards to energy and resource use, there are two policies within the Plan of most relevance. Policy LP30 (*Sustainable Construction*) seeks to achieve a reduction in carbon emissions and encourages development to do so by going beyond building regulations (especially in respect of water usage). Whilst this is a positive stance, it cannot be guaranteed that developments will deliver the energy efficiency and carbon savings that are sought. For this reason, the effects are not considered to be significant.
- 7.8.17 Policy LP29 (*Renewable and low carbon energy installations*) mirrors national policy and is therefore unlikely to have significant effects. However, by identifying areas that are suitable for wind energy, this gives developers clarity as to which areas are likely to gain support. This is a more proactive approach and should therefore encourage more applications for energy schemes, which is a minor positive effect.
- 7.8.18 With regards to climate change resilience in general there are several policies that encourage or require improvements to green infrastructure (which can help with urban cooling, habitat resilience, flood risk) and also flood risk specifically:
- LP2 (*High quality design*) sets out a general commitment to climate change adaptation;
  - Policies LP20 (*Charnwood Forest and the National Forest*) and LP23 (*Tree coverage*) seek to increase tree planting, which has benefits in terms of adaptation;
  - Policy LP22 (*Biodiversity*) requires a net gain in biodiversity, which ought to have knock-on benefits in terms of resilience;
  - Policy LP31 (*Flood risk management*) mirrors national flood management policy;
  - Policy LP32 (*SUDs*) sets out the need to implement SUDs. Whilst positive, it is not a significant departure from the current policy framework;
- 7.8.19 In combination, these policies are predicted to have **minor positive effects** in terms of climate change adaptation. The effects could potentially be significant in the longer term depending upon the nature of habitat enhancements, the location and scale of tree planting, and the application of design standards to ensure that new development is resilient to anticipated changes in climate.

### Overall impacts

- 7.8.20 The Plan is predicted to have mixed effects.
- 7.8.21 With regards to climate change resilience, the release of large development sites could potentially lead to negative effects in terms of a heat island effect in Loughborough and Shepshed in particular. However, a range of policies exist that should help to ensure these effects are mitigated. Furthermore, there are general policies that apply to all development that should help to increase the amount of

green infrastructure across the borough and manage flood risk. On balance, the effects are therefore likely to be **neutral**, or potentially **minor positives** in the longer term.

- 7.8.22 With regards to climate change mitigation, the Plan strategy is predicted to have broadly neutral effects. The exception is for the approach to employment, which focuses on sectors that can increase greenhouse gas emissions.
- 7.8.23 There are a range of supporting Plan policies that seek to achieve reductions in emissions, and these are likely to be successful where firm requirements are made (such as the need to deliver higher standards of water efficiency). The majority of new development that comes forward through the SUEs and the site allocations ought to be of a higher standard than might otherwise be the case, but this depends upon developers responding to the Plan policies proactively.
- 7.8.24 Other carbon emissions savings could be achieved through the Plan's focus on sustainable transport and by identifying locations suitable for wind energy schemes.
- 7.8.25 On balance, the Plan is likely to lead to a reduction in carbon emissions (i.e. the positive measures outweigh the increases in emissions that could occur due to the strategic approach to employment), which is a **minor positive effect**.

## **7.9 Historic environment - *Conserve and enhance the historic environment, heritage assets and their settings.***

### Leicester urban fringe (Glenfield, Thurmaston, Birstall, Syston)

- 7.9.1 Effects of development in Thurmaston / Birstall are predicted to be **neutral**. The sites are either industrial in nature, or on the edge of established housing estates. Neither contains important heritage assets, nor do they contribute positively to the character of the settlements.
- 7.9.2 There is a site allocated within the urban area of Syston in the Conservation Area. Whilst this is in a central location in the Conservation Area (and is adjacent to listed buildings), the buildings and uses on this site are currently not in keeping with the character of the Conservation Area. Development on the site therefore has the potential to enhance the built environment if sensitively designed. There is no site specific policy but policies LP2 (*High Quality Design*) and LP24 (*Heritage*) would be applied, which should ensure that development is in keeping with the character of the surrounding areas; making use of materials and architecture that contribute positively to the townscape. **Minor positive effects** are predicted.
- 7.9.3 A large site is proposed on the urban fringes of Syston which contains areas of archaeological interest. There is a requirement for development here to be informed by a heritage strategy, which would presumably involve the measures that would be required to address archaeological issues. In this respect, a **neutral effect** is predicted.
- 7.9.4 There are no other heritage assets in close proximity to this large site, though the settlement of Barkby is nearby (which contains several heritage assets and is characterised by a countryside setting. The North East of Thurmaston (SUE) already introduces significant growth in this location though. Additional growth at Syston is not likely to lead to additional significant effects, but does further reduce areas of countryside in this location (which are an important feature). The Plan responds to

this potential issue by requiring development to be informed by a heritage strategy. Therefore, **neutral effects** are predicted.

- 7.9.5 At Glenfield, the sites proposed for allocation to the south of the Leicester Western Bypass are not within close proximity to any designated heritage assets, or are there any buildings identified for their local value. In this respect, effects are **neutral**. However, the proposed site HS5 (Land at Gynsill Lane & Anstey Lane) overlaps with an area of archaeological interest. It is recommended that a policy clause is included as part of Policy LP24 (*Heritage*) that deals with this matter.

#### Loughborough

- 7.9.6 There are several sites that fall within or adjacent to the Conservation Area and/or contain listed buildings.
- 7.9.7 At some sites, it ought to be relatively easy to avoid harm to the historic environment, and perhaps achieve enhancement (for example, 45-54 Pinfold Gate falls within a site option, but this frontage could be retained and the surrounding built environment improved).
- 7.9.8 There are sites adjacent to Conservation Areas that do not add to their character, and redevelopment ought to improve the built environment (for example, site options at Lemyngton Street, Land at True Lovers Walk / Frederick Street, Station Avenue, Leicester Road/Aumberry Gap). These are **minor positive effects**.
- 7.9.9 At other sites though, there could be potential **negative effects** on heritage that are difficult to avoid (for example; Rosebury School site - which could involve the loss of a listed building, or Land off Leicester Road – which could change the open nature of Loughborough Chapels). The Plan policies that seek to secure high quality design and protect heritage ought to help manage negative effects, but there are no site specific measures identified.
- 7.9.10 Two large sites are proposed to the south of Loughborough, both of which are in close proximity to a number of heritage assets.
- 7.9.11 In the immediate vicinity to the sites is Moat House Grade II Listed Building (Site HS36) and Reynalls Grade II listed buildings (site HS35).
- 7.9.12 The Reynalls building sits within a small residential area (Woodthorpe) and is surrounded by newer buildings that are not in keeping with its character. New development on a large site would not be immediately visible, and so in this respect no effects are predicted. Though the approach to Woodthorpe is somewhat open in nature and adds to the 'rural' feel of this settlement, it is not considered to be integral to the Reynalls building, and so **neutral effects** are predicted.
- 7.9.13 The Moat House Building has an open countryside setting, but this is unlikely to be affected directly by development as it is very well screened. It is currently at the edge of the settlement area, which reflects its original use as a Park Keepers lodge. Large scale new development will mean that it no longer retains this setting.
- 7.9.14 Outwoods Farmhouse and Buildings are Grade II buildings at the edge of the Charnwood Forest. An open / agricultural setting is important. A large-scale development to the north east will reduce this open setting somewhat, but significant areas of open space will remain. Therefore, any impacts would be minor. General

plan policies (LP24 "*Heritage*") ought to ensure that negative effects upon the setting of this asset are avoided.

- 7.9.15 A smaller site is proposed for development (HS33) which is adjacent to a Grade II building (Burleighs Farmhouse). This is the last area of open green space in the area, but it does not have a significant connection to the farmhouse as such. Therefore, the impacts would not be expected to be significant. Overall, **minor negative effects** are predicted.

#### Shepshed

- 7.9.16 The effects on heritage assets from expansion at Shepshed would not be anticipated to be significant, given that there are very few designated heritage assets, locally important assets or potential archaeological remains at the urban fringe. Therefore, **neutral effects** are predicted.
- 7.9.17 Plan policies that support high quality design should help to ensure that the effects on townscape are minimised.

#### Service centres (Anstey, Sileby, Rothley, Quorn)

- 7.9.18 At Anstey, there is a site proposed for allocation the west of the settlement (HS51). This runs adjacent to the Conservation Area and is also within close proximity to several Grade II Listed Buildings. There has already been modern housing built nearby to the listed assets on 'The Green', and so the principle of development is established. An open setting still remains though, and so new development nearby has the potential to compound the changes made in this area. However, the site is relatively well screened, so effects would not be predicted as significant.
- 7.9.19 This site (HS51) also overlaps with an area of archaeological interest.
- 7.9.20 One smaller site is proposed for allocation partly within the Conservation area itself, but this involves relatively modern buildings that do not contribute positively to the character of the built environment. Development is therefore likely to have **neutral** or **positive effects** (if design is high quality according to Policy LP2).
- 7.9.21 At Rothley, a relatively large land allocation is made to the east, which is adjacent to a listed Grade II Barn at Woodcock Farm. The heritage asset has already been affected by modern development; detracting from its original setting.
- 7.9.22 Development at the proposed site would not lead to a direct loss of the asset, but the character of the surrounding open land would change further (i.e. there would be no remaining evidence of an agricultural setting to the barn).
- 7.9.23 There is no site specific policy that deals with these issues, but policy LP24 (*Heritage*) in particular will be relevant. This policy seeks to avoid negative effects upon heritage assets and their setting. The key issue related to this site is whether 'less than substantial harm' would occur (i.e. a minor rather than a significant negative effect). Given that the site is allocated there is a presumption that this would be the case. The existing changes to the built up area are also pertinent, and so only **minor negative effects** are predicted.
- 7.9.24 At Quorn, a relatively large site is allocated outside the main settlement, but whilst fairly close to a Grade II listed building (One Ash), it is not likely to have a significant

effect. One Ash is very well screened, is set back considerably from the road, and remains surrounded by open space. Therefore, **neutral effects** are predicted.

7.9.25 At Sileby, the larger sites outside of the settlement are unlikely to have effects on heritage assets as they are not within close proximity or identified as being of local importance. There are smaller sites in the Conservation Area too, but these are of poor quality and their development will not have adverse effects on the character of the area (in fact there should be enhancement with the application of high quality design as per Policy LP2). Uncertain **minor positive effects** are recorded.

7.9.26 At Barrow-upon-Soar, proposed development locations are not constrained by any known historic features or designated assets. Therefore, **neutral effects** are predicted.

7.9.27 The site proposed for allocation in Mountsorrel is small scale and is not in a sensitive location. Therefore **neutral effects** are predicted.

Other settlements (Queniborough / East Goscote / Rearsby / Hathern / Cossington)

7.9.28 Both site allocations in Queniborough fall within areas of potential archaeological interest. There are no policies in the Plan that addresses the potential effects on areas of archaeological interest. Though it is expected that such issues would be picked up through the planning application process, uncertain **minor negative effects** are predicted due to the lack of clarity.

7.9.29 With regards to local and designated heritage assets, no effects are likely as both sites are some distance away from the main areas of importance in the Conservation Area and the sites are not of special character.

7.9.30 At East Goscote, the allocated site is not within proximity of any heritage assets and does not contribute to the setting of any assets that are further afield. Therefore, **neutral effects** are predicted.

7.9.31 At Rearsby, the site proposed for allocation (HS74 off Gaddesby Lane) is adjacent to the Conservation Area. Although it does not contain any heritage assets, it will need to be designed sensitively to ensure that the open nature of the settlement fringes are maintained. This site is in a gateway location into Rearsby, and so could affect the character of the Conservation Area if designed poorly.

7.9.32 There are no site specific policies, and so there will be a reliance mostly on policies LP2 (*High quality design*) and LP24 (*Heritage*). Provided that development responds positively to the Conservation Area and is of high quality design, negative effects ought to be avoided. However, in the absence of site specific policies and requirements, satisfaction of policies LP2 and LP24 are open to interpretation to an extent. There is therefore a degree of uncertainty.

7.9.33 At Cossington, site HS66 is adjacent to the Conservation Area and could affect the character of the approach to the settlement. The current form is linear, with only limited growth along key routes into the settlement. Unless development on this site takes a similar form, then the potential for negative effects on the historic environment are likely (should a fairly solid block of development occur). A relatively low density and limits to how far the development extends away from the main road could help to retain a linear feeling. The site is currently allocated for 54 dwellings, which is a density of approximately 18dpa. This may allow for such an approach to be taken. With this in mind, and given that the site itself does not contribute to the

special character of the Conservation Area as such, significant negative effects are unlikely. Plan policies LP24 (*Heritage*) and LP2 (*High quality design*) should help to manage impacts, as well as a site specific clause in LP3 (*Housing sites*), which guides the design. As a result, **neutral effects** are predicted.

- 7.9.34 At Hathern, sites HS69 and HS71 are set back from the road, and though they are within fairly close proximity to the Conservation Area or listed assets the sites are not of high quality and are unlikely to have notable effects. As a result, **neutral effects** are predicted.
- 7.9.35 Site HS70 is on the urban fringe, and is adjacent to relatively modern development to the south and west. There are no heritage assets of important views that would be affected by development and so **neutral effects** are predicted.

### General development

- 7.9.36 The spatial strategy policy itself (LP1) does not explicitly set out the need to protect and enhance the special historic character of Charnwood's settlements. It is recommended that a clause is included upfront to clarify the importance of the historic environment to Charnwood and its future strategy.
- 7.9.37 Despite the spatial strategy not referring to heritage, it is explicitly covered by Policy LP24 (*Heritage*), and Policy LP2 (*High Quality Design*). Together, these policies set out the need to protect and enhance the historic environment and the quality of built environments. This should ensure that general developments do not lead to significant negative effects.
- 7.9.38 In addition, there are several other policies that can make a positive contribution towards the special character of Charnwood's places. For example, trees are important to the character of several Conservation Areas across the borough, so Policy LP23 (*Tree Planting*) ought to be positive.
- 7.9.39 Likewise, Policy LP19 (*Landscape, Countryside, Green Wedges and Areas of Local Separation*) that seeks to protect and enhance landscapes has synergies with the heritage policy, as the historic environment is often interlinked with the landscape and natural environment.
- 7.9.40 The Plan has a strong focus on the regeneration of Shepshed and Loughborough, which is likely to lead to an improvement in the built environment in these locations. Ensuring that centres are vibrant and make efficient use of space is positive with regards to the historic environment as it helps to reduce vacant spaces and buildings, whilst increasing interaction with the public realm. Provided that development is respectful of existing character (which policies LP2: *High quality design* and LP24: *Heritage* address) then **minor positive effects** are predicted in this respect.
- 7.9.41 A number of other policies make a minor contribution towards a higher quality built environment, which ought to be beneficial for heritage. For example:
- Policy LP33 (*Sustainable transport*) requires sustainable transport infrastructure to be well-designed and to contribute to high quality places.
  - Requiring rural exception sites to be well-related to and respectful of settlement character.

- Seeking to avoid clusters of takeaway uses which can detract from the retail focus of centres.
- Supporting interaction with cultural and natural attractions such as the Grand Union Canal and the Charnwood Forest.

7.9.42 On balance, the Plan policies are predicted to have **minor positive effects** with regards to the protection and enhancement of the historic environment (when related to general development).

### Overall effects

7.9.43 In general, the strategy directs growth away from very sensitive locations with regards to the historic environment. For example, no development is located at the sensitive settlements within Charnwood Forest such as Newton Linford, Woodhouse Eaves and Swithland, and none is allocated to the smaller villages in the rural north-east such as Cotes, Prestwold, Burton on the Wolds, Hoton and Wymeswold. This is positive from a borough-wide perspective.

7.9.44 Most of the site allocations are in areas that do not contribute positively to the character of their respective settlements, and so impacts on heritage are either unlikely or could be positive (for example in Loughborough there are poor quality sites that reduce the quality of the area rather than supporting it). In this respect, the Plan has mainly **neutral effects** / some **minor positives**.

7.9.45 There are several site allocations identified where negative effects could occur though. At Rearsby and Cossington, site allocations are adjacent to or within the Conservation Areas, and there is therefore potential for the character of these areas to be affected negatively. The effects are not predicted to be significant as there are no designated or locally important assets on these sites, and there are plan policies dedicated to protecting heritage and securing high quality design (including in the case of Cossington a site specific clause). Overall, negative effects ought to be possible to avoid, but there is an element of uncertainty.

7.9.46 At Rothley, the setting of a listed building is likely to change permanently, but the character of this location has already been substantially affected by modern development. As a consequence, only **minor negative effects** are predicted.

7.9.47 There are also a number of sites that fall within areas of archaeological interest. In the absence of site specific policies and no policy within the Plan that addresses such factors, **minor negative effects** cannot be ruled out at these sites. It is therefore recommended that these factors are covered by a general policy clause or measures specific to each site.

7.9.48 The supporting Plan policies should help to minimise effects associated with site allocations to an extent, and for several sites, specific clauses have been drafted.

7.9.49 In terms of general development principles and other elements of the Plan, mostly **minor positive effects** are predicted, which should help to achieve improvements in terms of the wider public realm and town centres.

## 7.10 Population – Reduce poverty and deprivation

### Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

- 7.10.1 The allocated sites located within Syston fall within areas that are recorded as being the 20 – 40% and 40 – 60% most deprived areas in England. This is the same for sites that are allocated in Glenfield, Thurmaston and Birstall. Broadly speaking, these are relatively low levels of deprivation, and so development is unlikely to have a major effect (either positive or negative) with regards to deprivation and inequalities.
- 7.10.2 Development in these areas could however help to provide a degree of affordable housing for communities in central parts of Syston and Leicester City itself, where there are higher levels of deprivation, which is a positive effect.
- 7.10.3 New development at larger sites can help to deliver improvements to social infrastructure, but it is not clear whether this would be the case for the Syston urban extension (given that there are no site specific policies).
- 7.10.4 There are policies within the plan that seek to secure developments that improve the quality of areas. For example LP2 (*High quality design*) seeks to achieve safe and attractive developments that encourage social interaction. Policy LP24 (*Heritage*) will require sites propose for allocation to provide open space in accordance with published standards, and several policies seek to enhance accessibility. These elements should help improve links between new and existing communities, which could possibly benefit areas of deprivation if new facilities are present on new developments. However, most of the deprived areas are some distance away from sites allocated for housing, so the effects are likely to be limited in this respect.
- 7.10.5 Overall **neutral effects** are predicted. Though development in this location could provide housing for communities, those directly adjacent have relatively low levels of deprivation. Whilst there are some plan policies that should ensure social infrastructure is secured through new development, there are no specific policies that directly relate to reducing inequalities in areas that are adjoining the existing built up area of Leicester. Furthermore, increased development in these locations could possibly lead to additional pressure on road networks, causing congestion and air quality issues in deprived areas within Leicester.

### Loughborough

- 7.10.6 Allocated sites in Loughborough are within areas of 0 – 20% most deprived, 20 – 40%, 40 – 60% areas of deprivation. Sites in the central areas are located closest to areas of high deprivation (0-20%), and could therefore help to provide enhanced housing, social infrastructure and improvements to the public realm in these areas. These are **minor positive effects**.
- 7.10.7 The larger site allocations are located adjacent to areas of relatively low deprivation and so are unlikely to have a direct significant effect on such areas.
- 7.10.8 Larger scale development with links to deprived areas can improve amenity and access to social infrastructure if designed to be inclusive and respond to the existing environment.

7.10.9 Policy LP14 (*Regeneration of Loughborough*) in the Plan seeks to ensure that development in Loughborough helps to benefit the deprived communities in this settlement. This is positive, but the benefits cannot be assured. Positive effects will also be partly dependent upon the application of Plan policies that seek to enhance social infrastructure and the environment.

#### Shepshed

7.10.10 In Shepshed, the allocated sites are mostly located on the urban fringes. The majority of these sites are within areas or adjacent to areas that are 20 – 40% and 40 – 60% quintiles of multiple deprivation.

7.10.11 Future development in these areas may involve improvements to existing infrastructure such as roads, and community infrastructure (schools, open space, healthcare for example). This can have some benefits for existing communities and create attractive sustainable places. However, there are no guarantees that such benefits would be felt by deprived communities, particularly as there are none in the immediate vicinity.

#### Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar, Mountsorrel)

7.10.12 The sites allocated within Sileby and east of Rothley are broadly within areas with low levels of deprivation (80 – 100% least deprived areas). Therefore, development is unlikely to have a notable effect on communities of need.

7.10.13 The allocated housing site in Anstey falls broadly within areas categorised as being in the 20 – 60% deprived range. Again, whilst development can bring some environmental improvements and social infrastructure, the effects upon the most deprived communities and in terms of reducing deprivation are limited.

7.10.14 At Barrow-upon-Soar levels of deprivation are low and the proposed housing allocations are unlikely to have any effect with regards to poverty and deprivation.

7.10.15 The site proposed for allocation within Mountsorrel falls within the 80-100% least deprived areas and is very small scale. Though there is an area of 0-20% deprivation nearby, there are unlikely to be benefits for residents in those areas.

#### Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

7.10.16 These settlements exhibit low levels of deprivation, with the allocated sites all falling within the 60-80% or 80-100% most deprived areas (i.e. the least deprived quintiles).

7.10.17 Though development could put pressure on existing community facilities, development on the larger sites (such as at East Goscote) could also bring on site improvements or contributions to nearby facility enhancement.

7.10.18 The effects on deprivation and inequality are predicted to be negligible though given the low levels of deprivation involved.

### **General development**

7.10.19 The Draft Local Plan includes policies that could help to reduce inequality and tackle poverty. For example:

- 7.10.20 Policy LP27 (*Protection of community facilities*) seeks to protect community facilities, which play an important role in creating and maintaining a sense of community identity and social capital. Such facilities are also important in supporting minority groups.
- 7.10.21 Policy LP14 (*Regeneration of Loughborough*) supports development in Loughborough that clearly benefits communities with the greatest levels of deprivation.
- 7.10.22 Policy LP11 (*Meeting employment needs*). This focuses on meeting the economic needs of the borough whilst supporting wider needs within Leicester. It is possible that residents in deprived areas could benefit from access to jobs.
- 7.10.23 There is a focus on the regeneration of centres, in particular Loughborough and Shepshed which is where some of the more deprived communities in the borough are located. Improvements to centres could help reduce poverty through job opportunities, improved access to facilities and higher quality public realm.
- 7.10.24 There is a requirement to protect and enhance environmental factors such as green space, public realm, tree coverage and flood risk. These can all contribute to better environments to live within. It is possible that residents in deprived areas could benefit.
- 7.10.25 Though there are no allocations in rural areas, there are supporting policies in the Plan that seek to enable viable rural economies. This could have minor benefits with regards to inclusion, as one of the main issues in rural areas is lack of access to services and facilities.
- 7.10.26 Whilst there are positive policies within the Plan, there are no measures that would directly secure a reduction of inequalities and the 'gap' between more affluent areas compared to the most deprived areas. It should be acknowledged that there are a multitude of factors that influence deprivation though, some of which the Plan cannot address.
- 7.10.27 In combination, these policies are predicted to have **minor positive effects** overall.

### Overall effects

- 7.10.28 The strategy seeks to maximise brownfield regeneration before the release of greenfield land (which is generally in less deprived areas). In this respect, there ought to be benefits in terms of addressing poverty, because new development can provide affordable homes and improve social infrastructure. Furthermore, the location of employment is broadly accessible to deprived communities by public transport, which should help improve access to jobs.
- 7.10.29 There are no direct policies that relate to reducing deprivation within Charnwood, but for Loughborough, there is support for development that shows clear benefits for deprived areas. Consequently, **minor positive effects** are predicted.
- 7.10.30 There is substantial growth in areas that could generate increased traffic into areas that are deprived (such as in Leicester and in parts of Loughborough). Without improvements in road and sustainable transport infrastructure, negative effects on such communities could occur. This is an uncertain **minor negative effect**.

## 7.11 Population - Promote healthy and active lifestyles in the Borough

### Strategy / site allocations

#### Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

- 7.11.1 The smaller sites in the urban area of Thurmaston and Syston are within walking distance of a GP surgery or are accessible by short bus journey (i.e. within 800m).
- 7.11.2 At the urban fringes, the larger sites proposed for allocation are not within ideal walking distance, but nevertheless, there is a GP surgery in the settlements that could accommodate new development (assuming adequate contributions are secured).
- 7.11.3 The nearby SUE will also include a new health centre that could provide an alternative choice for new communities in the Leicester Urban Area (though not on foot).
- 7.11.4 In terms of access to health facilities, the effects are therefore **neutral** (i.e. the baseline position is unlikely to change).
- 7.11.5 With regards to active lifestyles, there are several factors that can contribute to whether people choose active modes of travel and the extent to which they engage in recreation and leisure. One factor is the walkability of neighbourhoods, including access to local facilities.
- 7.11.6 In this respect, all of the sites within the urban area are within walking distance of a primary school, and are accessible by public transport (or cycle in some locations) to a secondary school. This means that there is choice in relation to modes of travel.
- 7.11.7 There are local mini-markets and a large supermarket within the Thurmaston area that will service new development in the Leicester Urban Area (including at Syston), but these are not likely to encourage walking and cycling given their distance to proposed site allocations.
- 7.11.8 Another important factor is access to local green space and formal opportunities for play and sports. In this respect, any new communities in the Leicester Urban Area should have good access to Watermead Country Park (though not on foot for those at Syston). In terms of walkable spaces, sites within the Syston urban area have good access to sports pitches and play spaces, though the facilities associated with some could be improved (possibly through contributions from new development).
- 7.11.9 The sites at the urban fringe are large enough to support on-site open space, and are also within walking distance to existing areas such as Deville Park, which should help to promote recreation.
- 7.11.10 Overall, development in this area is likely to have a **minor positive effect** with regards to active living. There are some local facilities to serve new communities, and it is presumed that new open space would be secured as required. Development also presents an opportunity to improve some of the local facilities (such as poor quality changing facilities). Significant improvements in health are not expected though.

## Loughborough

- 7.11.11 All of the sites proposed for allocation within the urban area are within walking distance of a GP. Some are within 400m, whilst others are within 800m. There is a range of healthcare facilities in the urban area that could accommodate the level of growth involved (presuming contributions are made that help to enhance provision). In this respect, the location of new development in Loughborough is a **minor positive effect**.
- 7.11.12 Site allocation HS21 (Devonshire Square Opportunity Site) involves an existing community centre (John Storer House Community Centre). The loss of this facility would have a negative effect on wellbeing as it is currently well-used by a range of community groups. To avoid negative effects, redevelopment of this site should be required to have regard to the need for a suitable replacement for this facility. Plan Policy LP27 (*Protection of community facilities*) is relevant in this case and should help to protect the facility (there is also an SPD in place that states the importance of this community facility to any regeneration scheme). Therefore, negative effects are avoidable.
- 7.11.13 The sites proposed for allocation at the urban fringes are not well related to existing health care facilities in terms of active travel. Most of the sites are over 1200m away and therefore are unlikely to promote alternative modes of travel. That being said, the range of GP services in the urban area ought to provide choice for new communities. None of the new developments are large enough to provide the critical mass for new health care facilities on site. However, there may be a need for additional health care to support an increase in 2,000 dwellings for Loughborough. It is presumed that contributions will support enhancements, but it is unclear how these would be applied (i.e. expansion to existing surgeries / satellite facilities / new facilities). **Neutral effects** are predicted in relation to the urban fringe sites as access is unlikely to be notably better or worse than at present.
- 7.11.14 With regards to recreation the sites within the urban area have very good access to a range of leisure and recreation facilities including sports pitches, leisure centres, places of prayer, a library, community halls, youth centres and allotments. New housing should therefore be very well placed to support healthy lifestyles, which is a **minor positive effect**.

The urban fringe sites have poorer access to existing facilities (by non-car modes), but do have the potential for better access to the countryside. The scale of the sites ought to allow for on site improvements to open space, and Plan Policy 25 (*Open spaces, sport and recreation*) should ensure that any deficiencies are addressed. This could therefore lead to **minor positive effects**.

## Shepshed

- 7.11.15 The majority of proposed locations for development are at the urban fringes. Broadly speaking, none of the sites are in walking distance of existing health facilities in Shepshed. Whilst there is still access to facilities in the urban area, this would not be through active travel. It is unclear whether satellite health facilities or new facilities would be secured to help address this issue. Therefore, a **minor negative effect** is predicted, given that the large scale of additional development could put pressure on existing facilities (only two healthcare centres) and will not be accessible on foot.

7.11.16 With regards to recreational opportunities; access to sports pitches, leisure facilities and green space in the urban area is more limited compared to Loughborough, and so **neutral effects** are predicted. At the urban fringes, access is poorer still, but there is opportunity for greater access into the countryside. To ensure that such positive effects are obtained it is recommended that a comprehensive green infrastructure strategy is prepared which seeks to enhance access to green space (as well as addressing biodiversity enhancement and flood management). An uncertain **minor positive effect** is predicted in this respect.

#### Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar)

7.11.17 At Anstey the site proposed in the urban area is within very close proximity to the health centre, which is positive for new homes (though the number of people involved would be small). The site at High Leys / Manor Farm (HS52) is not within ideal walking distance being over 1.1km away. Nevertheless, there is access to healthcare within the settlement with links to public transport. The amount of growth involved will not create a critical mass for new facilities, but it is presumed contributions to enhanced provision would be made. **Neutral effects** are predicted as access to healthcare is unlikely to be notably worse or better.

7.11.18 With regards to recreation, Site HS52 is adjacent to open space, which could potentially be enhanced through on-site measures. There is also further open space in the settlement, and a large Country Park which would offer very good opportunities for recreation for new communities. In this respect, **minor positive effects** are predicted.

7.11.19 The site proposed for allocation in Mountsorrel is within walking distance of existing GP facilities and the small scale of development involved would not put particular pressure on capacity. **Neutral effects** are therefore predicted.

7.11.20 At Rothley, the sites are not within walking distance of current health facilities in Rothley. Whilst a new health facility is mooted for the Birstall SUE, this has not yet been confirmed, and would still be further than an ideal walking distance. Nevertheless, the scale of growth involved ought to be possible to accommodate at existing and planned facilities (presuming contributions are secured), and there are public transport links. Access to healthcare is unlikely to be significantly worse or better, and so **neutral effects** are predicted.

7.11.21 With regards to recreation, the sites would have good access to the Broadnook Country Park, which is proposed as part of the Birstall SUE. There is also reasonable access to existing local green space, a leisure centre and community buildings. New communities here should therefore have the conditions to encourage healthy lifestyles, which is a **minor positive effect**.

7.11.22 The sites at Barrow-upon-Soar are not within walking distance of existing health care facilities. Nevertheless, the scale of growth involved ought to be possible to accommodate at existing and planned facilities (presuming contributions are secured), and there are public transport links. Access to healthcare is unlikely to be significantly worse or better, and so **neutral effects** are predicted.

7.11.23 With regards to open space, the sites are within close proximity to Millennium Park, which supports recreation and healthy lifestyles. There is also a library, local community halls and sports clubs and water based recreation in the settlement itself. New communities here should therefore have the conditions to encourage healthy lifestyles, which is a **minor positive effect**.

- 7.11.24 At Sileby there are two healthcare facilities, which are accessible on foot to the two sites proposed for allocation within the existing settlement boundary. The site at the urban fringes is farther away, but could still access facilities by public transport or car. In this respect, **neutral effects** are predicted.
- 7.11.25 With regards to open space and recreation, the site is not ideally related in terms of walking distance. However it has good access to the 'countryside' which could perhaps be enhanced. Overall, **neutral effects** are predicted.
- 7.11.26 The site proposed for allocation in Quorn is not within ideal walking distance to the health facilities in the settlement. However, it is at least accessible easily by public transport or car. The site is not currently used for recreational purposes, nor does it provide visual amenity for certain homes.
- 7.11.27 With regards to recreation, the site is well located in relation to green space; there are sports facilities adjacent, and a Library / Community Facilities in the centre. New communities here should therefore have the conditions to encourage healthy lifestyles, which is a **minor positive effect**.

#### Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

- 7.11.28 New development at Cossington would be reliant on access to healthcare facilities outside of the settlement (most likely at Sileby). The scale of growth involved is unlikely to generate notable pressure on existing facilities at Sileby, but access would not be through walking and cycling. Therefore, **neutral effects** are predicted.
- 7.11.29 With regards to recreation, the village is surrounded by countryside, but not much of this is classified as public open space. There are some local facilities such as an allotment, sports pitches and a village hall, but there are no particular strengths with regards to promoting healthy living. Therefore, **neutral effects** are predicted.
- 7.11.30 At Hathern all three of the sites proposed for allocation are within a reasonable walking distance from the existing health facilities. The scale of growth involved is unlikely to put significant pressure upon health facilities. Therefore, **minor positive effects** are predicted.
- 7.11.31 With regards to recreation, the village is surrounded by countryside, which could encourage walking. However, the amount of formal open and green space is limited, and so **neutral effects** are predicted in terms of promoting healthy lifestyles.
- 7.11.32 There are no health facilities in Queniborough or Rearsby, with access likely to be to the small facilities in East Goscote or at Syston. Again, access through walking and cycling is unlikely.
- 7.11.33 It is unclear whether the cumulative scale of growth involved at these settlements could be accommodated at the East Goscote health facilities. It is expected that capacity would be dealt with through development contributions, but an element of uncertainty exists in relation to the predicted **neutral effects**.

## General development

7.11.34 There are several policies within the draft Plan that seek to support people's health and wellbeing.

- There is a range of housing policies proposed that will deliver affordable, accessible and adaptable homes. This will contribute positively to health and wellbeing for residents.
- Regeneration strategies for Loughborough and Shepshed should help to improve public realm in these locations, which can be beneficial for wellbeing. It should also help to provide residential development in accessible locations and support new jobs in the town centres.
- Policy LP18 (*Hot food takeaways*) provides specific measures to manage the impacts of hot food takeaway establishments. This is positive in terms of discouraging unhealthy eating, as well as protecting residential amenity.
- Policies that seek to protect the environment will have indirect positive effects upon health and wellbeing by allowing for interaction with nature and protecting cultural assets and sense of place. High quality design (Policy LP2) should also help to provide attractive and safe public and private amenity which supports active lifestyles.
- Policy LP25 (*Open spaces, sport and recreation*) provides a framework for the safeguarding and provision of open space, sport and recreation. This has direct benefits with regards to healthy living. Likewise, Policy LP26 (*Indoor sports facilities*) supports indoor sports facilities.
- Policy LP27 (*Protection of community facilities*) provides a framework for the protection of important community facilities that are important for the wellbeing of communities and building social capital.
- Flood risk management will protect the health and wellbeing of those at risk of this hazard.
- There is support for walking and cycling and the prioritisation of sustainable and active modes of travel. This encourages healthier lifestyles, and could help to improve air quality, which benefits health. It has been recognised by the NHS that people are less active as technology has made our lives easier. People live sedentary lifestyles as most people drive cars, work in sedentary jobs and manual tasks are not as demanding. These policies are therefore a step in the right direction.

7.11.35 In combination these policies are predicted to have **significant positive effects** upon health and wellbeing. The principles and requirements set out will help to guide development upon sites proposed for allocation (and development more generally).

## Overall effects

- 7.11.36 Overall, the strategy directs growth towards locations that have reasonable access to healthcare facilities. In the main, the effects are therefore likely to be **neutral** in this respect.
- 7.11.37 However, there are no details within the Plan as to how health care facilities will be provided to support new development. For some locations, there could therefore be substantial pressure on existing facilities in the short term. In particular, a large amount of growth is proposed in Shepshed with only 2 existing GPs. There is therefore an element of uncertainty.
- 7.11.38 With regard to open space and opportunities for recreation, the majority of sites proposed for allocation are well located. This should help to provide the conditions for healthy living, which are **minor positive effects**.
- 7.11.39 Plan policies provide direction for new development in terms of open space provision, and the promotion of active travel in particular. This should further ensure that new development is designed to promote healthy living.
- 7.11.40 Other plan policies contribute **minor positive effects** to health and wellbeing through the provision of suitable accommodation, job opportunities, and improved environments for people to live in.
- 7.11.41 It is difficult to say with certainty that the Plan will achieve a significant positive effect in terms of health and wellbeing. This is in part due to the fact that health is affected by a multitude of factors, many of which the Plan does not influence. Furthermore, it is unclear how healthcare providers will respond to growth. The policies in the Plan are also similar to those that have been in place for several years in the existing and previous Plans for Charwood. Therefore, one could expect such measures to be in place anyway.
- 7.11.42 In addition, it is important to note that residential amenity is likely to be affected for certain communities due to a loss of open space / views near to their homes. There will also be periods of disruption during construction; leading to temporary **minor negative effects** on wellbeing.
- 7.11.43 Consequently, only **minor positive effects** are predicted overall.

**7.12 Population** - *Improve access to affordable housing and ensure an appropriate mix of dwelling sizes, types and tenures within local communities.*

**Strategy / site allocations**

- 7.12.1 The spatial strategy allocates a range of smaller and large sites across the borough. This provides a good mix of site locations and sizes, which should help to meet needs for a range of communities. The overall level of land allocated is higher than identified needs to ensure flexibility; which should ensure that objectively assessed needs are met in full.
- 7.12.2 The most development is proposed in the principal settlements of Loughborough and Shepshed; which is in-line with the settlement hierarchy. Further growth is identified in the Service Centres and Other Settlements, which helps to maintain choice in these areas. Though there are only small amounts of development proposed at some settlements (such as Mountsorrel) there are existing large commitments that ensure housing choice remains.
- 7.12.3 No growth is proposed at the smallest settlements, which means that opportunities for affordable housing in these locations are limited. However, Plan Policy LP4 allows exception sites in rural areas.
- 7.12.4 Plan Policy LP3 (*Affordable Housing*) should ensure that 30% of the development that is proposed through the allocations is affordable.
- 7.12.5 There is also support for self and custom build dwellings and a suitable mix of properties should be achieved across the housing allocations.

**General development**

- 7.12.6 In relation to development that occurs on non-allocated sites, a suitable mix of house types will still be sought, as will the 30% affordable housing provision. This will ensure that additional homes will be delivered that meet these requirements. The number compared to the site allocations will be much lower, and so benefits would be minor.
- 7.12.7 There are also specific policies that seek to manage the delivery of houses in multiple occupation and student accommodation. The policies are supportive of appropriate development, and so minor positive effects are predicted.
- 7.12.8 With regards to Gypsy and Traveller accommodation, there is a criteria based policy, which is unlikely to lead to significant benefits, as suitable sites have not been identified. However, provision is made in the SUE policies to include plots for such uses.
- 7.12.9 Other policies support residential development without making specific provision such as Policy LP14 (*Regeneration of Loughborough*). This makes an additional minor contribution to the positive effects.
- 7.12.10 The remaining policies are not related to housing development as such, and are unlikely to have notable effects on the ability to deliver housing. Therefore, overall, the effects of the Plan in relation to other development across the district is predicted to be a minor positive

## Overall effects

- 7.12.11 Overall, the Plan is predicted to have significant positive effects with regards to housing. This is related mostly to the strategy, which makes allocations that would exceed objectively assessed housing needs; ensuring that there is flexibility and choice. The spread of development is also broadly in line with the settlement hierarchy and provides a choice of housing in a variety of locations.
- 7.12.12 The supporting plan policies seek affordable housing of 30%, which will apply to both allocated sites and other general development that comes forward in the Plan period.
- 7.12.13 There are also policies that seek to ensure an appropriate mix of homes, and to support custom built dwellings. This will be applicable to all development, and so a substantial amount of new homes should come forward that are designed to meet different needs.
- 7.12.14 Additional plan policies seek to manage development that affects particular people, such as students, houses of multiple occupation and Gypsy's and Travellers. Whilst these policies are broadly supportive of additional appropriate housing, they do not bring forward specific schemes and so only minor additional benefits would be achieved.
- 7.12.15 Overall, the Plan (considered as a whole) is likely to have **significant positive effects** in terms of the delivery of an appropriate mix of affordable (and market) housing.

**7.13 Local economy** - *Promote a sustainable and diversified economy, and improve skills and employability*

**Strategy / site allocations**

**Employment land**

- 7.13.1 The strategy with regards to employment focuses on the delivery of new land at the sustainable urban extensions (Loughborough, North of Leicester, Birstall). There are also smaller sites proposed for allocation at Dishley Grange in Loughborough and land at Rothley Lodge in Rothley.
- 7.13.2 Being located along or close to strategic transport routes, these locations are broadly accessible to existing residents (mostly by car or public transport).
- 7.13.3 Areas proposed for new development are also well related to employment growth. For example, a large proportion of growth is proposed at Shepshed / Loughborough, with further concentrations in the Leicester Urban Area. Several of the 'other settlements' are also well related to the Leicester Urban Area opportunities such as East Goscote, Queniborough, Rearsby and Cossington.
- 7.13.4 The sites proposed for growth are in locations that should attract the employment that is in market demand. The land supply exceeds identified needs, and additional specialist land is identified at the Loughborough University Science and Enterprise Park.
- 7.13.5 This is a separate and distinct opportunity for growth that will provide new jobs and will help to support improved educational standards, innovation and inward investment. Policy LP36: Loughborough University and Science and Enterprise Park allocates land to enable the development in this location.
- 7.13.6 Overall, a **significant positive effect** is predicted.

**Access to education**

Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

With the exception of the sites at Glenfield, all of the sites proposed for allocation in the Leicester Urban Area have very good access to a primary school on foot (and public transport). There are also secondary schools in Thurmaston and Syston servicing these areas.

- 7.13.7 There is sufficient capacity at these schools to service new development, though small deficits may arise in the longer term. Whilst Thurmaston Roundhill Community College is likely to come under pressure, new facilities are planned at nearby SUEs.
- 7.13.8 Overall, **minor positive effects** are predicted in terms of good access to sufficient education.

Loughborough

- 7.13.9 The sites proposed for allocation in Loughborough (whether centrally or at the urban fringes) are accessible on foot or public transport to primary and secondary schools. There is sufficient capacity across the settlement to support new development in the

short to medium term for primary provision, but secondary provision at some schools could be under pressure. In the longer term, the picture is less clear, but it is expected that development contributions would help to enhance provision.

- 7.13.10 **Minor positive effects** are predicted, but these effects become uncertain in the longer term.

Shepshed

- 7.13.11 The sites are mostly on the urban fringes and in the main are not located within walking distance of existing primary and secondary schools. This is a **minor negative effect**.

- 7.13.12 In addition, the capacity of schools could be under pressure early in the Plan period. Primary schools could have some shortages in places, whilst the secondary school could be significantly short. These are potentially **significant negative effects** for residents of Shepshed in the longer term with regards to access to education.

- 7.13.13 It is presumed that development contributions will help to address these issues, but there are no specific measures or infrastructure highlighted in the draft Plan to take a proactive approach. Therefore, a degree of uncertainty exists as to whether negative effects will be successfully mitigated. As a result a residual **minor negative effect** is predicted.

Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar)

- 7.13.14 The proposed site allocations in the other settlements are all located within reasonable walking distance of a primary school and / or easily accessible by a short bus ride. The capacity of schools is an issue for some locations (Rothley and Barrow for example), and so there will be a need for appropriate development contributions to be secured. The levels of growth proposed at each of these settlements is relatively small though and ought to be possible to accommodate. An element of uncertainty exists though, and so a **minor negative effect** is recorded at this stage.

- 7.13.15 There is a secondary school in Quorn, Barrow-upon Soar and Anstey, which is positive in terms of access for new development in these locations. At Sileby and Rothley, there is no secondary school, but one is accessible via a short bus ride. **Neutral effects** are predicted overall.

Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

- 7.13.16 The proposed site allocations in the other settlements are all located within reasonable walking distance of a primary school. There is also sufficient capacity at each of the schools to accommodate growth at the level proposed (presuming appropriate development contributions are secured).

- 7.13.17 There are no secondary schools in these settlements, so access is less favourable.

- 7.13.18 Overall, a **neutral effect** is predicted with regards to educational access.

## **Town and district centres**

### Leicester Urban Area (Glenfield, Thurmaston, Birstall, Syston)

- 7.13.19 Development in the location of Glenfield is unlikely to support any particular local centres, and it is likely that retail and food shopping will take place at nearby retail parks and supermarkets.
- 7.13.20 Within and around the Thurmaston area, this is also likely to be the case given the proximity to large retail parks and supermarkets.
- 7.13.21 At Syston, development could perhaps support new community centres, and may also attract visitors to the centre of the settlement, but car based out of town shopping patterns are also considered likely to continue.

### Loughborough

- 7.13.22 The scale of growth in Loughborough is unlikely to have a major effect with relation to the vitality of the town centre. The additional growth in the town centre area will mean that more spending will occur on local services and retail (which is positive) rather than having to travel to out of town shops. However, the numbers involved are small in the context of the town and its' catchment area, so effects would not be significant. Residential development at the urban fringes is more likely to involve car-based travel. Whilst it is not possible to determine where people will shop, it is probable it would be within Loughborough given that this is the closest centre with supermarkets and retail.

### Shepshed

- 7.13.23 In Shepshed a lot of the allocated sites are well away from the town centre. It is not certain that residents in this location will support retail and leisure in the town centre of Shepshed (as settlements on the urban fringes they could be inclined to use cars to access out of town retail). The impacts on town centre vitality are therefore unclear. It is considered likely that residents would access food and convenience shopping in Shepshed though.

### Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar, Mountsorrel)

- 7.13.24 Development at the Service Centres ought to help to support local centres as new residents could access convenience stores and other small A Class uses. The sites proposed for allocation at Rothley, Sileby, Barrow-upon-Soar and Quorn are mostly not within walking distance of the settlement centres, which might mean that residents are more likely to travel to larger retail parks / supermarkets. The effects are uncertain, but positive effects (in terms of district and local centre vitality) seem unlikely.
- 7.13.25 At Anstey and Quorn, the sites proposed for allocation are better placed to access local centres, and so positive effects may be more likely (but are still uncertain). In Anstey for example, there would be good access to out of town retail parks such as Beaumont Shopping Centre, which could discourage local shopping for food and convenience (and more likely retail).

### Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

7.13.26 Given their more isolated nature and village character, development in the other settlements could potentially lead to some increased local spending. However, the effects would be minimal given the scale of growth involved. There would also be a need to travel for a wider range of services and retail.

### General development

7.13.27 The strategy seeks to locate residential development in accordance with the settlement hierarchy in urban areas to form compact and walkable town centres (Policy LP1: Development Strategy). This is positive as it brings development close to existing sources of employment.

7.13.28 The Plan also seeks to maintain existing key employment areas, which protects them from being converted to alternative uses (unless this is appropriate and evidenced).

7.13.29 There are a range of town centre regeneration policies that should help to improve the economic health of Loughborough and Shepshed in particular.

7.13.30 The Plan also identifies a need to support rural economies through Policy LP16.

7.13.31 By seeking to improve sustainable transport and improve the local and strategic highways network, the Plan should contribute to better conditions for economic growth, which is positive.

7.13.32 Overall, a **minor positive effect** is predicted as a result of these Plan policies.

### Overall effects

7.13.33 The strategy will meet identified needs at locations that are attractive to market and broadly accessible to job seekers.

7.13.34 The proposed housing sites also align relatively well with existing and proposed employment opportunities.

7.13.35 A specific opportunity has also been supported at Loughborough Science and Enterprise Park, which will have positive effects in terms of attracting investment, promoting innovation and improving qualifications.

7.13.36 Overall, **significant positive effects** are predicted in this respect.

7.13.37 With regards to education, the majority of the proposed sites have good access to primary schools on foot or by a short bus ride. With regards to secondary schools, physical access is better for the higher order settlements, and this is where the majority of growth is proposed (which is positive).

7.13.38 It is presumed that development contributions will be made effectively to accommodate growth. However, there appear to be pressures in particular locations that could generate **minor negative effects**. Shepshed in particular has issues that need to be addressed given that a large proportion of growth is proposed in this settlement. Given that there are no specific measures in the Plan at this stage, an element of uncertainty remains; hence the negative effects.

7.13.39 It is unclear the extent to which the strategy will support the vitality of local centres, but there are clear efforts to regenerate Loughborough and Shepshed, which ought to be **positive**.

**7.14 Material assets - Increase access to a wide range of services and facilities.**

**Strategy / site allocations**

Leicester urban fringe (Glenfield, Thurmaston, Birstall, Syston)

- 7.14.1 A proportion of growth is supported in Thurmaston and Birstall in locations that are within close walking distance of primary schools, supermarkets and in some cases a GP. There are several large employment areas nearby, and Leicester itself is within a short bus ride. (or more often car trips). The strategy also seeks to improve the offer in this area through allocations at Watermead Business Park, to the north of Birstall and at the North East of Leicester SUE.
- 7.14.2 Broadly speaking, development in these locations is therefore positive with regards to accessibility, employment opportunities and encouraging alternative modes of transport.
- 7.14.3 Development at Glenfield would be relatively well located in relation to health care, public transport links into Leicester, and a range of job opportunities.
- 7.14.4 A large site is proposed at Syston which would essentially be an extension of development that is already committed at the North East of Leicester SUE. The majority of this site is poorly located with regards to existing walkable local facilities. However, it is presumed that a site of this scale would involve supporting social infrastructure. There would also be potential to make links with the SUE, which will involve new facilities.
- 7.14.5 One particular benefit to Syston as a location is that it has a train station with links to Leicester and Loughborough. In the longer term, it is also likely to have strong links to the A46 Expressway (should this go ahead), but this could encourage car trips.
- 7.14.6 In terms of accessibility, development at the Leicester Urban Fringe is **positive** for communities in terms of walkable local services, public transport links and access to a wide range of job opportunities. A concentration of growth in this location (in addition to that which is already committed) could however lead to increased congestion on road networks into and around Leicester; which is a **minor negative effect**.

Loughborough

- 7.14.7 As a general location, Loughborough is the best served settlements in the borough, and therefore locating growth here is broadly **positive**.
- 7.14.8 The sites that are allocated within the centre of Loughborough itself have very good access to a wide range of services and public transport. New dwellings in this area, as well as a focus on urban regeneration should therefore ensure that a proportion of new development is well located in terms of accessibility. These are **minor positive effects**.
- 7.14.9 In contrast, two large site allocations are proposed at the urban fringe to the south of Loughborough. These are not well located in terms of existing services and facilities. Therefore, unless new facilities (such as local shops, schools, recreation) are secured on-site, it is likely that residents will have poor accessibility by non-car modes of transport. In this respect a **minor negative effect** is predicted. However,

the sites are of a size that may support new facilities, but it is not clear in the Plan that this would be a requirement.

7.14.10 With regards to employment opportunities, there are expansion opportunities within Loughborough including at the Science and Enterprise Park, and new land at the West of Loughborough SUE (as well as existing employment areas). There would therefore be a good connection between new homes and employment opportunities, which is a **minor positive effect**.

7.14.11 In terms of road traffic, the large developments to the south are likely to generate increased car trips along the A6004 and A512, which could contribute to congestion. This is a **minor negative effect** (though this is also uncertain / dependent upon whether road and bus networks can be enhanced in advance of any development in this area).

#### Shepshed

7.14.12 As a general location, Shepshed is one of the best served settlements in the borough, and therefore locating growth here is broadly positive.

7.14.13 Some of the sites are relatively close to the district centre of Shepshed and so access to basic facilities, retail and public services is generally good. For the majority of development though, access on foot to existing facilities would be poor. The scale of growth involved and the interconnected nature of the sites (particularly to the west of the settlement) should create the critical mass to support new primary school facilities, open space, walking and cycling links, public transport expansion and potentially satellite health care facilities. Such factors are not set out in the current version of the Plan though, and so it is uncertain the extent to which new developments will be supported.

7.14.14 The Plan provides the opportunity to ensure that individual site allocations are linked together through a strategic approach to infrastructure provision. It is recommended that policy measures are implemented to provide such direction for growth in Shepshed (particularly to the west).

7.14.15 With regards to employment, development in Shepshed is well located in terms of access to jobs, and so **minor positive effects** are likely in this respect. However, the growth proposed in this location is not being supported by new strategic roads, which is likely to result in an increase in trips into the town centre, and also on routes towards employment sites and larger centres such as Loughborough. In particular this could increase traffic along the A512, generating minor negative effects.

7.14.16 Overall, effects are mixed. Whilst Shepshed as a location has fairly good access to services, public transport and employment opportunities, the proposed sites do not have good walking access to local services. It is unclear the extent to which new social infrastructure will support new developments and this could lead to **minor negative effects** in terms of a reliance on car-based travel.

#### Service centres (Anstey, Sileby, Rothley, Quorn, Mountsorrel, Barrow-upon-Soar)

7.14.17 At Mountsorrel, only one small site is proposed for allocation. It is relatively well located in terms of accessibility, but the number of dwellings is low, and so significant effects will not occur.

- 7.14.18 At Quorn, only 75 dwellings are allocated at one site, at this scale of growth there would not be critical mass to support new facilities on site. The site also has relatively poor accessibility by non-car modes of transport as it is more than 800m from schools and a GP and almost 1km to a local convenience store. Given its location near to a key road junction it may also be more likely to encourage road based travel. Consequently, in terms of accessibility, a minor negative effect is predicted.
- 7.14.19 At Sileby, the majority of growth is proposed at one large site. This location has broadly good accessibility to existing facilities on foot (primary school, GP, convenience store within 800m). One particular benefit of this settlement is the presence of a train station with good links to Leicester and Loughborough.
- 7.14.20 At Anstey, the majority of growth is proposed at one site on the fringes of the settlement. In terms of existing facilities, this location has reasonable access to existing facilities and services in the settlement centre. The site would also have good access to a bus stop, with services into Leicester. Though likely to be car dominated, there are retail facilities nearby, and Anstey is well located in terms of access to strategic road networks and jobs.
- 7.14.21 At Rothley two sites are proposed that have moderate accessibility to local services, but is within walking distance to public transport. Car travel is still likely to be dominant though. The scale of development is unlikely to support on site improvements to social infrastructure (except perhaps for open space).
- 7.14.22 Each of the service centres is relatively well connected to existing employment opportunities, whether this be near to Loughborough (Quorn and Barrow-upon-Soar) closer to Leicester (Anstey) or in between (Rothley / Sileby). For Rothley, there is additional local employment land proposed also.
- 7.14.23 At Barrow-upon-Soar the majority of development is proposed at site allocations to the north east of the settlement. Neither are within ideal walking distance to existing facilities and services, and so it is possible that car travel will dominate. Access to public transport is reasonable though, and there is a train station providing good connections to Loughborough and Leicester.
- 7.14.24 Overall, the residential development proposed at the service centres is likely to have only moderate or poor access to local services in terms of walking. This could be improved depending upon new facilities, but it is unclear what these would be. Despite this, the locations are well served in terms of public transport and access to jobs, so **neutral effects** are predicted overall. The overall amount of growth proposed in these areas is not substantial, and so from a borough wide perspective the effects are not significant.

Other settlements (Queniborough / East Goscote / Rearsby / Hathern / Cossington)

- 7.14.25 Broadly speaking, the other settlements are less well served by community facilities, services and public transport links. In this respect, the overall strategy is positive as it only directs a small proportion of the overall growth to these locations.
- 7.14.26 In terms of the specific site allocations, they are mostly within walking distance to the services that area available locally. For example:
- At East Goscote a GP, pub and school are all within 800m and there is provision for a small amount of employment growth.

- At Rearsby, the proposed site allocation is within reasonable walking distance of a primary school, village hall and bus stops.
- At Hathern, the sites proposed for allocation are within a reasonable walking distance from services and facilities in the settlement.
- At Queniborough, fairly substantial development is proposed but this is within reasonable walking distance of a local store and primary school. The scale of development may also potentially support new facilities, but this is not clear.
- At Cossington, accessibility is slightly poorer, but the low scale of growth is unlikely to lead to additional facilities being secured.

7.14.27 Overall, directing growth to these locations is likely to lead to **neutral effects** in terms of accessibility. Access is unlikely to be substantially improved by new facilities, and car use is likely to remain the dominant form of travel. However, there is relatively good access to public transport and employment, which provides a foundation for encouraging more sustainable patterns of travel.

7.14.28 From a borough-wide perspective the strategy will lead to new development in areas with varying degrees of accessibility.

7.14.29 In the inner areas of Loughborough and the Leicester Urban area a range of services and facilities are walkable, and there is very good access to jobs and public transport. A fairly large proportion of growth is proposed in these locations, and so **positive effects** are predicted.

7.14.30 However, a large amount of development is also proposed at the urban fringes of Shepshed and Loughborough in locations that are not currently well connected to local services and facilities. Without new social infrastructure being secured it is possible that communities will have poor accessibility on foot and that car travel would dominate (which would be **minor negative effects**).

7.14.31 With regards to the service centres and other settlements, the amount of growth proposed is modest. The development sites in these locations are not all ideally located, but the settlements do provide a reasonable range of services and public transport access. This is therefore likely to lead to a continuation of current trends (i.e. **neutral effects**).

7.14.32 The wider Plan policies state that development must ensure good access to public transport (within 400m) and will be required to create walking and cycling links to facilities. Whilst this is positive, some allocated sites are not within reasonable walking distances to existing facilities. Whilst the quality of routes could be improved, the overall distance would remain the same, and so access would not be ideal. As a result, the positive intention of these plan policies may not be realised. The Plan policies should help to improve permeability in general though and could help to encourage people to travel longer distances if routes are safe and attractive.

### **General development**

7.14.33 A key principle of the plan is to reduce the need to travel and to encourage more use of public transport, walking and cycling. This applies to development in general, and so any further growth ought to be planned to support this principle. This includes housing and new employment growth (aside from the allocated sites).

7.14.34 As well as the spatial strategy (*which seeks to contain development within specific settlement areas*), the key element of the Plan is Policy 33 Sustainable Transport. This seeks to ensure that developments encourage walking, cycling and public transport infrastructure. Applied to development proposals, this should have positive effects, especially when considered alongside the focus on the regeneration of Shepshed and Loughborough central areas; which have good accessibility.

7.14.35 There is also a need to consider impacts on road networks and to tackle congestion through sustainable modes of transport (firstly) and improvements to roads. Decreased congestion would lead to quicker trips and therefore improved access to jobs and services. This would not necessarily be by public transport though (but the policy makes clear that this should be the first consideration).

7.14.36 The approach and policies within the Plan encourage a positive approach to accessibility and sustainable travel, which is a **minor positive effect**.

### Overall effects

7.14.37 The Plan strategy locates most growth in areas with good access to employment (both new and existing locations) and in settlements that are well served by a range of facilities. In this respect, the strategy is **positive** as it directs growth away from the smaller villages and more remote locations. It also should help to promote greater use of public transport.

7.14.38 However, the chosen site allocations at some settlements are not all within walking distance of existing services. Despite the Plan seeking (through supporting policies) to ensure that sustainable modes of travel are incorporated into development, some of these locations will remain distant to a primary school, GP and / or other local services.

7.14.39 For smaller scale allocations, on-site improvements are unlikely; but there are several large developments where on-site facilities could perhaps be secured. At present it is not clear in the Plan whether / where this would happen though, so the effects are uncertain in this respect.

7.14.40 On balance, mixed effects are predicted. On one hand, **minor positive effects** are predicted to reflect the overall focus on development and regeneration at settlements that are well served by transport links and a range of jobs and services. There is also a general focus on shifting towards sustainable modes of transport.

7.14.41 However, on the other hand, there are several site allocations that are not within reasonable or ideal walking distance of local facilities, and it is possible that such developments would be dominated by car use. This could have knock on implications in terms of increased car trips along busy routes into the City. The effects associated with such development are neutral (i.e. more of the same) to **potentially minor negative**.

7.14.42 With greater clarity about the social infrastructure that would be required on larger sites, it is possible that positive effects would be enhanced and negatives reduced.

**7.15 Mineral resources - Ensure sustainable management of the Borough's mineral resources.**

**Strategy / site allocations**

Leicester Urban Area (Thurmaston, Birstall, Syston)

- 7.15.1 A large majority of the sites allocated within the Leicester Urban Area are in areas where sand and gravel resources are thought to be present. Other minerals are not likely to be present on the allocated sites.
- 7.15.2 Policy LP35 (*North of Birstall Sustainable Urban Extension*) requires development to respond to the minerals safeguarding policies in the Leicestershire Minerals Development Framework. Development in these areas will have to have regard to sand and gravel minerals policies within the Leicestershire Mineral Development Framework.
- 7.15.3 Sites within the urban area are not likely to be suitable for extraction of minerals, and so the impacts here are neutral. The main sites of relevance are those at the Syston urban fringes, which fall within Sand and Gravel Minerals Safeguarding Areas.

Loughborough

- 7.15.4 The sites proposed for allocation in central parts of Loughborough are not within any mineral safeguarding areas.
- 7.15.5 The majority of sites at the urban fringes are not within minerals safeguarding areas. The exception is site HS36, which is within an area containing sand and gravel. Approximately 70% of the site is affected. There will be a loss of resources here, but the location is not considered likely to be suitable for minerals extraction, nor would it affect the ability to meet demands.
- 7.15.6 There are no policies that relate to mineral safeguarding within the plan, so such matters would need to be dealt with through the Leicestershire Minerals Development Framework.
- 7.15.7 However, given that these allocations are being relied upon to deliver housing within the plan period, it is considered likely that such resources would be sterilised. Whilst this is a negative effect, there are sufficient resources elsewhere across the region.

Shepshed

- 7.15.8 Sites proposed for allocation in Shepshed are within areas safeguarded for sand and gravel, igneous rock and clay. The sites located along Tickow Lane (approx. 80ha) fall within areas of sand and gravel resources.
- 7.15.9 Site HS44 off Ashby Road Central overlaps with approximately 9ha of clay resources.
- 7.15.10 Site HS39 overlaps with minerals safeguarding areas for igneous rock. Other smaller allocations in Shepshed urban area are not within areas safeguarded for minerals.
- 7.15.11 There are no policies that relate to mineral safeguarding within the plan, so such matters would need to be dealt with through the Leicestershire Minerals Development Framework.

7.15.12 Given that these allocations are being relied upon to deliver housing within the plan period, it is considered likely that such resources would be sterilised. Whilst this is a minor negative effect, there are sufficient resources elsewhere across the region.

Service Centres (Anstey, Rothley, Sileby, Quorn, Barrow-upon-Soar, Mountsorrel)

7.15.13 Both sites proposed for allocation in Anstey are located in areas outside of mineral safeguarding areas.

7.15.14 Sites in Rothley, Sileby and Quorn overlap with sand and gravel safeguarding areas to varying extents. They are relatively small scale though and not likely to be ideal for extraction activity. Nevertheless, such resources would be sterilised by development. Given that most of these sites would be expected to come forward in the first 5-10 years of the plan it is unlikely that minerals extraction would take place prior to development.

7.15.15 At Barrow-upon-Soar, site HS54 falls within an area safeguarded for Gypsum. However, only a small area is affected.

Other settlements (Queniborough, Cossington, East Goscote, Hathern, Rearsby)

7.15.16 The majority of sites proposed for allocation in these settlements are within areas of sand and gravel mineral safeguarding. Given the location of sites in very close proximity to residential areas, and the small scale nature of the sites, it is unlikely that they would be attractive / suitable for commercial minerals extraction. These sites would largely be expected to come forward within the first 10 years of the plan period, and so sterilisation is likely to occur. However, effects would not be significant.

7.15.17 There are no policies that relate to mineral safeguarding within the plan, so such matters would need to be dealt with through the Leicestershire Minerals Development Framework.

**General development**

7.15.18 There are no specific policies that discuss development in relation to the safeguarding of minerals or supporting infrastructure. Therefore, neutral effects are predicted in this respect.

7.15.19 It would be beneficial to incorporate consideration of mineral usage and safeguarding as part of the sustainable construction policy. This would make better links to the minerals development plan.

**Overall effects**

7.15.20 The overall effect of the Plan with regards to mineral resources is **minor negative**.

7.15.21 Several sites proposed for allocation fall within areas that are identified for minerals safeguarding and therefore there will be a sterilisation of these resources (mostly sand and gravel). However, this is not considered to be a significant effect as the sites are within locations that are unlikely to be suitable for viable extraction. Furthermore, sufficient mineral resources are identified in suitable locations within the Leicestershire Minerals and Waste Plan.

## 7.16 Mitigation and enhancement

- 7.16.1 The sustainability appraisal (SA) of the emerging Charnwood Local Plan has been an iterative process, in which proposals for mitigation and enhancement have been considered at different stages.
- 7.16.2 Draft versions of each plan policy have appraised through the SA process, and recommendations were made for improvements before the policies were finalised in the Plan.
- 7.16.3 Table 7.1 below sets out how the recommendations made have been taken into account throughout the process. The Council’s response to the recommendations of the SA and the implications of the response for the findings of the SA are also summarised.

*Table 7.1 - Mitigation and enhancement measures*

SA Recommendations	Charnwood’s Response
<b>Draft Plan stage</b>	
<p><b>Issues:</b> <i>Landscape, Historic Environment, Biodiversity</i></p> <p>A site specific policy for HS4 (<b>Syston</b>) could be introduced to guide the form of development, particularly in relation to how landscape matters (which could also affect historic setting) should be dealt with to avoid and minimise negative effects.</p> <p>The North Leicester SUE will involve new green infrastructure networks, and so it is recommended that development on site HS4 is required to make links to this as well as wider existing networks.</p> <p>Linked to landscape, a site specific policy could also include details with regards to environmental net gain.</p>	<p>The supporting text at Policy LP3 confirms that [The Council] “<i>will prepare more detailed policies at the next stage of preparing the local plan relating to how development should take place at the sites we propose to allocate. At this stage we are consulting on the development strategy and the principle of development in these locations</i>”.</p> <p>Proposed Amendments to supporting text and policy wording for Draft Policy LP3: Housing Sites.</p> <p><i>HS6: Land South East of Syston lies in an important location in maintaining the separate identities of Syston, Thurmaston and Barkby, where there is considerable development already committed. It is vital that the site is carefully planned to ensure that development minimises the loss of separation between settlements and integrates the site with proposed and existing Green Infrastructure networks</i></p> <p><b>In the case site HS6: Land South East of Syston should be informed by a masterplan, Green Infrastructure Strategy and Heritage Strategy to mitigate the adverse effects of development</b></p>

**Issues:** *Landscape*

A site specific policy for HS36 (**Loughborough**) could be introduced (or a commitment to a Masterplan) to guide the form of development, particularly in relation to how landscape matters should be dealt with to avoid and minimise negative effects.

Key elements would be to ensure that development is low density, does not create hard borders with the countryside, and achieves net environmental gain. It would be beneficial to include such policy requirements in the Plan to guide growth to ensure that negative effects are avoided and positives maximised.

Proposed Amendments to supporting text and policy wording for Draft Policy LP3: Housing Sites.

Site HS37 Nanpantan Grange lies in a sensitive location on the edge of Loughborough within the Charnwood Forest Regional Park that is important for its landscape character and the links that it has to wildlife sites. It is vital that the site is carefully planned to ensure development in this location successfully integrates into its context.

**In the case of site HS37 Nanpantan Grange, Loughborough should be informed by a masterplan, Green Infrastructure Strategy and Heritage Strategy to mitigate the adverse effects of development**

**Issues:** *Biodiversity*

Given the interconnected nature of the sites to the west of Shepshed, it is considered beneficial to set a green infrastructure framework / strategy in the Local Plan that seeks to improve connectivity between habitats and secure strategic improvements. Provision of a buffer between the developable parts of the sites and the river corridor is important, as is the need to provide areas of recreation that take pressure off existing woodland areas.

Proposed Amendments to supporting text and policy wording for Draft Policy LP3: Housing Sites.

Our Sustainability Appraisal highlights the collective effect of sites west of Shepshed, which means there is potential for significant adverse effects on biodiversity. It is therefore considered essential to set a biodiversity strategy that seeks to improve connectivity between habitats and secure strategic improvements. Provision of a buffer between the developable parts of the sites and the river corridor is important, as is the need to provide areas for recreation that take pressure off existing woodland areas.

in the case of sites in close proximity to the Black Brook west of Shepshed (Sites HS39, HS41, HS42, HS44 and HS48), are accompanied by a jointly produced biodiversity strategy to collectively mitigate the potential significant adverse effects of the development of these sites on biodiversity interests

**Issues:** *Biodiversity*

Policy 22 is does not mention the need to enhance linkages between ecological networks. The inclusion of a clause covering this factor

Draft Policy LP22 supports development proposals which: "protect and enhance the provision of biodiversity networks and wildlife corridors". Networks operate at a variety of scales and so it is considered that it addresses linkages. No amendment proposed.

## SA Recommendations

## Charnwood's Response

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would help to emphasise the importance of strengthening strategic corridors.

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### **Issues:** *Biodiversity*

Adjacent to site HS51 is an area of priority habitat (woodland), which could be expanded as an element of enhancement / net gain (this could be specified in a site specific policy).

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**In the case of site HS51 (name) take opportunities for securing net gain through the enhancement and / or improvement of adjoining woodland and acid grassland priority habitats**

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### **Issues:** *Flood risk*

There is no mention of the surface water run-off rates for brownfield sites, but it is recommended that a net decrease in surface water run-off is requested to help achieve positive effects.

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Add extra bullet point to LP30 Flood Risk Management

**Requiring development of brownfield sites to secure a decrease in surface water run-off**

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### **Issue:** *Air quality:*

In terms of exposure to air quality and the impacts upon human health, the plan could be improved by including specific mention of the need for mitigation and enhancement where development takes place in areas of concern.

Add extra bullet point to LP29

Policy LP28: (Sustainable Construction) states that new development that protects environmental resources including local air quality will be supported. Whilst this is beneficial, there is no mention of mitigation for new development that will be affected by air quality. This would be a useful addition.

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**Requiring development within or adjoining Air Quality Management Areas to include appropriate mitigation measures**

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### **Issues:** *Climate change mitigation*

It would be beneficial for Policy 29 (Sustainable Construction) to require that the potential for renewable energy schemes is explored as part of the planning permission process.

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A requirement for renewable energy schemes to be explored as part of planning permission process is considered too specific as this approach is encouraged through a more general requirement within the current Plan. Policy 29 expects a Sustainability Statement to be prepared setting out how a proposal intends to reduce the energy, water and materials used. This is considered appropriate way of dealing with this matter.

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## SA Recommendations

## Charnwood's Response

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### Amend Policy LP3

#### **Issues:** *Historic Environment*

Development at site HS65 in Cossington ought to be low density and linear in form. Though Plan policies should help to mitigate effects, it would be useful to introduce some site specific requirements to guide development appropriately

Amend support text

Cossington is relatively small linear village with a distinctive historic core based around Main Street. It is important that the proposals in this area respond to its sensitive context and utilize evidence such as the Cossington Conservation Area Appraisal.

#### **Amend policy**

**In the case of sites adjoining Cossington (H66 and H67) development proposals should respond appropriately to the area's sensitive context of the linear village and its landscape setting.**

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### Amend policy LP14 Draft Policy LP14: Regeneration of Loughborough

#### **Issues:** *Deprivation*

The Plan could improve the benefits by including a specific policy clause or policy relating to inequalities and deprivation. This could seek to ensure that areas of need benefit from new development.

There are Priority Neighbourhoods at East and West Loughborough, where levels of deprivation are amongst the highest in Leicestershire. The neighbourhoods suffer from low incomes, high unemployment, low attainment levels, poor health and high crime rates. The east of Loughborough also has pockets of derelict and neglected land. Whilst they contribute to deprivation they also provide an opportunity that can support regeneration.

Amend policy:

**Supporting proposals which provide clear benefits to the Priority Neighborhoods of Loughborough East and Loughborough West**

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#### **Issues:** *Health and wellbeing*

The draft Plan does not make any provisions for the loss of community facilities, which is considered to be a potential area of weakness. A criteria-based policy should be included, and / or a site specific clause that identifies the importance of this facility (John Storer House).

A new policy has been introduced to deal with such matters

**LP27 Protection of Community Facilities.**

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## SA Recommendations

## Charnwood's Response

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### **Issues:** *Accessibility*

The Plan provides the opportunity to ensure that individual site allocations are linked together through a strategic approach to infrastructure provision. It is recommended that policy measures are implemented to provide such direction for growth at the larger site allocations (Shepshed and Loughborough for example).

Amend Chapter 9: Infrastructure and Delivery Road Transport last sentence first paragraph:

The Local Plan provides the opportunity to plan for infrastructure in an integrated manner and to ensure that individual sites can be linked together through a strategic approach to infrastructure provision.

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### **Issues:** *Minerals*

It would be beneficial to incorporate consideration of mineral usage and safeguarding as part of the sustainable construction policy.

Leicestershire Minerals Development Framework Core Strategy & Development Control Policies up to 2021 is part of the Development Plan used to determine planning applications. Policy MDC8: Safeguarding Mineral Resources is the relevant policy and provides policy framework.

No amendments to the Draft Local Plan are proposed

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- 7.16.4 Generally, the Plan has been positively prepared.
- 7.16.5 The SA has been applied iteratively as the draft Plan strategy and policies have developed, involving a range of recommended mitigation and enhancement measures.
- 7.16.6 The Council have responded as they deem appropriate. This has improved the overall performance of the Plan in sustainability terms. In particular, the changes made mean that potential significant negative effects have been avoided.

## 7.17 Summary and monitoring

- 7.17.1 Table 7.2 below summarises the effects of the draft Plan for each of the SA Objectives.
- 7.17.2 There is a requirement to outline the measures envisaged to monitor the predicted effects of the Plan. In particular, there is a need to focus on the significant effects that are identified. It is important to track predicted effects to ensure that positive effects are actually realised and to identify any unforeseen negative effects that may occur.
- 7.17.3 Table 7.2 below sets out monitoring measures under each SA Objective which are intended to be used to monitor any significant effects and to track the baseline position more generally. At this stage the monitoring measures have not been finalised, as there is a need to confirm the feasibility of collecting information for the proposed measures. Wherever possible, measures have been drawn from the Local Plan monitoring framework to reduce duplication.
- 7.17.4 The monitoring measures will be finalised once the Plan is adopted, and will be set out in an SA Statement in accordance with the SEA Regulations.

*Table 7.2 - Monitoring the effects of the Plan*

SA Objectives	Proposed Monitoring Measures
<p><b>Landscape</b></p> <p>The strategy overall is positive as it directs growth away from the most sensitive locations.</p> <p>In the main <b>neutral</b> or <b>minor negative effects</b> are predicted upon landscape character as a result of proposed site allocations. However, this is reliant on the successful delivery of green infrastructure strategies and high quality design (particularly at Syston and south of Loughborough).</p> <p>Supporting Plan policies should generate minor positive effects as they seek to protect and enhance rural areas, consolidate areas of separation / green wedges, and protect landscape character.</p>	<p>Although no significant effects have been predicted, several indicators are proposed to track trends:</p> <ul style="list-style-type: none"> <li>• Change in landscape character assessment and sensitivity ratings.</li> <li>• Net change in green infrastructure (area in ha)</li> </ul>
<p><b>Biodiversity</b></p> <p>Broadly <b>neutral</b> or <b>minor negative effects</b> are predicted for much of the borough. With successful net gain, positive effects could occur, but the plan does not identify particular opportunities to achieve this.</p> <p>Other aspects of the Plan are <b>positive</b> as they promote increased tree cover and biodiversity protection and enhancement.</p>	<p>Although no significant effects have been predicted, several indicators are proposed to track trends:</p> <ul style="list-style-type: none"> <li>• Net loss / gain in designated habitats (ha)</li> <li>• Net change in tree coverage (ha)</li> <li>• Green infrastructure and biodiversity strategies secured for development at strategic development locations.</li> </ul>

**Water Quality**

**Minor negative effects** could potentially arise in the short term as a result of development / construction. However, plan policies that seek to reduce pollution ought to ensure that effects are manageable. In the longer term, a change in land use from agriculture could reduce diffuse pollution.

The implementation of SUDs should also help to minimise pollution from future development. These are **minor positive effects**.

Although no significant effects have been predicted, several indicators are proposed to track trends:

- Achievement / progress towards Water Framework Directive objectives for watercourses within the borough.
- % of implementation of SUDs within developments.

**Flood Risk**

Generally, the sites that have been allocated are either not within a flood risk zone or slightly adjoining a flood risk zone. Therefore, the strategy is likely to generate **neutral effects**.

Other Plan policies seek to avoid and manage flood risk, and this could lead to **minor positive effects** (particularly as there is a requirement to reduce net-run off from brownfield sites if possible). Increased tree planting and biodiversity net gain should also lead to overall improvements.

Although no significant effects have been predicted, several indicators are proposed to track trends:

- Planning permissions granted for sensitive uses in flood Zones 2 and/or 3'.
- Percentage change in run-off at greenfield and brownfield sites.

**Land**

There will be an unavoidable and permanent loss of best and most versatile agricultural land. Though there will remain substantial soil resources, this is still considered to be a **significant negative effect**.

- Amount of brownfield land developed (Ha)
- Amount of agricultural land lost to development (by grade)

**Air Quality**

The spatial strategy and proposed allocations involve growth in areas where increased trips will affect AQMAs. Some proposed residential sites are also be in close proximity to the AQMA in Loughborough. Only **minor negative effects** are predicted though as there is a general improvement in air quality that will offset the increase in traffic.

Other plan policies could have **significant positive effects** in the longer term as they encourage modal shift and in particular support electric vehicles.

- Number of new properties located within AQMAs
- Number of electrical vehicle charging points.
- Proportion of trips (for retail, work, facilities etc) made by public transport, walking and cycling.

## Climate Change

On balance, the Plan is likely to lead to a reduction in carbon emissions (i.e. the positive measures outweigh the increases in emissions that could occur due to the strategic approach to employment), which is a **minor positive effect**.

Although no significant effects have been predicted, several indicators are proposed to track trends:

- Carbon dioxide emissions per capita (by source)

## Historic Environment

From a borough-wide perspective, the effects upon the historic environment are mixed. For most areas, **neutral effects** are predicted, but there could be some enhancement on sites of poorer quality in town centres. A handful of sites present the potential for **minor negative effects** though.

The supporting Plan policies should help to minimise effects associated with site allocations to an extent though.

In terms of general development principles and other elements of the Plan, mostly **minor positive effects** are predicted, which should help to achieve improvements in terms of the wider public realm, protection and enhancement of the historic environment and improvement of town centres.

Although no significant effects have been predicted, several indicators are proposed to track trends:

- Percentage of planning permissions granted in accordance with Heritage England advice
- Number of dwellings which have been vacant for over 6 months.
- Public realm improvements implemented.
- Number of updated Conservation Area Appraisals completed

## Deprivation

Sites proposed for allocation are mostly located in areas that do not suffer from high levels of deprivation. Therefore, it is uncertain whether areas of need will benefit from development. For this reason, only **minor positive effects** are predicted (mostly related to affordable housing provision and new social infrastructure).

There are no specific plan policies that seek to address inequalities, though a focus on regeneration in Loughborough could have benefits in this respect.

The increased growth in Loughborough and the Leicester Urban Area could potentially create increased congestion that may affect deprived areas disproportionately, which is an **uncertain minor negative effect**.

- Levels of multiple deprivation.
- Changes in the following factors in the 0-20% most deprived areas (compared to less deprived areas)
  - Unemployment rates
  - Rates of crime
  - Homelessness
  - Houses in unfit condition
  - Educational attainment
  - Health indicators
  - Air quality
  - Road traffic accidents

## Health and Wellbeing

In the main, the proposed site allocations are located in areas that have reasonable access to healthcare (though this is not on foot in many cases). As a result mostly **neutral** or **minor positive effects** are likely for existing and new residents.

It is unclear how and if new facilities would service growth though.

The majority of site allocations also have good access to local green space and other recreational facilities, which is a **minor positive effect** with regards to wellbeing.

General plan policies should complement these effects as they seek to deliver environmental improvements, improve accessibility, promote active travel and protect and enhance community facilities.

- Compliance with open space standards.
- Access to accessible natural greenspace.
- Percentage of new dwellings permitted within 800m of health care services.
- Housing register of people wanting to move to affordable housing.

## Housing

A **significant positive effect** is predicted as housing needs are likely to be met and a range of locations and types of site (large, small, brownfield, greenfield) are included as proposed allocations. Furthermore, the Plan will seek delivery of affordable housing and the types of homes for those with specific needs.

- Rates of housing delivery.
- Percentage of affordable housing delivered in accordance with plan targets.

## Economy

The strategy will meet identified needs at locations that are attractive to market and broadly accessible to job seekers.

The proposed housing also aligns relatively well with existing employment opportunities.

A specific opportunity has also been supported at Loughborough Science and Enterprise Park, which will have positive effects in terms of attracting investment, promoting innovation and improving qualifications.

Overall, **significant positive effects** are predicted in this respect.

With regards to education, the sites are broadly accessible to primary and secondary schools.

- Employment land developed (Square feet)
- Number and type of jobs generated from development at strategic sites.
- Number and proportion of employees at strategic site developments residing within deprived areas.
- Capacity of schools.

However, in some locations, there could be pressure on services. Whilst it is presumed that development contributions will be made to accommodate growth, there is uncertainty. Therefore **minor negative effects** are possible in some locations (particularly Shepshed).

It is unclear the extent to which the strategy will support the vitality of local centres, but there are clear efforts to regenerate Loughborough and Shepshed, which ought to be **positive**.

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### Accessibility

The Plan strategy locates most growth in areas with good access to employment (both new and existing locations) and in settlements that are well served by a range of facilities. In this respect, the strategy is **positive** as it directs growth away from the smaller villages and more remote locations. It also should help to promote greater use of public transport.

However, the proposed site allocations at some settlements are not all within walking distance of existing services. Despite the Plan seeking (through supporting policies) to ensure that sustainable modes of travel are incorporated into development, some of these locations will remain distant to a primary school, GP and / or other local services, which is **negative** for these locations.

- % of people that use active transport.
- Bus patronage.
- Peak levels of congestion.
- % of dwellings within 400m of:
  - bicycle paths
  - bus / train stops
  - Primary schools

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### Minerals

The overall effect of the Plan with regards to mineral resources is **minor negative**.

It is likely that some mineral resources would be sterilised, but it is unclear whether these would be viable. Furthermore, it is unlikely that this would affect the required supply.

- Amount of land developed within Minerals Safeguarded Areas (by type of mineral).
  - Consultation with minerals authorities to determine if sterilisation is likely / if prior minerals extraction can be undertaken.
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**Next steps**

**08**

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## 8 NEXT STEPS

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### 8.1 Consultation

- 8.1.1 The Council has identified a preferred approach for the scale and distribution of development to meet identified needs. A range of supporting draft policies has also been developed.
- 8.1.2 This interim SA Report has been prepared to document the SA process that has been undertaken to inform the preferred approach, including an assessment of reasonable alternatives (where appropriate).
- 8.1.3 Following the consultation period on the preferred approach, the Council will work towards the publication of a draft Local Plan. This will take account of consultation feedback, the findings of the SA (as set out in this interim report) and any new evidence.
- 8.1.4 A full SA Report will be prepared to support the Publication version of the Local Plan. This will involve updating this Interim SA Report as necessary. Further mitigation or enhancement measures may also need to be considered.
- 8.1.5 The timetable moving towards Adoption of the Local Plan is set out in Table 8.1 below. At each of these stages, it may be necessary to undertake additional iterations of SA to account for changes/modifications to the Plan.

*Table 8.1: Plan timetable*

Plan Milestone	Timescale
<b><i>Draft Plan Consultation</i></b>	October 2019
<b><i>Pre-Submission Local Plan Consultation</i></b>	TBC
<b><i>Submission of the Local Plan</i></b>	TBC
<b><i>Examination</i></b>	TBC
<b><i>Adoption</i></b>	TBC



# **Appendices**

## **APPENDIX A: BREAKDOWN OF HIGH LEVEL HOUSING OPTIONS**

The Council has identified a range of reasonable alternatives to be tested in the SA. Each option has been appraised consistently to allow for a fair comparison. This will ultimately feed into the decision-making process about what the preferred approach should be.

The options are based primarily on housing growth and distribution and are introduced in Section 4 of this Interim SA Report. There are assumptions that employment growth is broadly dealt with through existing allocations and commitments. However, separate options have been looked at for delivering the outstanding employment needs.

Each option sets out a level of housing to be distributed to different spatial areas based upon the settlement hierarchy. The spatial locations used to identify effects are as follows:

- **Edge of Leicester Urban Area** - *Including land immediately adjacent to the boundary as well as within the wider urban areas of Birstall, Thurmaston and Syston.*
- **Loughborough / Shepshed.**
- **Service Centres** - Barrow-upon-Soar, Sileby, Quorn, Mountsorrel, Anstey.
- **Other Settlements** - *Barkby, East Goscote, Rearsby, Wymeswold, Cossington, Thrussington, Burton on the Wold, Newton Linford, Woodhouse Eaves, Hathern, Thurcaston, Queniborough*
- **Smaller villages and hamlets**
- **New Settlements** - *Four locations are identified at Thurcaston / Barkby / Wymeswold / Cotes.*
- **Large standalone settlement** – *Three broad opportunity areas identified to the west of Shepshed, North-east of the PUA and the east of the Borough in the open countryside.*

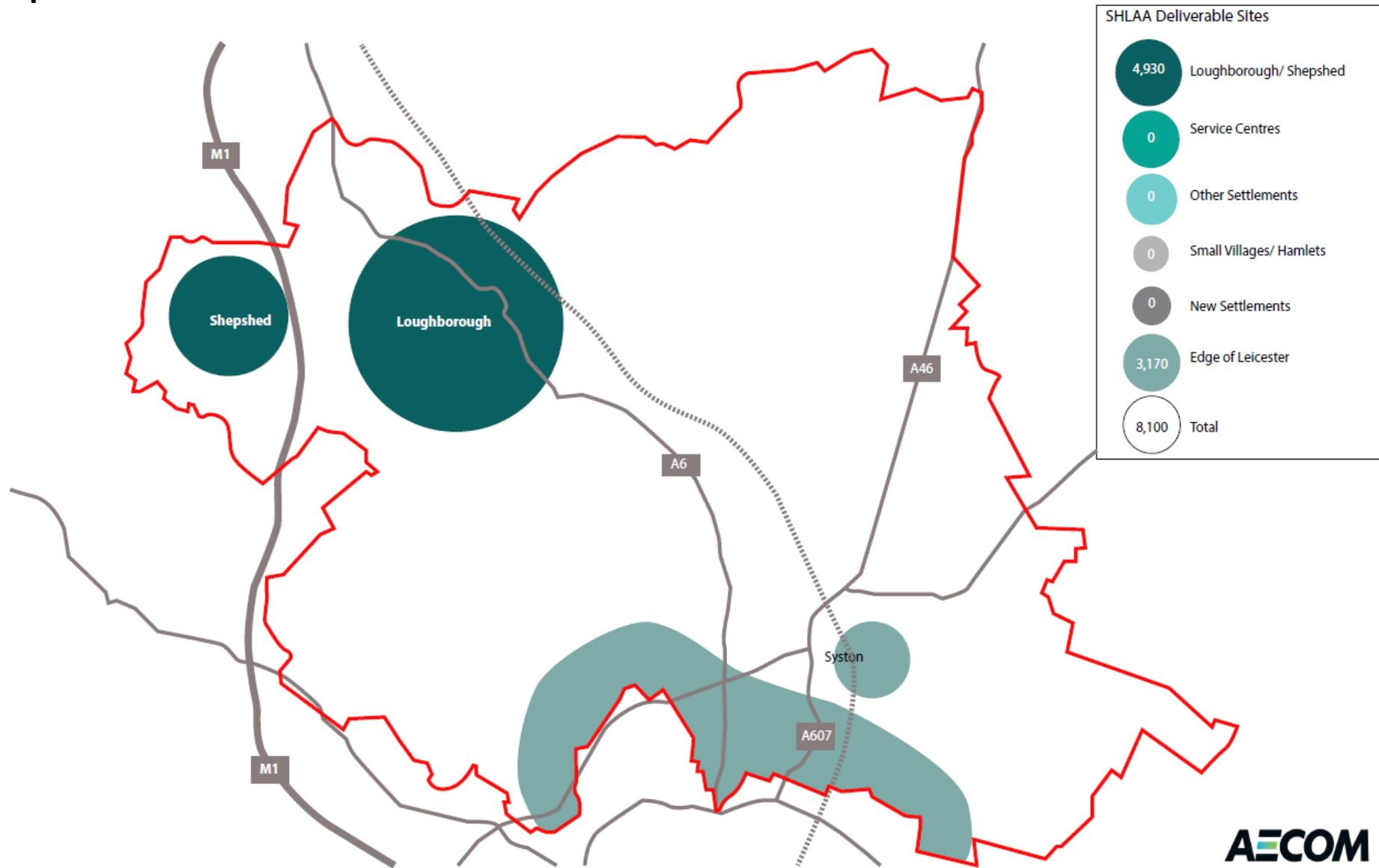
It is our intention to identify how different levels of growth would affect these areas and how that then translates into an overall picture for the borough as a whole.

<b>Scenario A - To be found figure 8,100</b>							
	Edge of Leic	Lough / Shepshed	Service Centre	Others	Hamlets	New Settlements	Total
SHLAA Capacity	3,346	8,274	4579	2966	735	3,000	22,913
A 1. Leicester & Loughborough	3350	4750	0	0	0	0	8,100
A. 2. Leicester & Loughborough + Service Centres	3350	2750	2,100	0	0	0	8,100
A3.Settlement Hierarchy distribution	3350	2100	1550	1100	0	0	8,100
A4. Proportionate	1067	3590	2458	748	235	0	8,098
A5. Leicester & Loughborough + New Settlement	3350	1,750	0	0	0	3,000	8,100
A6. Leicester & Loughborough + SC + New Settlement	3350	1000	750	0	0	3,000	8,100

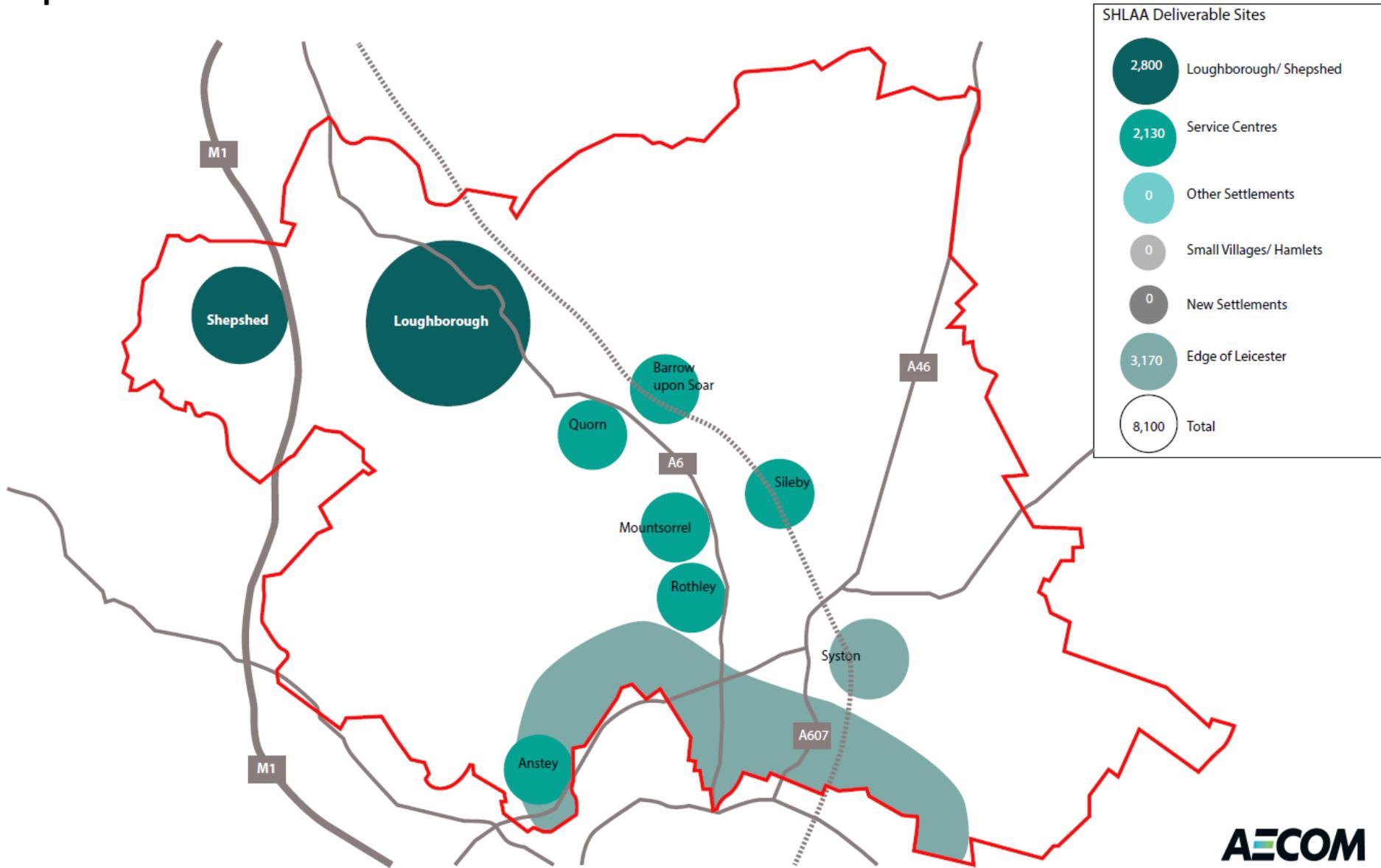
<b>Scenario B - To be found figure 15,700</b>							
	Edge of Leic	Lough / Shepshed	Service Centre	Others	Hamlets	New Settlements	Total
SHLAA Capacity	3,346	8,274	4579	2966	735	3,000	22,913
B2. Leicester & Loughborough + Service Centres	3350	8270	4080	0	0	0	15700
B3.Settlement Hierarchy distribution	3350	7000	4350	1000	0	0	15700
B4. Proportionate	2068	7050	4579	1546	457	0	15700
B 6. Leicester & Loughborough + SC + New Settlement	3350	7000	2350	0	0	3000	15700

<b>Scenario C – Standalone Settlement</b>							
	Edge of Leic	Lough / Shepshed	Service Centre	Others	Hamlets	New Settlements	Total
SHLAA Capacity	3,346	8,274	4579	2966	735	3,000	22,913
C1. Standalone new settlement	335	210	155	110	0	8000-10000	8,810 - 10,810

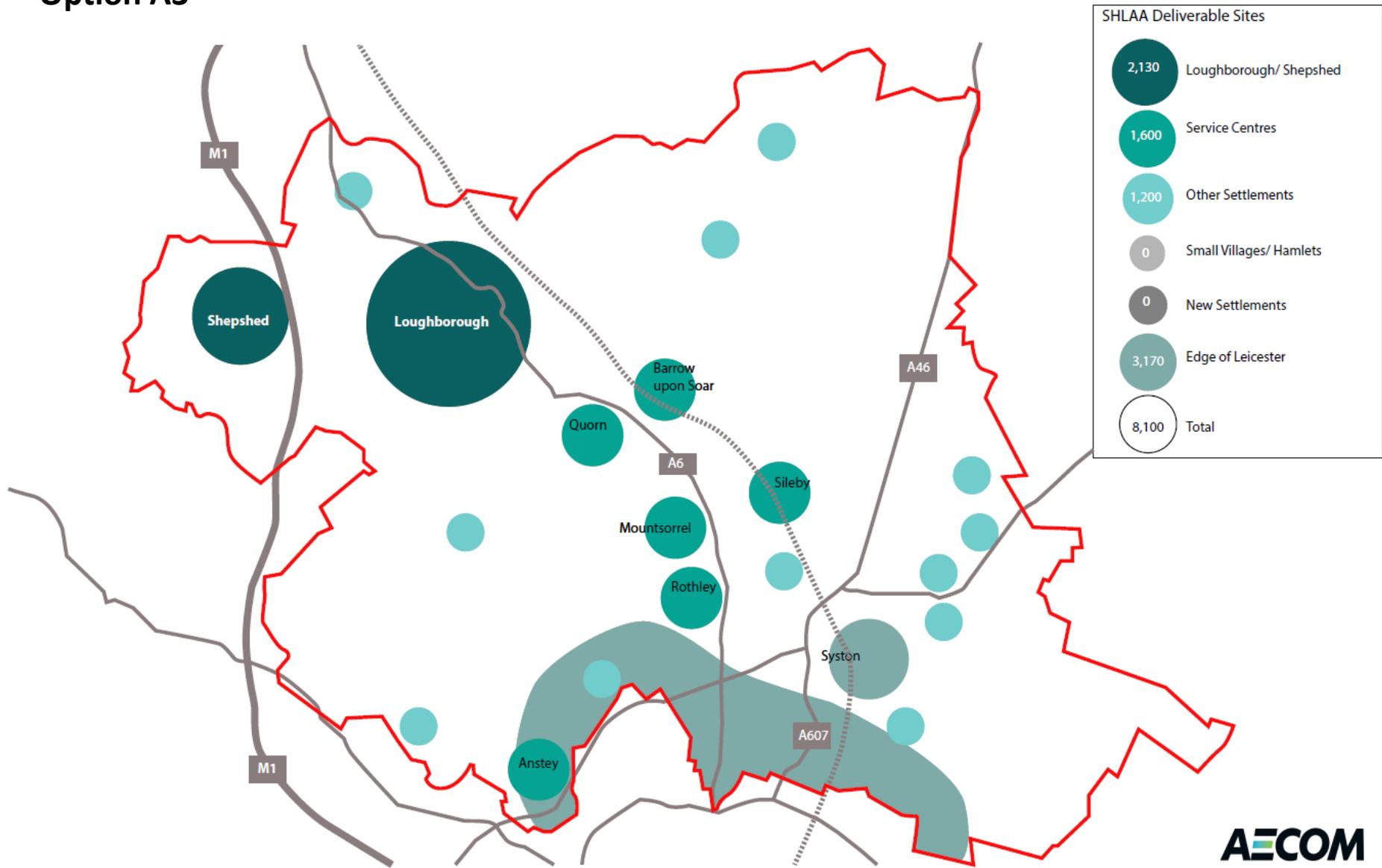
# Option A1



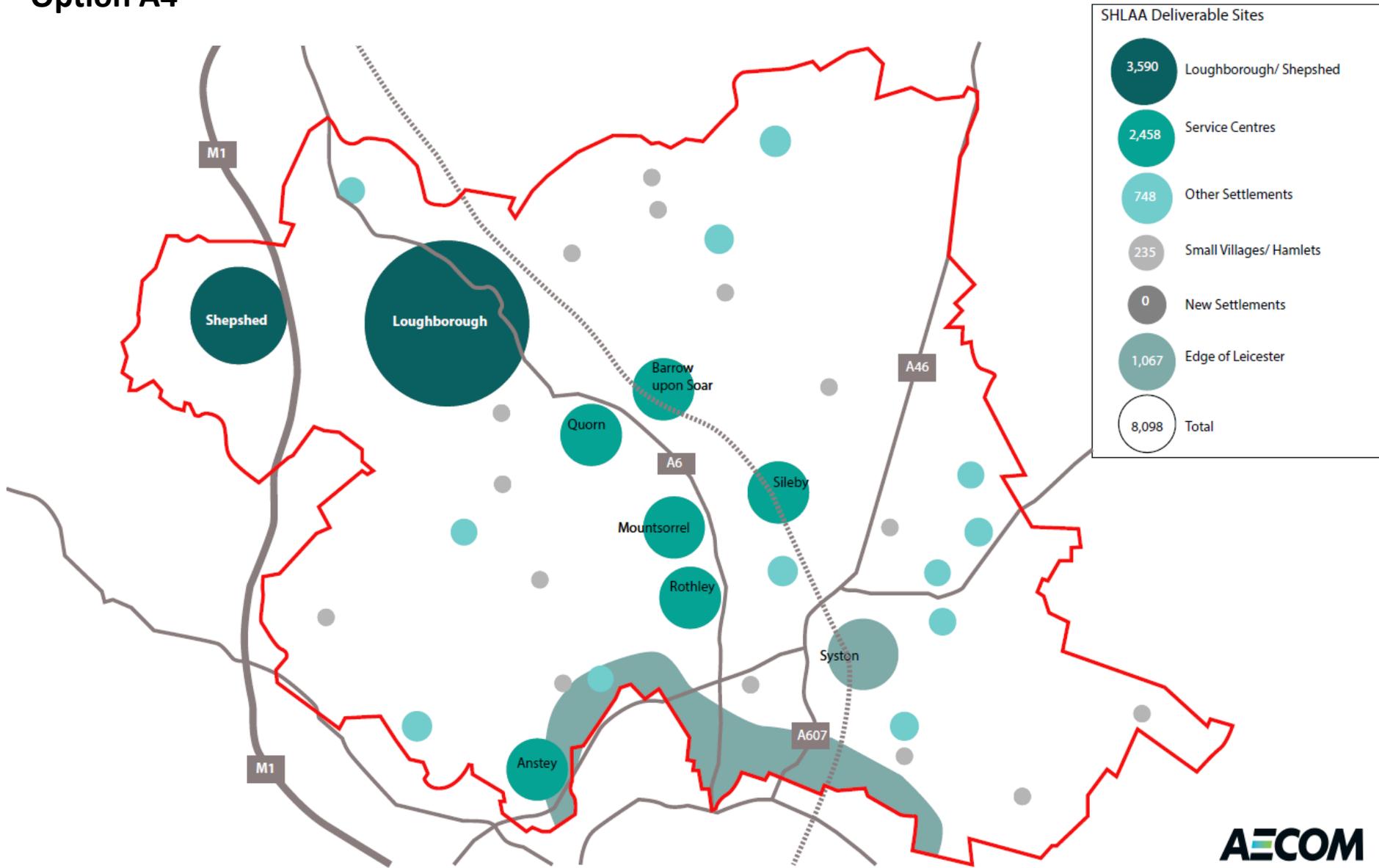
# Option A2



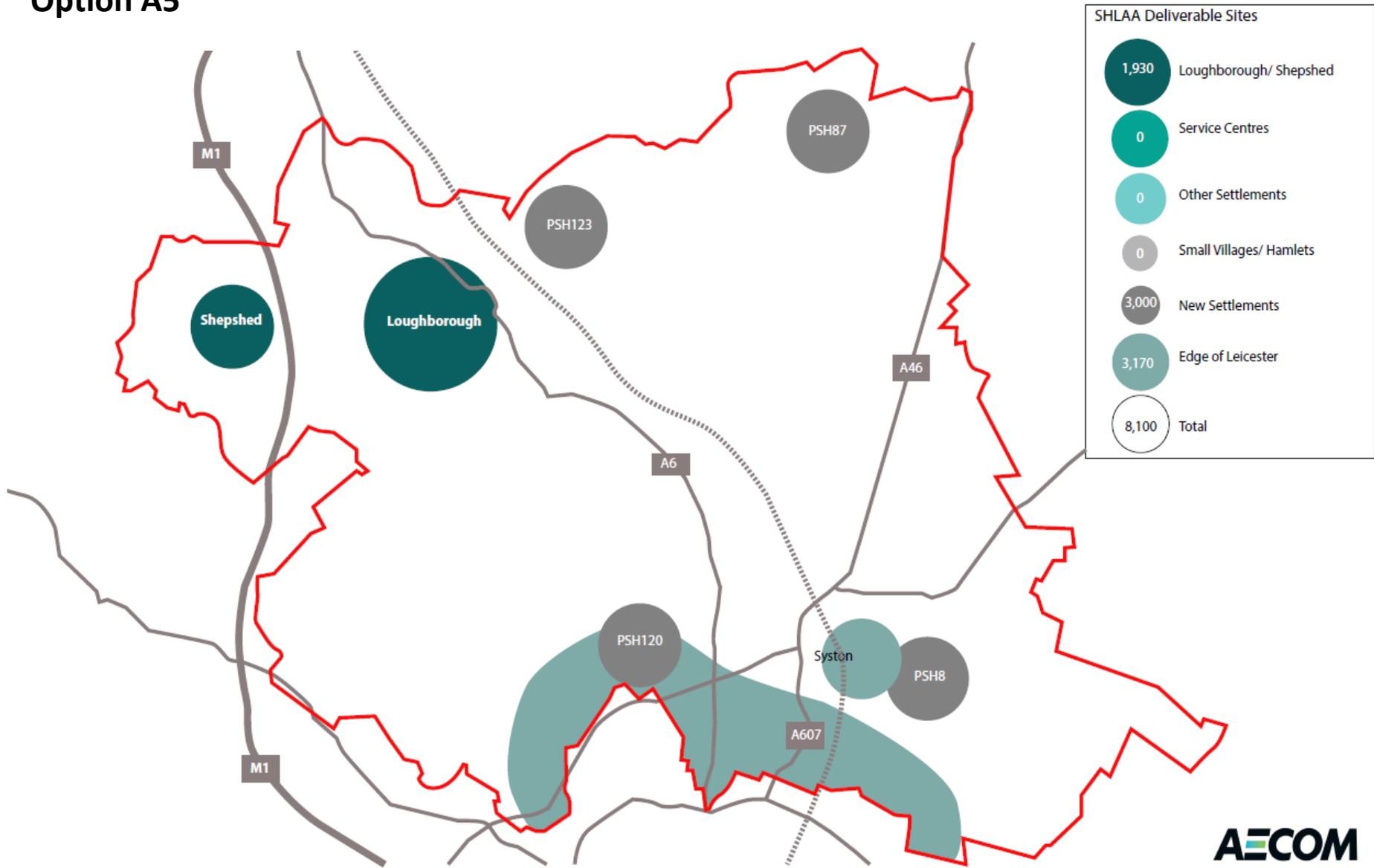
# Option A3



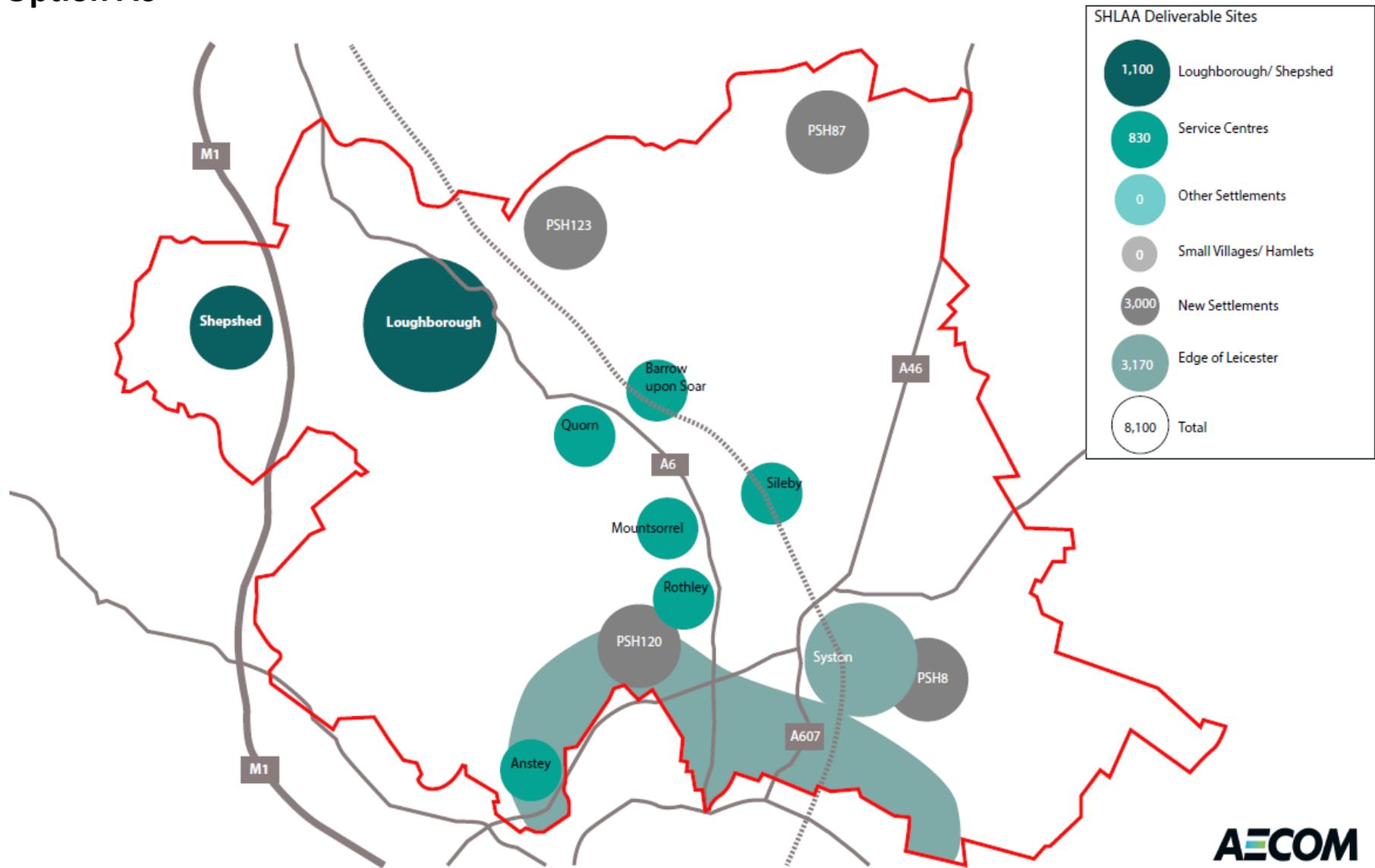
# Option A4



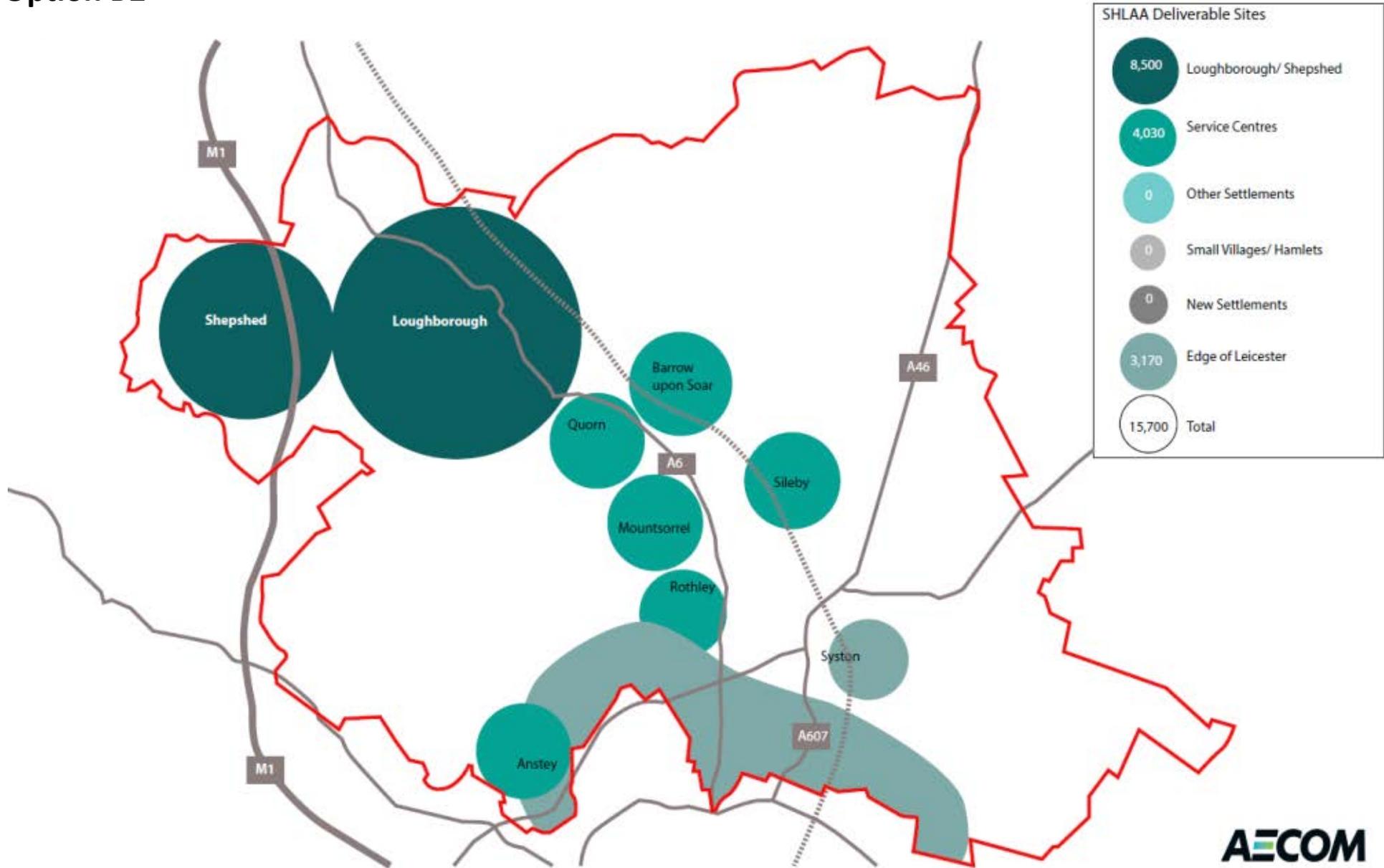
# Option A5



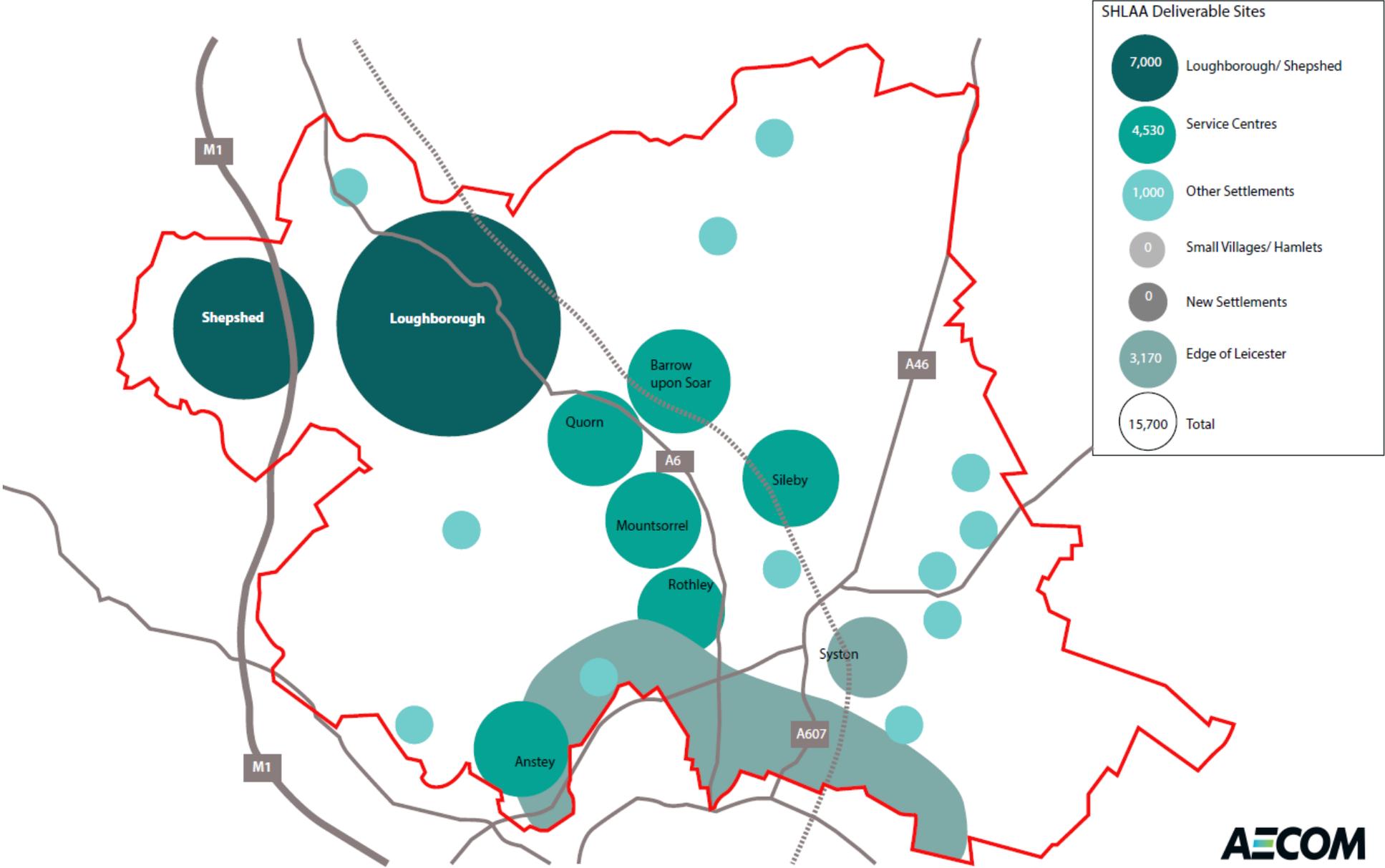
# Option A6



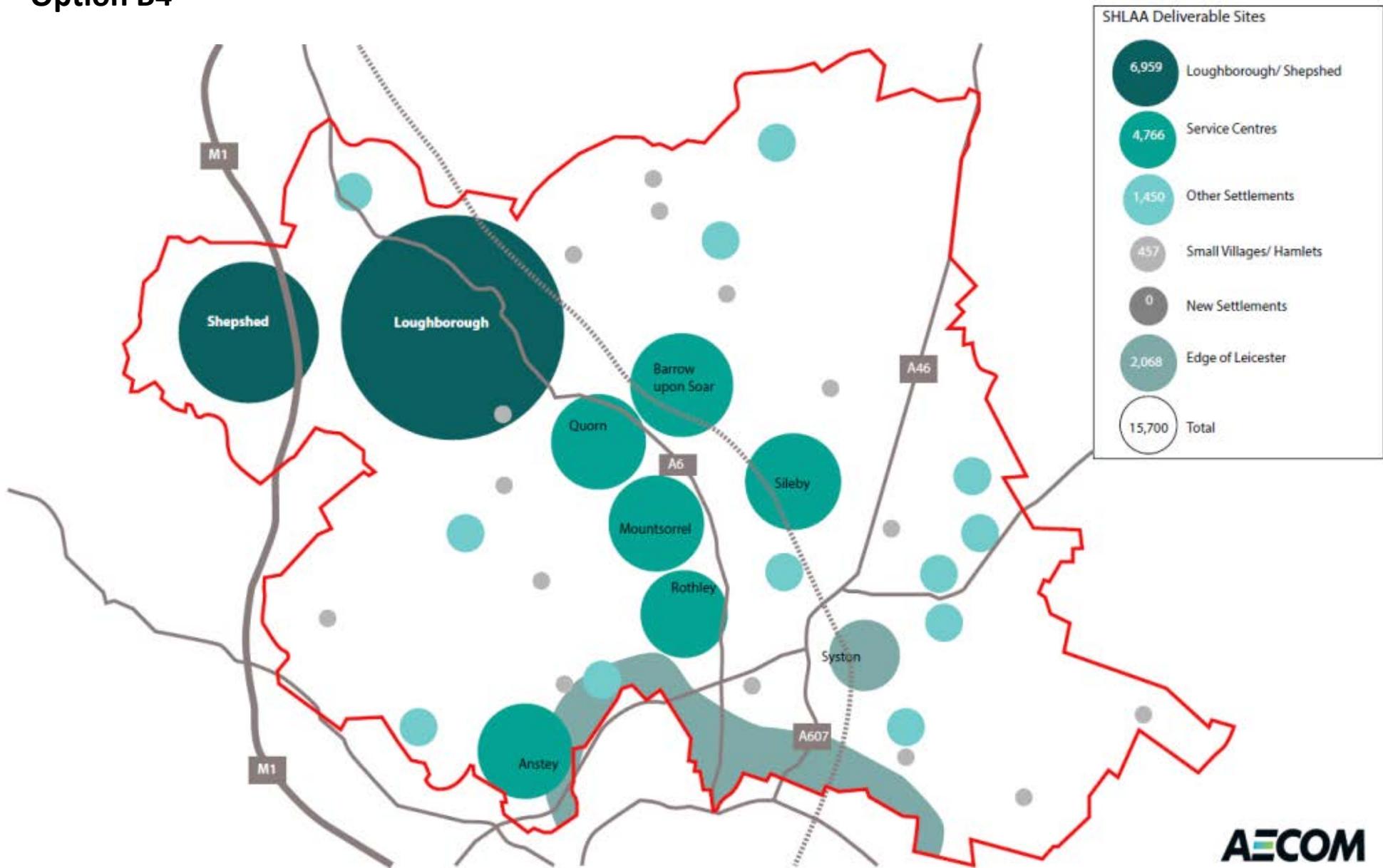
# Option B2



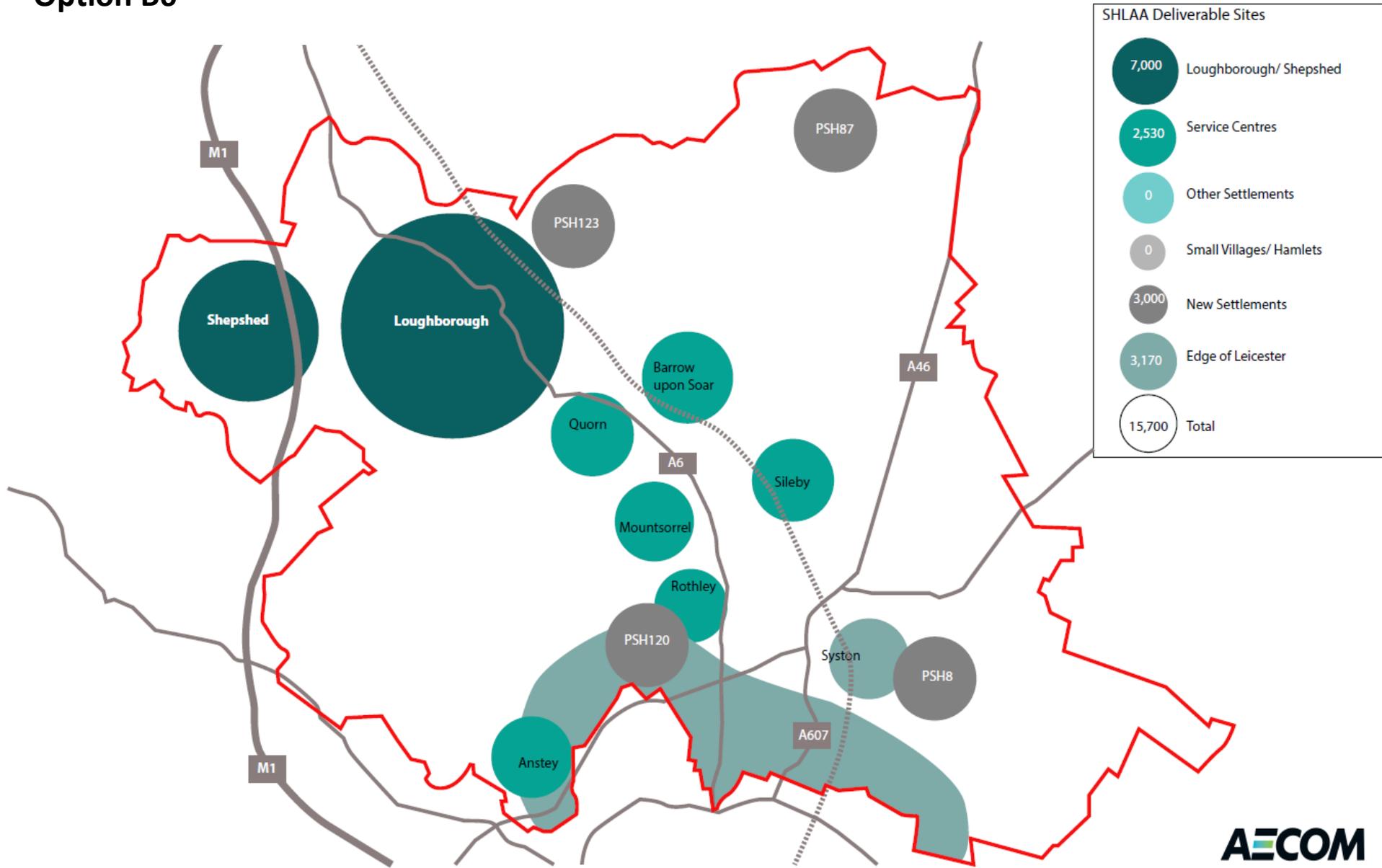
# Option B3



# Option B4



# Option B6



# Option C1



## **APPENDIX B: APPRAISAL OF HIGH-LEVEL OPTIONS FOR HOUSING GROWTH**

### **Introduction**

This appendix presents the methodology and appraisal findings relating to the assessment of eleven reasonable alternative options that have been identified by the Council alongside AECOM.

Each option is introduced in Section 4 of this interim SA Report and is described in detail / illustrated on a series of map in **Appendix A**.

The options are as follows:

#### Scenario A – 8100 homes to be delivered:

- A1. Growth focused at Leicester PUA & Loughborough / Shepshed
- A2. Growth focused at Leicester PUA & Loughborough / Shepshed and Service Centres (meaning a lower level of growth at Loughborough and Shepshed compared to option 1 )
- A3. Settlement Hierarchy distribution
- A4. Proportionate distribution of development
- A5. Growth focused at the Leicester PUA & Loughborough & new settlements
- A6. Growth focused at Leicester PUA & Loughborough & Service Centres & new settlements

#### Scenario B – 15700 homes to be delivered:

- B2. Growth focused at Leicester PUA & Loughborough / Shepshed and Service Centres
- B3. Settlement Hierarchy distribution
- B4. Proportionate distribution of development
- B6. Growth focused at Leicester PUA & Loughborough & Service Centres & new settlements

#### Scenario C – Standalone new settlement

- C1. Standalone new settlement

## Methodology

The appraisal will identify and evaluate ‘likely significant effects’ on the baseline / likely future baseline associated with each alternative, drawing on the sustainability topics and objectives as a methodological framework.

The task of forecasting effects can be challenging due to:

- The high level nature of the alternatives under consideration;
- Being limited by definition of the baseline and (in particular) the future baseline;
- The ability of developers to design out/mitigate effects during the planning application stage.

In light of this, where likely significant effects are predicted this is done with an accompanying explanation of the assumptions made.<sup>3</sup>

It is important to note that effects are predicted based upon the criteria presented within the SEA Regulations.<sup>4</sup> So, for example, account is taken of the nature of effects (including magnitude, spatial coverage and duration), the sensitivity of receptors, and the likelihood of effects occurring as far as possible.

The potential for ‘cumulative’ effects is also considered. These effect ‘characteristics’ are described within the appraisal as appropriate under each sustainability topic. A table is also presented under each topic summarising the predicted effects and their characteristics (i.e. namely whether they are significant or not).

For each option, one of the following symbols has been allocated for each SA objective.

Where there is uncertainty, the nature of such effects has been identified. For example, an uncertain negative effect would be recorded if there is a chance that negative effects could occur but this is dependent upon unknown factors. It may still be possible to rule out significant effects though, and so the unknown effect may be minor or potentially significant.

Effects Significance	Effects symbol
<i>Significant positive effects</i>	++
<i>Minor positive effects</i>	+
<i>Neutral effects</i>	0
<i>Minor negative effect</i>	-
<i>Significant negative effect</i>	--

Uncertain effects	Effects symbol
<i>Uncertain significant positive effect</i>	++ <sup>?</sup>
<i>Uncertain minor positive effect</i>	+ <sup>?</sup>
<i>Uncertain effects</i>	?
<i>Uncertain minor negative effect</i>	- <sup>?</sup>
<i>Uncertain significant positive effect</i>	++ <sup>?</sup>

<sup>3</sup> As stated by Government Guidance (The Plan Making Manual, see <http://www.pas.gov.uk/pas/core/page.do?pageld=156210>): "Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification."

<sup>4</sup> Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004

### Settlement level effects / overall effects

Where appropriate and possible, the effects have been broken down by the different spatial areas where they would occur (i.e. The different levels of the settlement hierarchy outlined below).

- Leicester Urban Area
- Loughborough / Shepshed.
- Service Centres
- Other Settlements
- Smaller villages and hamlets
- New Settlements
- Large standalone settlement

The overall effects across the borough are then identified, taking into account the effects that have been predicted in different areas across the Borough.

The overall effects are not simply determined through a process of 'adding-up' positives and negatives; rather it is a professional judgement of how significant the overall effects would be for the Borough, taking into account the effects identified locally.

For example, whilst effects might be significant at a local scale at particular settlements (for example the loss of a playing field), the effects on the baseline overall may not be significant overall should there be positive effects (enhancements) or neutral effects elsewhere across the Borough.

An explanation is given to justify the significance scores identified for each option both at the settlement level and for the borough as a whole.

### Assumptions

There are some consistent assumptions applied across the appraisals:

As there are no development sites identified for any of the options, some of the effects are not certain, but a precautionary approach has been taken to the assessment of effects.

At lower levels of growth there will be greater flexibility in the choice of sites that can be allocated to deliver the housing targets. Similarly, the availability of sites and capacity of land in different settlements will influence flexibility.

It is assumed that growth would be split relatively evenly at each level of the settlement hierarchy (for example, if 1000 homes are allocated to the service centres, each could be expected to accommodate 200 homes each). However, it is acknowledged that this may not be the case in reality dependent upon a range of other factors.

It is presumed that the majority of committed development will be built out in the plan period, and therefore forms part of the projected baseline position. The effects of the options beyond this baseline position form the basis of this appraisal.

## Landscape

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Growth at the service centres would most likely be at the edge of these settlements. The effects would depend upon the level of growth in different service centres. The broad issues and opportunities at each service centre are discussed below.

At Barrow upon Soar, development could encroach into the surrounding countryside. However, it ought to be possible to accommodate modest growth without affecting the character of the settlement significantly. There should be no significant issues of coalescence. However, at higher levels of growth, the character of the approach to the settlement could be affected negatively. Development at certain sites could also present opportunities to deliver enhancements in a green infrastructure enhancement zone<sup>5</sup>.

At Quorn, there is a potential area of separation between Quorn and Loughborough. Development here could therefore have effects on the function of this land. However, this area has been identified as having medium-high landscape capacity.

At Sileby, identified development opportunities (in combination) could be of a magnitude to significantly alter the character of the surrounding landscape. Lower levels of growth could be accommodated without encroaching into the countryside substantially.

Between Mountsorrel and Rothley (and between Rothley and Birstall) there are committed developments that could already close the gap between these settlements. Further development to the north west of Cross Hedge could contribute to further narrowing, though only marginally. There is an Area of Local Separation proposed to the west of Rothley in the gap between Rothley Ridgeway, and new development has the potential to affect the setting of these two settlements.

Development at Anstey would present an opportunity to deliver enhancements in a green infrastructure enhancement area. The landscape capacity to the east, south and south west of Anstey is classified as 'medium'. Consequently, the effects here would be anticipated to be **neutral** or perhaps positive (providing that growth was relatively modest).

For options A1 and A5, no growth would occur in the service centres, and so the effects are **neutral**.

Option A2 and A4 (to a lesser extent) would deliver the most growth to the service centres, which would be more likely to lead to negative effects. However, it should be possible to accommodate growth, even at a higher level, but minor effects on the function of the landscape could be generated where there are areas of local separation such as Quorn and between Mountsorrel / Rothley. As described above, there is also potential for green infrastructure enhancement at several settlements<sup>3</sup>, which ought to offset the negative effects somewhat. Overall, options A2 and A4 are predicted to have a **minor negative effect**. Option A3 is predicted to have **uncertain minor negative effects** as the lower amount of growth would allow for greater flexibility and would minimise the need to encroach into Areas of Local Separation. Option A6 would deliver the lowest level of growth to settlements, and so the likelihood and the magnitude of effects occurring at any of the service centres would be lower, but still exist. Therefore, an uncertain minor negative effect is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 would deliver a much higher level of growth than any option under Scenario A. Therefore, greater amounts of greenfield land would need to be released. It may still be possible to avoid significant effects for some of the service centres given the availability of less sensitive land. However, at other settlements, significant effects could be generated. . Therefore, significant negative effects are predicted. For option B6, a **minor negative effect** is also predicted, though this would be less prominent than options B2,B3 and B4.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres as there would be a very low level of growth involved for option C1. This ought to ensure better protection for these areas, which might otherwise be subject to more substantial growth. However, the potential for enhancement through new development would be lower.

<sup>5</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

## Landscape

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Development within the urban areas of Shepshed and Loughborough is unlikely to affect landscape character. However, each option would involve a degree of growth at the urban fringes. In Shepshed, the capacity of landscape is mixed, with the south being broadly classified as low capacity, whilst to the west along 'Black Brook' the capacity is determined to be medium<sup>6</sup>.

This area has also been identified as a green infrastructure enhancement zone<sup>7</sup> and development could be the mechanism for achieving such improvements. Consequently, modest growth in these locations ought to have mostly neutral effects.

To the south west of the Loughborough urban area, site options that lie adjacent to the Charnwood Forest are within zones of low and low medium landscape capacity. Development here would be likely to have negative effects upon the landscape character of the Charnwood Forest. To the south east of the urban area there are parcels of land with higher landscape capacity, but these form part of a potential area of local separation between Loughborough and Quorn. Therefore, development here may also have potential for negative effects

Option A1, which involves the highest level of growth, is more likely to encroach upon land to the south of Loughborough and / or the south of Shepshed (which are of greater sensitivity to change). Consequently, the potential for negative effects is higher. There ought to be some flexibility to avoid the most sensitive areas and to deliver lower density development as well as enhancing green infrastructure. However, a precautionary approach is taken so potential **significant negative effects** are predicted (Though there are uncertainties).

For options A2, A3, A4 and A5, the effects are likely to be of a lesser magnitude, as the amount of greenfield land release required would be lower. Therefore, it ought to be possible to avoid the more sensitive areas of landscape and / or deliver more sympathetic developments. Therefore, the effects would not be predicted to be significant. A **minor negative effect** is predicted at this stage, as it is not clear which sites would be involved.

Option A6 would involve a lower level of growth than options 1-5, and could be delivered without encroaching onto the most sensitive areas. Depending upon site location, it may also be possible to enhance green infrastructure. Therefore, An **uncertain negative effect** is predicted on balance.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Each of the options at this scale of growth would require substantial release of greenfield land around Shepshed and Loughborough. At this scale of growth it would be almost certain that the most sensitive areas of landscape could be affected and therefore **significant negative effects** are predicted. The effects would be most prominent for option B2, which involves the highest level of growth.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted as there would be a very low level of growth involved for option C1. This ought to ensure better protection for these areas, which might otherwise be subject to more substantial growth. However, the potential for enhancement through new development would be lower.

### PUA:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Growth within the PUA will lead to development in the urban areas of Thurmaston, Birstall and Syston. The effect on landscape as a result of such development is likely to be neutral given that the urban area is less sensitive to change. However, to meet the housing targets within options A1, A2, A3, A5 and A6, there would also be a need to release greenfield land on the urban fringes. This might include land classified as Green Wedge adjacent to the A5630 and / or land adjacent to existing residential areas at Hamilton. The loss of such landscape function is considered to be a minor negative effect for options A1, A2, A3, A5 and A6, which involve maximised growth in the PUA.

<sup>6</sup> Borough of Charnwood Landscape Character Assessment – July 2012

<sup>7</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

## Landscape

At Syston, higher levels of growth could involve a Green Wedge and potential Area of Separation between Syston and the Leicester Urban Area (Thurmaston). At higher levels of growth, it may be necessary to encroach into this area, which could effectively lead to further coalescence of settlements. This could be a significant negative effect in this location.

A smaller scale release of land to the east of the settlement (where landscape capacity is identified as medium-high) would be less of an issue. Development at certain sites could also present opportunities to deliver enhancements in a green infrastructure enhancement zone<sup>5</sup>.

Therefore, at this stage an **uncertain significant negative effect** is predicted overall for options A1, A2, A3, A5 and A6.

For option A4, the effects are predicted to be a **minor negative effect**, as the scale of growth is such that greenfield land loss ought to be lower and easier to avoid significant effects.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve the same level of growth as options A1, A2, A3, A5 and A6, therefore an **uncertain significant negative effect** is predicted. Option B4 involves a lower level of growth and so it ought to be possible to avoid the loss of sensitive land, and the overall scale of greenfield loss would be lower. Consequently, there is more uncertainty about whether negative effects would occur.

A **minor negative effect** is therefore predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres as there would be a very low level of growth involved for option C1. This ought to ensure better protection for these areas, which might otherwise be subject to more substantial growth. However, the potential for enhancement through new development would be lower.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 and A6 do not involve growth in other settlements, and so a **neutral effect** is predicted for each. For option A3, there would be growth across the other settlements, whilst for option A4 there would also be growth at smaller villages and hamlets, so the amount at other settlements would be lower.

Development at the other settlements would have mixed effects upon landscape. At some settlements, it ought to be possible to accommodate a modest amount of development without majorly affecting the surrounding landscapes. For example at Thrussington, Burton-on-the-Wolds and to a lesser degree at Hathern.

At other settlements though, there are site development options falling with existing Areas of Local Separation. Development here would have the potential to significantly affect landscape character and contribute to coalescence of settlements. For example, development could occur on land between Rearsby and East Goscote, closing the gap between these villages. Likewise, there are a number of site opportunities that fall within an Area of Separation between East Goscote and Queniborough, and Syston and Queniborough. In combination, growth in these areas could lead to negative effects upon landscape character in these parts of the borough.

For option A3, a **potential significant negative effect** is predicted, as it might be necessary to develop in Areas of Local Separation.

For option A4, the effects in the other settlements would be lesser, and so significant effects here might be better avoided. Consequently, only **minor negative effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth at the other settlements and so **neutral effects** are predicted. Option B3 involves similar amounts of growth in the other settlements compared to option A3. Therefore, **uncertain significant negative effects** are predicted too. For B4 the level of growth is higher still, and therefore the potential for **significant negative effects** is more certain.

## Landscape

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the other settlements as there would be a very low level of growth involved for option C1. This ought to ensure better protection for these areas, but the levels of growth here would not be anticipated to be substantial anyway under the current policy approach.

### **Small Villages and Hamlets**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth is small under option A4, but in the context of these settlements, changes to the character of the landscape could be quite dramatic, reducing the rural feel. The effects would be dependent upon location, scale and mitigating measures, but in some villages within Charnwood Forest and the open countryside, there could be localised effects on landscape. Cumulatively, this is predicted to have **minor negative effects** with regards to the hamlets and villages. The effects are not predicted to be significant, as the wider landscape should remain untouched and a degree of openness would be retained.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth for B4 is twice as high compared to A4 and therefore there is greater potential for **significant negative effects** to be generated. However, this is not a certainty dependent upon where growth is located and designed. Therefore, uncertainties are recorded.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

A new settlement at Wymeswold / Hoton sits atop a plateau, and is therefore less likely to be visible from distance. Though the site sits within the countryside it is not particularly sensitive in character, and partly consists of a disused airfield. Provided that green infrastructure is incorporated into development, negative effects are unlikely to occur.

At Cotes, a large scale development would occur in the open countryside, which would be visible from a number of locations particularly along the northern parts of the River Soar Valley and could have some negative effects on landscape character. In combination with a new settlement at Wymeswold / Hoton, the rural nature of this part of the borough could be eroded. However, large areas of open space would still remain, so the effects would not be likely to be significant.

A new settlement at Barkby could have minor negative effects on landscape character, as it would alter the setting of Barkby. The landscape here is identified as broadly 'medium' capacity<sup>8</sup>, so significant effects ought to be possible to avoid. There are also green infrastructure enhancement zones nearby<sup>9</sup> which could present opportunities for improvement.

A new settlement at Thurcaston could 'close the gap' between the village of Thurcaston and the area between Birstall and Rothley (i.e. land allocated for strategic growth). Minor negative effects are predicted.

In combination, development at the new settlements (options A5 and A6 only) is predicted to have a **minor negative effect**. This reflects the potential for minor negative effects at Thurcaston and Barkby, but the lower likelihood and magnitude of negative effects occurring in Wymeswold and Cotes.

As large scale strategic developments, each of the new settlements could also have the potential to incorporate substantial amounts of green infrastructure, which ought to help mitigate negative effects and secure enhancements.

<sup>8</sup> Borough of Charnwood Landscape Character Assessment – July 2012

<sup>9</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

## Landscape

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B6 involves the same level of growth as options A5 and A6 and is therefore also predicted to have a **minor negative effect**.

Options B2, B3 and B4 are predicted to have **neutral effects** as there would be no growth at new settlements.

### Scenario C (Discussion of options for delivering a standalone large settlement)

The effects of a new settlement would be dependent upon the location. However, regardless of the area that a new settlement is located, there would be a substantial loss of green space and a total change in terms of the character of the area. The extent of effects would depend upon the sensitivity of the landscape to change and the potential for mitigation and enhancement. To the west of Shepshed a new settlement would only be separated from the town by the Black Brook, and so the open nature of the countryside in this location would be eroded.

To the east of Loughborough in the open countryside development would take place within 'the Wolds' character area, which is elevated and has a remote atmosphere<sup>9</sup>. The strength of the character and its current condition is considered moderate. The potential for the remoteness of the area to be eroded should be taken into account, as well as the elevated nature of some areas. A new settlement would be expected to be designed with extensive landscaping, but nevertheless negative effects are likely.

To the north east of the PUA in the 'High Leicestershire' character area the landscape character is considered to be strong, with a sense of remoteness and little modern expansion.

Development of a large new settlement would be likely to significantly alter the countryside in this location and so significant negative effects are possible.

## Overall effects

### Scenario A (Discussion of options for delivering 8,100 homes)

Option A1 is predicted to have negative effects in Loughborough / Shepshed and the PUA (which could potentially be significant in these locations depending upon sites developed). However, there are neutral effects predicted at all other settlements across the borough, which helps to 'offset' the effects at Loughborough, Shepshed and the PUA from a borough-wide perspective. Consequently, only a **minor negative effect** is predicted overall.

Option A2 is also predicted to have a **minor negative effect** overall. However, the negative effects in Loughborough would be lower, and would be generated at the service centres to a greater extent compared to option A1.

Option A3 could generate significant negative effects for the other settlements, and potentially significant negative effects at the PUA (but there are uncertainties dependent upon the sites that are developed). The likelihood of negative effects occurring at the service centres and Loughborough is lower though. Overall, the **effects are considered to be significant**, as there could be negative effects at multiple settlements across the district, and in some areas these could be significant.

Option A4 is predicted to have **significant negative effects** overall. Though no significant effects are predicted in any particular settlement, there are minor negative effects across all the settlements in the borough. Cumulatively, this is considered to be significant, as the overall character of the borough as a whole would be likely to decline.

Options A5 and A6 are predicted to have **minor negative effects** overall. The effects would be mostly neutral, or potentially minor for the majority of the borough, but potential significant effects are predicted at the PUA. On balance, the effects are predicted to be minor from a borough-wide context.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 is predicted to have a **significant negative effect** overall. The effects in Loughborough would likely be substantial given the need to develop adjacent to Charnwood Forest and the loss of a number of sites at the urban fringe

The effects at Loughborough would still be significant for Option B3, but to a lesser extent than option B2. However, this option would also generate significant negative effects at the other settlements, and potential significant negative effects at the PUA and the service centres.

## Landscape

A **significant negative effect** is predicted overall, with this option also performing worse than option B2.

Option B4 would have similar effects to option B3, though the effects at the PUA would possibly be lower. A **significant negative effect** is still predicted.

Option B6 is also predicted to have a **significant negative effect** overall. Again, effects at Loughborough would most likely be significant, but there would also be minor negative effect at the service centres and at new settlements. Given that two new settlements would be close to the PUA (Barkby and Thurstaston), there could also be cumulative effects on landscape in these areas.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Overall, Option C1 would avoid negative effects upon landscape character across much of the Borough. This is positive in respect of the prevention of coalescence between settlements and urban areas, the protection of Charnwood Forest and the character rural settlements. However, a large new settlement would generate negative effects on landscape character, which could be significant depending upon the location. Overall, a minor negative effect is recorded. Whilst there is potential for more profound effects in a specific area, this would be offset somewhat by protection across a range of other sensitive landscapes.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A - 8,100 homes</b>							
A1: Urban intensification	0	--?	--?	0	0	0	-
2A. Urban focus	-	-	--?	0	0	0	-
A3. Settlement Hierarchy	- ?	-	--?	--?	0	0	--?
A4. Proportionate growth	-	-	-	-	-	0	--
A5. Urban intensification and new settlement	0	-	--?	0	0	-	-
A6. Urban focus and new settlement	- ?	- ?	--?	0	0	-	-
<b>Scenario B - 15,700 homes</b>							
B2. Urban focus	--	--	--?	0	0	0	--
B3. Settlement Hierarchy	--	--	--?	--?	0	0	--
B4. Proportionate growth	--	--	-	--	--?	0	--
B6. Urban focus and new settlement	-	--	--?	0	0	-	--
<b>Scenario C - Standalone new settlement</b>							
C1. Large scale new settlement	0	0	0	0		--	-

## Biodiversity and nature conservation

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 do not propose growth in the service centres, and therefore effects are predicted to be **neutral**. For option A4, and to a lesser extent options A2 and A3, there would be growth at the service centres. Assuming a relatively even distribution of growth between the service centres, there is potential for negative effects on biodiversity in some settlements. This could be localised effects on wildlife through the loss of trees and hedges for example, or could be disturbance to designated habitats and ecological networks. Whilst there would be unlikely to be direct effects on designated sites in / around any of the service centres, growth along the Soar Valley could potentially disturb species movement and / or impact the wildlife corridor function of the Soar Valley. This is more likely on developments that are closer to sites of local nature importance and SSSIs, such as close to Quorn and Mountsorrel. Conversely, growth in Sibley is less likely to have significant effects on designated sites. The quantum of growth under option A4 could lead to negative effects due to the need to release a greater number of sites for development. The effects would be less prominent for Options A2 and A3, as the overall level of growth at each settlement would be lower. Nevertheless, a **minor negative effect** is still predicted. For option A3, the level of growth is sufficiently lower, that negative effects would be less likely to occur. Therefore only an **uncertain minor negative effect** is predicted. For option A6, the effects are predicted to be **neutral** as there would be greater scope to avoid sites in close proximity to sensitive habitats, and the level of growth would be less likely to put pressure on ecological networks.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B6 would involve approximately the same level of growth as option A4, and thus a **minor negative effect** is predicted. Options B2, B3 and B4 all involve substantially more growth along the Soar Valley at the Service Centres. This could put additional pressure on biodiversity by disturbing ecological corridors. The potential for significant negative effects therefore exists, but it ought to be possible to mitigate effects by ensuring that growth implements green infrastructure. In line with the precautionary principle, options B2, B3 and B4 are therefore predicted to have **significant negative effects**.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres as there would be a very low level of growth involved for option C1. This ought to ensure better protection for biodiversity as there would be less disturbance and loss of greenspace. However, the potential for enhancement through new development would be lower too.

### Loughborough / Shepshed:

#### Scenario A (Discussion of options for delivering 8,100 homes)

For option A1, the level of growth is the highest (for scenario A), and could potentially necessitate the release of land in the more sensitive areas. This might include sites in Shepshed and development adjacent to the Charnwood Forest (part of which is also a woodland SSSI). The potential for effects here would be significant, as there could be disturbance to species (light), increased visitor pressure and the potential to fragment habitat. However, this level of growth still allows for some flexibility in site choice and low density sensitive development. Therefore, a **minor negative effect** is predicted.

The next highest growth option under this scenario (Option A2 and A4) would allow more choice over the potential sites to be developed to meet this need. This would perhaps allow the more sensitive sites (to the south west of Loughborough) to be avoided. However, there would still be a need to develop sites in the urban area of Loughborough as well as a variety of sites around Shepshed. Development within the inner core of Loughborough would not be anticipated to have negative effects on biodiversity, as there are no major sites or ecological networks in this area. However, there are sensitivities on the urban area of Shepshed. For example, growth along the Black Brook could affect water quality and / or disturb species reliant upon the water environment. Likewise, development to the south of Shepshed is adjacent to Newhurst Quarry SSSI, and could potentially affect habitats that species utilise. It may be possible to mitigate effects at this level of growth by site avoidance, low density development with elements of green infrastructure. Therefore, **uncertain minor negative effects** are predicted.

The level of growth under options A3, A5 and particularly A6 would allow the more sensitive sites to be avoided, or lower density (more sympathetic) developments to be created. Therefore, options 3 and 5 (involving between 1750-2100 dwellings) are predicted to have **neutral effects**. For option A6, **neutral effects** are predicted as the level of growth is very low.

## Biodiversity and nature conservation

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 would involve maximising sites in Loughborough.

This would require the release of land at sensitive areas including adjacent to Charnwood Forest and along the Black Brook. It may be more difficult to implement low density sensitive design at this scale of growth, and cumulative effects would be more prominent. Consequently, a **significant negative effect** is predicted. Options B3, B4 and B6 would involve a slightly lower level of growth compared to option B2 (1500 less), but this is still substantially more than for any options under scenario A. It may be possible to achieve slightly more sensitive developments through densities and avoidance, but the effects are still likely to be significant (though less so than option B2).

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for Loughborough / Shepshed as there would be a very low level of growth involved for option C1. This ought to ensure better protection for biodiversity as there would be less disturbance and loss of greenspace. However, the potential for enhancement through new development would be lower too.

### **PUA:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 all propose the delivery of 3350 homes. The likely location of sites would be within and adjacent to the Leicester Urban Area, such as within Thurmaston and adjacent to the City boundary adjacent to the A46. There would also be fairly substantial growth at Syston. The location of the site options in these areas is unlikely to have a significant effect upon designated sites. However, the location of some sites along the River Soar valley (near to Watermead Country Park) could potentially cause disturbance to habitats and species here. These **minor negative effects** are not predicted to be significant given the spread of sites and proximity to sensitive habitats.

Option A4 proposes a lower level of growth, which ought to allow for greater flexibility in the choice of sites, or the application of lower density development. Therefore, a **neutral effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 would have the same effects as options A1, A2, A3, A5 and A6 given that the level of growth is the same. Minor negative effects are predicted. Option B4 proposes double the amount of growth as option A4 (with both options being based on proportionate growth). This presents a greater opportunity for effects, but it is likely they could still be avoided or mitigated. Therefore an **uncertain negative effect** is predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA as there would be a very low level of growth involved for option C1. This ought to ensure better protection for biodiversity as there would be less disturbance and loss of greenspace. However, the potential for enhancement through new development would be lower too.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only options A3 and A4 involve growth in 'other settlements'. Therefore, there are **neutral effects** predicted for each of the other options (A1, A2, A5, A6). Assuming a relatively even split amongst the settlements, it is likely that growth could be accommodated in most locations without having significant effects on biodiversity. This is the case for Barkby, East Goscote, Rearsby, Wymeswold, Cossington, Thrussington and Burton on the Wolds. However, for other settlements there is potential for negative effects due to the potential to disturb habitats in the Charnwood Forest (Newton Linford, for example), or the potential to fragment ecological corridors through the Soar Valley (Thurcaston, Queniborough). For option A3 a **minor negative effect** is predicted overall.

For option A4, the level of growth at other settlements would be slightly lower, with housing dispersed further to smaller villages and hamlets. This spreads the negative effects somewhat and so it ought to be possible to better avoid negative effects. Overall, an **uncertain (negative) effect** is predicted for A4, as the avoidance of effects would be dependent upon the sites selected and the form of development.

## Biodiversity and nature conservation

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 do not involve growth in these settlements, and so **neutral effects** are predicted.

Option B3 would involve similar growth to option A3 at the other settlements, and thus the effects are predicted to be the same (**minor negative effect**). Option B4 involves double the growth compared to option A4 at both the other settlements and the smaller villages and hamlets. Therefore, the effects are more likely to occur and a **minor negative effect** is predicted (rather than an uncertain effect at the lower scale of growth under option A4).

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the other settlements as there would be a very low level of growth involved for option C1. This ought to ensure better protection for biodiversity as there would be less disturbance and loss of greenspace. However, the potential for enhancement through new development would be lower too.

## Small Villages and Hamlets

### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth is very small under option A4, and if spread across the small villages and hamlets should not have any significant effects on biodiversity. The effects would be dependent upon location, scale and mitigating measures, but in some villages within Charnwood Forest and along the Soar Valley, there could be localised effects on species and habitats. The magnitude of effects is very low though, so it is uncertain whether effects would occur in reality (as well as there being potential flexibility in the choice of sites. Consequently, a **neutral effect** is predicted in the context of the baseline position for option A4.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth for B4 is still small in the context of the overall amount of development across the borough, and so effects are unlikely to be significant. However, at a higher scale of growth, the potential for localised impacts could be increased. An **uncertain negative effect** is predicted, as it is unclear which settlements would grow.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

## New / expanded settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Only options A5 and A6 involve new settlements. The effects are therefore **neutral** for options A1, A2, A3, A4.. The effects for options A5 and A6 are the same, as each would involve the same level of growth at new settlements (i.e. 3000 dwellings). There is an assumption for options A5 and A6 that new settlements could be delivered at Cotes, Wymeswold, Thurcaston and Land East of Barkby. At Barkby and Wymeswold, effects on designated sites are unlikely given the relative distance from these sites. Whilst there could be some localised effects on wildlife, it is probably that these could be avoided or mitigated, particularly given the size of the new settlements (which would allow for an element of green infrastructure enhancement. At Thurcaston, the new settlement could potentially intersect an ecological corridor running along Rothley Brook. However, if carefully laid out and designed (with GI enhancement) it ought to be possible to avoid significant negative effects. Nevertheless, an **uncertain (negative) effect** is predicted to reflect the reliance upon these factors.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B6 involves a new settlement, and the level of growth is the same as options A5 and A6. The effects are the same (Uncertain negative effects). Options B2, B3 and B4 would have **neutral effects**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

The effects of a new settlement will be dependent on the location of such development. At this stage, the location has not been determined, but there are broad areas identified as potentially suitable.

## Biodiversity and nature conservation

A discussion of potential effects in these areas is presented here.

To the west of Shepshed, the effects on designated sites are unlikely to be significant given their proximity and the nature of development (which would likely involve enhancement).

However, the site would most likely be adjacent to the designated area of the Charnwood Forest. There may be potential for localised effects on biodiversity here. Conversely, there may be opportunities to improve linkages to the Charnwood Forest and deliver enhancements. Should a new settlement be located to the east of the borough in the open countryside, the potential for impacts upon designated sites would be relatively low. Whilst there may be localised effects in terms of a large scale loss of greenspace and disturbance to local biodiversity, the development of a new settlement would likely incorporate garden village principles and involve enhancement measures. Therefore, the residual effects in this area may be anticipated to be neutral. To the north east of the PUA, a settlement here could similarly avoid designated habitats. Again, there would be potential for localised impacts, for example the loss of hedgerows, trees and effects on watercourses. However, there should be potential for enhancement in this location too. It is not possible to provide an accurate assessment of the effects for this option without knowing the location of the new settlement. However, by considering these broad areas, it can be concluded that the effects would most likely be minor negative at the worst, and may be minor positive. At this stage, a **neutral effect** is considered appropriate, but with the caveat of uncertainty.

### Overall effects

Option A1 is predicted to have neutral effects in service centres and smaller settlements across the Borough. However, due to the focused growth at Loughborough and Shepshed there is potential for significant negative effects upon habitats and species at Charnwood Forest and Black Brook. In addition, there are potential minor negative effects upon the Soar Valley through a focus on the PUA. Overall, a **significant negative effect** is predicted for this option. Although there are neutral effects in some locations, the potential disturbance of one of the most sensitive habitats in the borough is predicted to be significant.

Option A2 is predicted to have minor negative effects at service centres in several parts of the borough. This reflects the potential for disturbance along the River Soar and severance of ecological networks. Minor effects are also predicted as there is potential for localised effects on biodiversity near Loughborough/Shepshed and the PUA. Overall, the effects are predicted to be **minor** overall. There would be no significant effects in any one part of the borough, and the effects on wildlife in each of the different areas could possibly be mitigated, and are not likely to lead to cumulative effects due to linkages between settlements.

Option A3 is predicted to have minor negative effects or uncertain negative effects across much of the district. Though there would be effects across a wider range of location, these are not predicted to be significant, nor would they be likely to generate a significant negative effect when considered in combination. Therefore, a **minor negative effect** is predicted overall.

Option A4 is predicted to have similar effects to option A3, though the dispersal of growth to other settlements could help to reduce the potential for effects at the PUA and at the other settlements. Though minor negative effects are predicted at the service centres, the effects for the rest of the district are either neutral, or potential exists to mitigate effects. Therefore, the overall picture for the Borough is an **uncertain minor negative effect**.

Options A5 and A6 are predicted to have **uncertain minor negative effects** overall. Each would have minor negative effects on the PUA but neutral effects across the rest of the borough. The effects of new settlements ought to be lower given that green infrastructure enhancements ought to be possible to attain and the sensitivity of habitats are relatively low. Therefore, the overall picture for the borough is not likely to be negative.

Options B2, B3, B4 and B6 are all predicted to have **significant negative effects** overall. The level of growth in Loughborough and Shepshed under each option could generate significant effects, particularly for option B2. Similarly, the increased level of growth along the Soar Valley at Service Centres could have significant effects in these locations for options B2, B3 and B4. Along with minor negative effects occurring in the PUA and / or other settlements, the cumulative effects are also significant. Though these options could all generate significant effects, they can be differentiated on the severity of the effects / likelihood of occurrence. Option B2 is most likely to have the greatest negative effects in Loughborough, whilst option B3 would have widespread effects across the greatest number of settlements. Option B6 perhaps performs the best as it would not involve significant effects at service centres, whilst the other three would.

The effects for C1 are difficult to predict accurately without a firmer understanding of the location of development. However, looking at potential areas for a new settlement, negative effects would be unlikely for two of the locations, and only minor for another. It is also assumed that enhancement would form a key principle of development. Consequently, a **neutral effect** is predicted at this stage (but with uncertainties).

## Biodiversity and nature conservation

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	-	-	0	0	0	-
A2: Urban focus	-	-?	-	0	0	0	-
A3: Settlement Hierarchy	-?	0	-	-	0	0	-
A4: Proportionate growth	-	-?	0	-?	0	0	-?
A5: Urban intensification and new settlement	0	0	-	0	0	-?	-?
A6: Urban focus and new settlement	0	0	-	0	0	-?	-?
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	--	--	-	0	0	0	--
B3: Settlement Hierarchy	--	--	-	-	0	0	--
B4: Proportionate growth	--	--	-?	-	-?	0	--
B6: Urban focus and new settlement	-	--	-	0	0	-?	--
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	?	?

## Water environment: Water quality

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 do not propose growth in the service centres, and therefore effects are **neutral**. For options A2 and A4, and to a lesser extent options A3 and A6, there would be growth at the service centres and this could impact on the Soar Valley, in particular the River Soar, with Quorn, Barrow upon Soar, Mountsorrel and to a lesser extent Sibleby all in close proximity. The proximity of these settlements to the corridor could increase run off into the watercourses, in particular during construction, increasing the risk of contamination and reducing water quality. Similarly with more development in option A4 in Anstey, there is pressure on Anstey and Rothley Brook, therefore the proximity of development could cause similar issues. The effects are predicted to be **minor negative** for options A2, A3 and A4 and **neutral** for option A6 (which involves the least growth).

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain though.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option A4 would have the very similar effects as option B6, given that the level of growth would be very similar. Options B2, B3 and B4 however would lead to substantially more growth in the service centres, which could exacerbate potential effects on water quality (due to construction) in the short term. In the longer term however, the effects are unlikely to be significant as water infrastructure would need to be upgraded and the change in land use from agricultural to residential could help to reduce pollution somewhat. There would also be a need to consider SuDs in new developments. Therefore, only **minor negative effects** are predicted for options B2, B3, B4 and B6.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres as there would be a very low level of growth involved for option C1. This ought to reduce the potential for polluting activities and demand for water resources.

### Loughborough / Shepshed:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A4 would involve the most development, with the additional population to the area potentially having an effect on water quality in the short term, as drainage and sewage facilities may need to be upgraded to cope with additional waste water and surface water run-off. The effects are not considered to be significant, as there will be a requirement for waste water facilities and SUDs to manage the potential effects of new development. Potential contamination to watercourses during construction could also be an issue, as described for the service centres.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain though.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 (in particular), B3, B4 and B6 would all lead to substantially greater amounts of growth compared to any of the options in scenario A. The potential for short term effects on water quality due to construction could be exacerbated, though it would be expected that mitigation would be secured to ensure that effects are not significant. There is likely to be a need to enhance waste water and drainage infrastructure to support this level of growth. **Minor negative effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the Loughborough / Shepshed as there would be a very low level of growth involved for option C1. This ought to reduce the potential for polluting activities and demand for water resources.

### PUA:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 all propose the delivery of 3350 homes. The likely location of sites would be within and adjacent to the Leicester Urban Area, such as within Thurmaston and adjacent to the City boundary adjacent to the A46. There are waterbodies around the River Soar and in the lakes around Leicester Marina and Watermead Country Park to the east of Thurmaston.

## Water environment: Water quality

Whilst these waterbodies are unlikely to be significantly affected, development of sites in close proximity such as the industrial estate or Mill Lane Car Park, would need to ensure effective mitigation. Development which changes to residential from the existing employment uses over the longer term, could potentially bring benefits to water quality as residential development once constructed is less likely to be polluting.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain though.

Overall, the effects are predicted to be **neutral** on balance.

Option A4 involves a lower amount of growth than all other options, and therefore **neutral effects** are predicted as well.

### Scenario B (Discussion of options for delivering 15,700 homes)

The level of growth for options B2, B3 and B6 is the same as for A1, A2, A3, A5 and A6. Therefore, the effects are predicted to be the same (**neutral**). Though the growth for option B2 is slightly greater, the effects are still predicted to be **neutral**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA as there would be a very low level of growth involved for option C1. This ought to reduce the potential for polluting activities and demand for water resources.

## **Other settlements:**

### Scenario A (Discussion of options for delivering 8,100 homes)

Only options A3 and A4 involve growth in 'other settlements' and 'smaller villages and hamlets'. Therefore, there are **neutral effects** for each of the other options (A1, A2, A5, A6). Assuming a relatively even split amongst the settlements, it is likely that growth could be accommodated in most locations without having significant effects on existing resources and water quality. Furthermore, there would also be a need to consider SuDs in new developments. Therefore options A3 and A4 are also predicted to have **neutral effects**.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain though.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth in the other settlements and so **neutral effects** are predicted. Option B3 involves similar levels of growth compared to options A3 and A4, and so neutral effects are predicted. Option B4 however, would double the amount of growth in smaller settlements, this could put some of the smaller waste water treatment facilities under more pressure and increase surface water run-off, having an uncertain **minor negative effect** in the short term (as waste water may be more difficult to manage in rural areas)

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for 'other settlements' as there would be a very low level of growth involved for option C1. This ought to reduce the potential for polluting activities and demand for water resources.

## **Small Villages and Hamlets**

### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth is very small under option A4, and if spread across the small villages and hamlets should not have any effects on water quality in any particular location. Neutral effects are therefore predicted for A4 as well.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth for B4 is still small in the context of the overall amount of development across the borough, and so effects are unlikely to be significant.

## Water environment: Water quality

Neutral effects are still predicted at this level of growth at the Hamlets, though it may be more difficult to manage waste water in rural areas due to a lack of centralised infrastructure. Therefore, there are uncertainties involved.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only options A5 and A6 involve new settlements. The effects are therefore **neutral** for options A1, A2, A3 and A4. The effects for options A5 and A6 are the same, as each would involve the same level of growth at new settlements (i.e. 3000 dwellings). It is likely water quality would be unaffected as there will need to be new drainage and water treatment installed as part of any development.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain though.

#### Scenario B (Discussion of options for delivering 15,700 homes)

The effects are the same for scenario B, which involve the same level of growth at new settlements as for scenario A. Therefore, the effects are **neutral** for all options.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Effects are highly dependent upon location, which makes it hard to provide an overall conclusion.

With regards to broad areas to the east of the borough, there are a number of minor watercourses that could possibly be affected by development in the short term. However, it is likely that mitigation would manage such effects. Much of the land in this location is in use for agriculture and falls within a nitrate vulnerable zone for surface water. The change of land use from agricultural to residential, open space and other uses may therefore help to address water quality issues in the longer term.

To the north east of the PUA, the picture is similar to that described above, and therefore similar effects would be expected.

To the west of Shepshed the land is similarly agricultural. Given the proximity to Black Brook, there may be potential for effects on water quality during construction, but conversely, a change of use could help to reduce surface water run-off of nitrates.

Overall, it is concluded that significant effects on water quality would be unlikely at any of the locations, with potential improvements in the longer term. However, there could be short term negative effects. An **uncertain effect** is predicted at this stage due to the lack of detail about location and layouts (which would be important in determining more accurate effects).

### **Overall effects**

Option A1 is predicted to have a **minor negative effect** on water quality, which is associated with higher levels of growth in Loughborough and Shepshed. Whilst growth around Loughborough and Shepshed is predominantly in existing or adjoining built up areas, there is development likely to occur around Black Brook, which could see some short term impacts, particularly during the construction phase. The currently open and rural nature would be replaced by built-up development which can increase run off likelihood into the watercourse also.

Options A2, A3 and A4 are predicted to experience **minor negative effects** due to the development within the Soar Valley corridor, which is characterised by water courses with reliant biodiversity. The associated disruption and pollution with construction could cause some short term problems. This would need to be mitigated by comprehensive drainage systems.

Options A5 and A6 are predicted to have **neutral effects** on water quality as the spread and density of developments should ensure that pressures on water quality in any one location are reduced. The new settlements will need to include comprehensive drainage and waste water treatment works in support of development. The scale of growth should provide the economies of scale to secure effective mitigation / enhancement.

## Water environment: Water quality

Options B2, B3, B4 and B6 all involve double the amount of growth across the borough compared to those options in scenario A. The majority of the additional growth would be focused towards Loughborough/Shepshed and the Service Centres.

Whilst this overall increase in growth could put greater pressure on water resources by increasing the demands upon waste water treatment and drainage infrastructure, it is unlikely that development would be approved without subsequent planned upgrades. Implementing sustainable drainage systems should also help to ensure that increased hardstanding does not lead to more surface water pollution, whilst a change in use from agricultural land to residential land could also contribute to a reduction in pollution. Therefore, on balance, the effects for each of these options are only considered to be **minor negative**.

Option C could also put greater overall pressure on water resources, depending upon the level of growth delivered. This would be lower than scenario B though, and ought to be possible to manage with upgrades to infrastructure. As development would be likely to involve large amounts of agricultural land, the change in land use could contribute to a reduction in pollution in the longer term. An **uncertain effect** is predicted at this stage though.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	-	0	0	0	0	-
A2. Urban focus	-	0	0	0	0	0	-
A3. Settlement Hierarchy	-	0	0	0	0	0	-
A4. Proportionate growth	-	-	0	0	0	0	-
A5. Urban intensification and new settlement	0	0	0	0	0	0	0
A6. Urban focus and new settlement	0	0	0	0	0	0	0
<b>Scenario B – 15,700 homes</b>							
B2. Urban focus	-	-	0	0	0	0	-
B3. Settlement Hierarchy	-	-	0	0	0	0	-
B4. Proportionate growth	-	-	0	-	?	0	-
B6. Urban focus and new settlement	-	-	0	0	0	0	-
<b>Scenario C - Standalone new settlement</b>							
C1. Large scale new settlement	0	0	0	0	0	?	?

## Water environment: Flooding

### Service centres

#### Scenario A (Discussion of options for delivering 8,100 homes)

Though some sites are adjacent to flood zones 2/3 there are no significant flood risks at any of the potential sites for development in Anstey. There is also limited potential for effects in Mountsorrel, Rothley, Sileby and Barrow upon Soar for the same reasons.

Sites in Quorn however, fall within flood zones 3/2 and therefore potential for negative effects exists at all levels of growth.

For each of the options a **neutral effect** is predicted. Though there could be potential effects at Quorn, these could be avoided by developing elsewhere, or more appropriate uses. The overall level of growth in each settlement should not lead to an increased flood risk elsewhere, provided that suitable drainage improvements are secured. This might be more difficult to achieve at higher levels of growth such as for options A2 and A4.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth the likelihood of sites being within areas at risk of fluvial flooding does not increase substantially, as none of the available sites present particular issues. However, the increase in growth overall could be more difficult to manage in terms of surface water drainage. Therefore, **uncertain (minor) negative effects** are predicted for each option.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres as there would be a very low level of growth involved for option C1. It would therefore be unlikely that development occurs in areas of flood risk, and the contribution to flood risk elsewhere would be minimal.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Sites in Shepshed are largely within flood zone 1. The exceptions are sites to the west of the settlement, where the perimeter of sites are intercepted by flood zone 2 and 3 associated with Black Brook. Within the Loughborough Urban Area, the majority of potential development sites fall within flood zone 1, with only several sites having small parts of the site falling within flood zones 2 and 3. The sites on the urban periphery (to the south) contain greater areas of flood zones 2 and 3. However, the site options are large, and it should therefore be possible to avoid areas of flood risk and introduce sustainable drainage systems.

For each of the options, the risk of flooding on development sites should be low, as the sites are largely not at risk of flooding. At higher amounts of growth (option A1 for example) were there would be a need to release more land, then there could be development on sites that involve a greater element of flood risk. This is a potential negative effect, but ought to be possible to mitigate given the nature of the sites.

In terms of the overall level of growth, and potential changes to hydrology, a large increase in development in and around Loughborough and Shepshed are most likely to contribute to increased flood risk in the longer term. Therefore, option A1 is likely to have the greatest potential for negative effects in this respect also.

Overall, option A1 is predicted to have **minor negative effects**, whilst options A2, A3, A4, A5 and A6 are predicted to have **neutral effects**.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3, B4 and B6 would all involve considerably more development in Loughborough/Shepshed compared to any option under scenario A. This would most definitely involve the development of sites that contain areas at risk of flooding. However, the nature of flood risk on available development sites ought to allow for significant effects to be avoided provided that sustainable drainage systems are implemented. A **minor negative effect** is predicted for options B3, B4 and B6. For option B2, which involves maximised growth, there would be much less flexibility in the choice of sites and layout / densities, therefore a **significant negative effect** could occur.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

## Water environment: Flooding

**Neutral effects** are predicted for Loughborough / Shepshed as there would be a very low level of growth involved for option C1. It would therefore be unlikely that development occurs in areas of flood risk, and the contribution to flood risk elsewhere would be minimal.

### PUA:

#### Scenario A (Discussion of options for delivering 8,100 homes)

The majority of sites potentially available for development in the PUA do not fall within Flood Zones 2 or 3. However, there are some sites within Thurmaston that fall entirely within Flood Zone 3. Sites in Syston have mixed risks of flooding. At a lower level of growth it ought to be possible to avoid areas of flood risk. At higher levels of growth the need to develop in areas at greater risk (or closer proximity) to areas of flood risk would be necessary.

To deliver 3350 homes (as per options A1, A2, A3, A5 and A6) would require development on the available sites in the PUA and upon sites in Syston. Therefore, there would be potential for development that is affected by flood risk, which is a **minor negative effect**. At a lower level of growth (option A4), these potential effects could be more easily avoided and thus a **neutral effect** is predicted.

The overall level of growth involved could also affect surface water run-off and drainage patterns. However, several sites would be brownfield, and it ought to be possible to incorporate SUDs to greenfield site options given their size.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3, and B6 all involve the same level of growth as options A1, A2, A3, A5 and A6. Therefore, an **minor negative effects** are also predicted. Though option B4 involves double the level of growth compared to option A4, the effects are still predicted to be **neutral**, as there would still be a degree of flexibility in the choice of sites (to allow for areas of flood risk to be avoided).

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA as there would be a very low level of growth involved for option C1. It would therefore be unlikely that development occurs in areas of flood risk, and the contribution to flood risk elsewhere would be minimal.

### Other settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Sites within the 'other settlements' have mixed risk of flooding. At some settlements, potential development sites do not fall within flood risk zones at all (Rearsby, East Goscote, Cossington, Thrussington, Wymeswold), whilst in others, small parts of the sites fall within flood zones 2 and 3, but this is mostly at the edge (Thurcaston, Burton on the Wolds, Barkby).

Growth for options A3 and A4 is at a level where it ought to be possible to avoid flood risk and/or implement suitable mitigation in the form of SUDs. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

There is no growth for options B2 and B6, so **neutral effects** are predicted. Option B3 has similar growth to options A3 and A4, and so a **neutral effect** is still predicted. For option B3, the amount of growth in the other settlements increases slightly compared to option A3, whilst the amount in the smaller settlements also increases. Despite these increases, it should still be possible to avoid flood risk, so **neutral effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the other settlements as there would be a very low level of growth involved for option C1. It would therefore be unlikely that development occurs in areas of flood risk, and the contribution to flood risk elsewhere would be minimal.

### Small Villages and Hamlets

## Water environment: Flooding

### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth is very small under option A4, and if spread across the small villages and hamlets should not have any effects in terms of flood risk locally given the flexibility in the sites available. However, it is noted that several settlements do fall within close proximity to flood risk zone 2/3 including Swithland, Barkby, Beeby and Wanlip. However, the majority of sites available in the SHLAA do not fall outside flood zone 1.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth for B4 is still small in the context of the overall amount of development across the borough, and so effects are unlikely to be significant. **Neutral effects** are still predicted locally at this level of growth at the Small Villages and Hamlets. Although there may be a greater number of sites developed, this would not contribute to increased flood risk locally as there are sufficient sites available that do not fall into areas of flood risk. Having said this, speculative sites that come forward in certain settlements may well fall into areas of flood risk. It is expected that these would not be supported though given the need to apply the sequential test.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Flood risk at the new settlement in Barkby is unlikely to present a constraint to development, as there are no areas at risk of flooding on site. It ought to be possible to manage surface water run-off through the application of SUDs. Likewise, the site at Wymeswold is not at risk of fluvial flooding and is unlikely to present a constraint to development, nor increase flood risk downstream.

The site at Cotes contains small areas that fall within Flood Risk Zones 2 and 3; a small stream running through the site, as well as a small part of the River Soar flood plain. Despite this, the development of the site could be accommodated without increasing flood risk. Not least, the large nature of the site ought to allow for green infrastructure and sustainable drainage systems to be incorporated. Therefore, a neutral effect is predicted.

At the potential new settlement site in Thurcaston, there is a band of flood zone 2/3 running through the site from south-east to north-west. There is also a band of flood risk zone 2/3 to the north west of the site associated with the Rothley Brook. Development here is more greatly constrained by potential flood risk, but again it ought to be possible to incorporate green infrastructure and drainage solutions into a large development. An uncertain negative effect is predicted at this location.

Overall, the effects of development for options A5 and A6 are predicted to be **neutral** in terms of the new settlements. This reflects the neutral effects at three of the new settlements, and only uncertain negative effects at Thurcaston. There may also be the potential for enhancement to flood risk management at each of the new settlement developments.

#### Scenario B (Discussion of options for delivering 15,700 homes)

The effects for options B2, B3, B4 and B6 are **neutral**, as they involve no growth or the same level of growth as options A5 / A6.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

None of the broad locations for a potential new large scale settlement fall within areas that are at a high risk of flooding. Whilst small parts of a development site might be intersected by areas at risk of flooding, it should be relatively easy to avoid areas of flooding. The large scale growth in development in one location could possibly lead to increases in surface water run-off / changes to hydrology downstream. However, the scale of growth involved should allow for mitigation measures in the form of SUDs (utilising natural systems). Consequently, the effects are likely to be neutral overall regardless of location.

#### Overall effects

## Water environment: Flooding

Option A1 is predicted to have a minor negative effect overall. This is mainly attributable to several sites potentially being developed in Loughborough/Shepshed and the PUA that contain areas at risk of flooding. The large focus of growth in these locations could also be more likely to contribute to changes in hydrology.

Options A2-A6 are all predicted to have **neutral effects**. The spread of growth across the borough should allow for areas at risk of flooding to be avoided in the main. The more dispersed nature of growth should also lead to less pressure on drainage infrastructure in any one location. Though there are minor negative effects at the PUA, the overall picture is neutral.

Options B3, B4 and B6 are all predicted to have **minor negative effects** with regards to flooding. There would be substantially more growth at Loughborough/Shepshed, which would mean sites at partial risk of flooding would need to be developed. The overall increase in growth in this area could also affect surface water run-off. Likewise, an increase in growth at the service centres could also affect drainage, and/or lead to a need for more dense development. These are only uncertain negative effects, but in combination with the potential effects at the PUA and the minor negative effects at Loughborough, each option is likely to be negative overall. Due to the significant level of growth at Loughborough for option B2, and the lack of site flexibility, a **significant negative effect** has been identified for option B2.

Option C1 is predicted to have **neutral effects** across the borough. The effects at existing settlements would be limited given the low scale of growth involved. Though there would be substantial growth at a large new settlement, this isn't likely to be in areas of high flood risk and mitigation and enhancement ought to be possible to ensure that impacts on flood risk downstream is not increased.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	-	-	0	0	0	-
A2. Urban focus	0	0	-	0	0	0	0
A3. Settlement Hierarchy	0	0	-	0	0	0	0
A4. Proportionate growth	0	0	0	0	0	0	0
A5. Urban intensification and new settlement	0	0	-	0	0	0	0
A6. Urban focus and new settlement	0	0	-	0	0	0	0
<b>Scenario B – 15,700 homes</b>							
B2. Urban focus	-?	--	-	0	0	0	--
B3. Settlement Hierarchy	-?	-	-	0	0	0	-
B4. Proportionate growth	-?	-	0	0	0	0	-
B6. Urban focus and new settlement	-?	-	-	0	0	0	-
<b>Scenario C - Standalone new settlement</b>							
C1. Large scale new settlement	0	0	0	0	0	0	0

## Land: Soil resources

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

For the service centres, site options are mostly on the urban fringe and would therefore involve the loss of agricultural land.

Options A1 and A5 involve no development in Service Centres. Option A6 involves the lowest amount of growth.

In Sileby, presuming a need to provide approximately 125 dwellings (one 6<sup>th</sup> of the total of 750), there could be a loss of up to 4ha of land, but it would most likely be grade 2 land. At Anstey, presuming a similar level of growth, the loss of land would similarly be up to 4ha, but grade 2 land could be avoided – i.e. it would be grade 3. At Rothley, a similar amount again would be lost (4ha of grade 3 land). For Barrow upon Soar, a similar loss would be expected (4ha of grade 2 land). There would be limited loss of agricultural land at Mountsorrel. At Quorn, a loss of up to 4ha of grade 3 land is predicted.

Overall, the total loss of agricultural land under option A6 could be up to 20ha, with at least 12ha likely to be grade 2. Whilst any loss of agricultural land is considered to be negative from a soil resources perspective, the effects are predicted to be **neutral** as the magnitude of effects is small, in the context of resources at a borough scale.

For option A3, the level of growth in the service centres is double that under option A6. Given the need for additional land for development, the loss of agricultural land would be likely to be approximately 36ha in total. Again, this would be a mix of grade 2 and 3. The majority of land at Sileby is grade 2, and so a further 4 ha of grade 2 could be lost here. At Barrow, a similar loss would be expected, but it could be a mix of grade 2 and 3. A further 4ha of grade 3 land could be lost at Anstey, and similarly at Rothley. For Quorn, the additional site options do not involve agricultural land and thus, no further loss would be anticipated.

Option A2 involves a greater amount of growth in the service centres compared to option A3. Wherever this is delivered it is likely to lead to further loss of agricultural land. This could equate to approximately 18 ha of additional land lost, equating to 54ha in total. Given the quantum and quality of land likely to be lost, a **minor negative effect** is predicted.

Option A4, would deliver 2458 dwellings across the service centres, which is more than three times the amount for option A6. Wherever this additional growth is delivered, it is likely to lead to further loss of agricultural land. This could equate to approximately 60 ha in total. Given the quantum and quality (large amounts of grade 2) of land likely to be lost, a **significant negative effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B6 would involve approximately the same level of growth as option A4, and therefore 60ha of land could be lost. This is a **significant negative effect**.

Option B2 involves 4080 homes, which could lead to a loss of 110ha in total, which is also a significant negative effect.

Option B3 involves a further 270 homes which could equate to an additional 8ha (118ha total) and option B4 involves a further 220 homes still which could lead to a total loss of 125ha. All four options are predicted to have **significant negative effects** due to the scale of loss, and the greater likelihood that grade 2 land would be lost too.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres. At the scale of growth involved, it ought to be possible to avoid best and most versatile agricultural land entirely. At worst, there could be a loss of 5ha land across the Service Centres, which is minimal in the context of the Borough resources.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

There are a number of options in the urban area of Loughborough and Shepshed that could accommodate a proportion of new growth under each of the options. There is also non-agricultural land outside the urban area in Shepshed that could accommodate growth. This would help to avoid the loss of agricultural land and it is assumed brownfield sites would be maximised as part of the spatial strategy. However, to meet the required housing targets under each option, there would be a need to release greenfield land on the fringes of Loughborough and Shepshed.

## Land: Soil resources

For option A6, which involves the lowest level of growth in these areas, there ought to be greater flexibility in the choice of sites. There may be enough sites in the urban area and on non-agricultural land to deliver this option. Even if a small number of greenfield sites were selected, the total loss would be unlikely to be greater than 12ha. The effects are therefore predicted to be **neutral**, as the magnitude of loss is very small, and a large proportion of this could be Grade 3 (which may or may not be best or most versatile agricultural land).

Option A3 (2100 dwellings) involves more than double the amount of growth compared to option A6. There would therefore be a need to release further greenfield land. There would still be some flexibility in site choice though, and so grade 3 land could be targeted rather than grade 2. However, it might be expected that a further 35 ha of land would be lost. A total loss of 47 ha is considered to be a **minor negative effect**.

Option A5 involves slightly lower growth than option A3 (350 dwellings less) and therefore, would be likely to involve approximately 10ha less compared to option A3 (i.e. a total loss of approximately 37ha). This is a **minor negative effect**.

Option A1 involves the greatest amount of growth at 4750 dwellings. This would necessitate the need for further land take, of which a greater amount would be likely to be grade 2 agricultural land. In total approximately 110ha could be lost, which is predicted to be a **significant negative effect** given the higher overall loss and proportion of higher quality land.

For option A2, the loss of land would be approximately 70ha, which is considered to be a **minor negative effect**. Whilst the quantum of land affected is fairly high, it ought to be possible to mostly avoid grade 2 land.

For option A4, the loss of land would be approximately 95ha, of which a greater proportion would need to include Grade 2 land. This is considered a **significant negative effect** given the higher overall loss and proportion of higher quality land.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3, B4, B6 would all involve substantially more growth compared to options under scenario A. There would be a loss of approximately 200ha for each option, which is a **significant negative effect**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for Loughborough / Shepshed. At the scale of growth involved, it ought to be possible to avoid best and most versatile agricultural land entirely. At worst, there could be a loss of 7ha land, but this is unlikely, and is minimal in the context of the Borough resources.

## PUA:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 all involve approximately 3350 dwellings. Presuming this consisted of a mix of urban sites (i.e. within Thurmaston) and sites on the urban fringe (at Thurmaston, Birstall and adjacent to the A630 for example) and at Syston (a mix of urban and mostly greenfield sites) there would be a potential loss of agricultural land classified mostly Grade 3 land. Site opportunities adjacent to Thurmaston consist of approximately 27ha of grade 3 agricultural land. This could be lost to development. Similarly, 20 ha of land adjacent to the A630 is classified as grade 3 (though this doesn't appear to be in agricultural use and may not be best and most versatile (i.e. 3a). Approximately 55 ha of land could also be lost in Syston of either grade 2 or 3 land. Overall, approximately 85ha could be lost, with the majority being Grade 3 land. This could be higher though should the brownfield sites in the urban area not be found to be deliverable. This is considered to be a **minor negative effect**.

Option A4 delivers much fewer dwellings, and would therefore be much less likely to lead to the loss of agricultural land. Given that some of the land could be met in the urban area of Birstall and Thurmaston on non-agricultural land, the total loss of grade 3 land would likely be less than 15 ha. Therefore, a **neutral effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve the same growth as options A1, A2, A3, A5, and A6, and therefore the effects are the same (85ha - **Minor negative**). Option B4 would involve lower growth, and the likelihood and amount of loss is therefore lower (approximately 45ha). This is considered to be a **neutral effect**.

## Land: Soil resources

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA. At the scale of growth involved, it ought to be possible to avoid best and most versatile agricultural land entirely. At worst, there could be a loss of 10ha land, but this is unlikely and is minimal in the context of the Borough resources.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

The majority of 'other settlements' fall within the countryside / rural parts of the Borough. Therefore, the majority of land available for development is classified as either grade 2 or grade 3. The exceptions are in Queniborough and East Goscote, which present several sites that are not agricultural in nature. Assuming a fairly even split across the settlements (*though some villages do not have the same opportunities for development as others*), there would be some loss of agricultural land in most of the settlements. In some settlements, the loss would be of grade 3 land (Wymeswold, Thrussington, Burton on the Wolds, Hathern), whilst at others it would likely be grade 2 (Rearsby). In total, approximately 27ha could be affected for option A3 and 17ha for option A4, but the majority would be grade 3 (which may or may not be best and most versatile land). Given the low magnitude of land likely to be lost, and most of this being grade 3 land, **neutral effects** are predicted for options A3 and A4 (the only options to involve growth in the 'other settlements'). All other options are also predicted to have **neutral effects** given that there is no growth involved.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B3 would involve similar growth to option A3 and therefore the effects are **neutral**. Option B4 would deliver twice the amount of growth compared to option A4 (both being proportionate approaches), and therefore a loss of up to 45ha could occur. This is a **neutral effect** given the low magnitude of effects in the context of the borough.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres. At the scale of growth involved, it ought to be possible to avoid best and most versatile agricultural land entirely. At worst, there could be a loss of 3ha land across the Service Centres, which is minimal in the context of the Borough resources.

### **Small Villages and Hamlets**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The villages and hamlets vary in character, with some being located in Charnwood Forest, and others in more open countryside on agricultural land. The grade varies from 2 to 3 dependent upon location. Overall, the loss of agricultural land for A4 would be likely to be less than 7 ha, and perhaps lower given the flexibility in site choices across the borough. This is not considered to be significant in the context of borough-wide and regional resources. Consequently, a **neutral effect** is also predicted for A4.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. Overall, the loss of agricultural land for A4 would be likely to be less than 14 ha, with at least half of this being grade 3 land that may not actually be classified as best and most versatile. Therefore, this minor loss is not considered to be significant in the context of borough-wide and regional resources, nor at a local level with regards to the rural economy in these areas. Consequently, a **neutral effect** is also predicted for B4.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

## Land: Soil resources

The new settlement opportunity at Cotes is classified as predominately grade 2 land (132ha), which appears from field patterns to be in agricultural use. The new settlement opportunity Barkby is categorised as grade 3 land (47ha), which appears to be in agricultural use. The new settlement opportunity Wymeswold is partially an airfield plus areas of grade 2 and 3. However, much of the land does not appear to be in agricultural use, rather it is semi-natural greenspace. A loss of land here is unlikely to affect any best or most versatile land. The new settlement opportunity Thurcaston is composed of approximately 20ha of grade 2 land and 16ha of grade 3 land, which appear to be in agricultural use.

In total, the development of these sites as new settlements would be likely to result in over 200ha of agricultural land loss. This is predicted to be a **significant negative effect** for both options A5 and A6.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not involve growth at the new settlements, and so **neutral effects** are predicted. Option B6 involves the same growth at new settlements as for options A5 and A6, and so a **significant negative effect** is also predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

The loss of agricultural land would be largely dependent upon the location of a new settlement. To the east of the borough in the open countryside, it is likely that a new settlement would involve a substantial amount of agricultural land loss. This could be grade 2 or 3 land up to approximately 360ha. This would be a significant negative effect. West of Shepshed, there would also be a similar loss of agricultural land, but this would be predominantly grade 3. To the north east of the PUA the effects would be similar, with potential loss of grade 2 and / or 3 land. Therefore, significant negative effects could occur in two of these locations.

### Overall effects

Each of the options is predicted to have significant effects upon soil resources. The different options involve loss in different locations, but the overall picture is that agricultural land is likely to be lost regardless. Though each option would involve a significant loss of resource. Options A5 and A6 are considered to perform the poorest under scenario A, as they would lead to substantially more loss compared to the other options. For scenario B, all of the options would involve greater loss compared to Scenario A, with Option B6 performing the worst. Option C1 would also have significant negative effects, focused almost entirely at a new settlement.

The total amount of land lost under the options is estimated as follows; Option A1 = 195ha, Option A2 = 218 ha; Option A3 = 195ha, Option A4 = 194ha, Option A5 = 322ha, Option A6 = 317ha, Option B2 = 395ha, Option B3 = 448ha , Option B4 = 415ha, Option B6 = 545ha, Option C1 = 360ha?

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	--	-	0	0	0	--
A2. Urban focus	--	-	-	0	0	0	--
A3. Settlement Hierarchy	-	-	-	0	0	0	--
A4. Proportionate growth	--	--	0	0	0	0	--
A5. Urban intensification and new settlement	0	-	-	0	0	--	--
A6. Urban focus and new settlement	0	0	-	0	0	--	--
<b>Scenario B – 15,700 homes</b>							
B2. Urban focus	--	--	-	0	0	0	--
B3. Settlement Hierarchy	--	--	-	0	0	0	--
B4. Proportionate growth	--	--	0	0	0	0	--
B6. Urban focus and new settlement	--	--	-	0	0	--	--
<b>Scenario C - Standalone new settlement</b>							
C1. Large scale new settlement	0	0	0	0	0	--	--

## Air quality

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Existing services and road networks would be used to support development in the service centres, with the level of growth involved not likely to require strategic infrastructure upgrades. Though increased growth could contribute to transport along routes into Leicester and Loughborough, the effects on air quality locally are not likely to be significant at this level of growth due to the spread of development and the absence of air quality management areas (AQMAs) or areas of concern at the Service Centres.

Consequently, each of the options is predicted to have **neutral effects** with regards to air quality in the service centres.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth, air quality is still not anticipated to be significantly affected in the service centres themselves, but could lead to a worsening of quality in town centres due to increased traffic, congestion and car usage. Furthermore, the overall increase in housing would lead to increased car trips, which could contribute to air quality issues in more sensitive areas such as Loughborough and Leicester City. For options B2, B3 and B4 a potential **minor negative effect** is predicted, with a **neutral effect** for option B6 which involves lower growth.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres. At the scale of growth involved, the number of additional trips generated would be minor and unlikely to contribute to air quality issues.

### Loughborough / Shepshed:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Data for Loughborough from 2015 indicates that there has been a significant reduction in the concentration of NO<sub>2</sub> levels around the town centre since the opening of the Inner Relief Road in November 2014<sup>10</sup>. The AQMA however still remains within Loughborough (Nitrogen Dioxide (NO<sub>2</sub>)) and there is potential for this area to be worsened by concentrated development resulting in more congestion and car journeys. The AQMA around the railway station is particularly sensitive to being affected.

For options A3, A5 and A6, which involve lower levels of growth, development could be contained mostly within the urban areas, and therefore, the need to travel would be somewhat reduced. The overall level of growth would be less likely to have significant negative effects upon air quality, and so **neutral effects** are predicted. Options A2 and A4 would involve a higher amount of growth and so there may be potential for **negative effects** on air quality, but there is uncertainty. Option A1 is most likely to have effects on air quality due to the higher concentration of growth in and around Loughborough and Shepshed. However, the effects are not predicted to be significant given the spread of development and choice of sites. It may also be possible to secure infrastructure improvements for larger developments. A **minor negative effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth, there would be a need to release the majority if not all available sites, which could lead to increased trips to, from and through Loughborough and Shepshed. This could lead to worsening air quality, possibly in AQMAs. Consequently, a **significant negative effect** is predicted for options B2, B3, B4, B6-10 (with option B2 performing worst). The potential to secure strategic road improvements might help to reduce air quality pressures, but this has not been factored into the assessment given that there are no specific schemes planned.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for Loughborough / Shepshed. At the scale of growth involved, the number of additional trips generated would be minor and unlikely to contribute to air quality issues.

<sup>10</sup> LAQM Annual Status Report 2016 – Charnwood Borough Council

## Land: Soil resources

### PUA:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Travel into and out of Leicester often suffers peak time congestion along the main arterial routes. This is highlighted by the AQMA in Syston (NO<sub>2</sub>), and within Leicester City itself. Increased development on the urban periphery is likely to increase traffic along these routes, which could impact upon air quality in these areas. Monitoring data suggests that annual mean objective of 40µg/m<sub>3</sub> is not close to being exceeded in Syston, or in locations around the PUA. Therefore, whilst the level of increased growth involved could lead to a worsening of air quality, the effects would not be expected to be significant.

A **minor negative effect** is predicted for options A1, A2, A3, A5 and A6. For option A5, a **neutral effect** is predicted as the amount of growth focused in these areas is much lower.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve the same growth as options A1, A2, A3, A5 and A6 and therefore **minor negative effects** are predicted. Option B4 involves a lower level of growth, and so the effects are less likely to occur. An **uncertain negative effect** is predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA. At the scale of growth involved, the number of additional trips generated would be minor and unlikely to contribute to air quality issues.

### Other settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Given the more rural nature of some of the 'other settlements' and hamlets, growth in these locations is likely to increase the number and length of car trips. However, the dispersed nature of growth and lack of existing air quality issues in the other settlements (and hamlets for option A4) means that significant effects upon air quality would not be anticipated in these areas. **Neutral effects** are predicted for all options, though it is possible that growth in these areas could contribute to traffic along major routes.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Despite a higher level of growth at the other settlements and hamlets under option B4, the effects are still predicted to be **neutral** for each of the options.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the other settlements. At the scale of growth involved, the number of additional trips generated would be minor and unlikely to contribute to air quality issues.

### Small Villages and Hamlets

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under A4 would be low in the context of overall development across the borough. Though this is likely to encourage car trips, the effects on air quality would be **neutral** as new homes would not be placed in sensitive areas or generate significant emissions.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under B4 would be low in the context of overall development across the borough. Though this is likely to encourage car trips, the effects on air quality would be **neutral** as new homes would not be placed in sensitive areas or generate significant emissions.

## Land: Soil resources

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only Options A5 and A6 propose development in new/expanded settlements. New development here would need to include accessible services, a well-designed infrastructure network and effective public transport to ensure that car journeys are minimised and that congestion into the main towns in the Borough and surrounding areas is minimised. However, it is anticipated there will be a **minor negative effect** on air quality given that the new settlements at Cotes / Wymeswold could lead to higher levels of traffic on routes towards Loughborough and settlements at Thurstaston and Barkby could contribute to air quality issues in the PUA.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B6 involves the same level of growth as options A5 and A6, and therefore **minor negative effects** are predicted also.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

The effects of option C1 would be largely dependent upon the location of a large new settlement.

Common to all three broad opportunity areas is the very large scale of growth in one location which could put pressure on local road networks and subsequently increase the emissions of air pollutants. A large settlement to the west of Shepshed could potentially increase the amount of traffic travelling through Loughborough compared to more modest growth in this area. Consequently, there could be potential to affect the AQMA in this area and also activity at Junction 23 of the M1. Though a development of such size would be expected to make substantial contributions to highways network improvements, a significant negative effect could still potentially occur in this location. Likewise, growth to the north east of the PUA could lead to substantially more car trips to and from Leicester and possibly through Syston AQMA. This could also potentially have significant negative effects. A development to the east of Loughborough in the open countryside would be further away from urban areas with higher concentrations of pollutants. Additional car trips may therefore be less likely to contribute to air quality issues in one particular area that is already sensitive to additional emissions. As the location of a new settlement and supporting infrastructure is not known at this time, a precautionary approach is taken and a potential **significant negative effect** is recorded for option C1.

### **Overall effects**

Option A1 focuses growth purely at Loughborough and Shepshed and the PUA. Growth in these areas could both potentially affect air quality in AQMAs, though the effects would not be anticipated to be significant in either location. Overall, the effects are predicted to be **minor negative**.

Option A2 shows a similar pattern of development as option 1, with a concentration around the PUA, Loughborough and Shepshed, but more growth is diverted from Loughborough to the Service Centres. This is likely to lead to less pressure on the AQMAs at Loughborough, and so effects here are likely to be lower. The effects in the Service Centres are not expected to be significant either, but growth here could still generate trips to and from areas of greater sensitivity. A **minor negative effect** is predicted overall.

Option A3 disperses growth further to the other settlements, lowering the amounts focused at Loughborough and the Service Centres. As a result, effects on air quality in any particular location are predicted to be lower. Though the overall increase in growth could still lead to increases in traffic, the effects are not expected to be significant. Minor negative effects could still be generated in the PUA though. Overall, an **uncertain negative effect** is predicted.

Option A4 takes a proportionate approach which should enable a more even spread of development throughout the Borough. This approach would lead to the lowest level of growth at the PUA, and so effects here could be better avoided. Neutral effects are predicted in the majority of areas, though there are potentially negative effects in Loughborough. Despite there being less of a focus in any one area, increased traffic and patterns of travel could still contribute to air quality issues in sensitive locations. An **uncertain (minor) negative effect** is predicted overall.

## Land: Soil resources

Options A5 and A6 propose similar amounts of development, focused largely at the PUA and new settlements. This pattern of growth could lead to minor negative effects in these locations. In combination with growth at the PUA, two of the new settlements nearby (Barkby and Thurcaston) could exacerbate the effects in the PUA. It is uncertain whether these effects would be significant without transport modelling. **Minor negative effects** are predicted at this stage.

Options B2, B3, B4, B6 all propose substantially higher levels of growth to Loughborough. This would lead to an increase in traffic, which could potentially affect air quality. Though the inner link road has reduced air quality problems in the centre somewhat, it is unclear whether the additional level of growth could be accommodated without a worsening of air quality. An increase in growth would also occur at the service centres for options B2, B3 and B6, which could generate minor negative effects in these locations, and also contribute to traffic heading towards more sensitive areas. Overall a **significant negative effect** is predicted for each option.

Option B6 would have fewer effects at the service centres, but greater effects as a result of new settlements. Overall, the effects are still significantly positive.

Overall, option C1 is predicted to have a potential **significant negative effect** with regards to air quality. Placing a substantial amount of growth in one location could potentially increase air pollutants. Should this be within close proximity to urban areas with designated AQMAs the additional traffic could potentially contribute to a worsening in air quality. The effects across the rest of the district would be minimal, with the exception of those settlements that are located within close proximity to a new settlement.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	-	-	0	0	0	-
A2: Urban focus	0	-?	-	0	0	0	-
A3: Settlement Hierarchy	0	0	-	0	0	0	-?
A4: Proportionate growth	0	-?	0	0	0	0	-?
A5: Urban intensification and new settlement	0	0	-	0	0	-	-
A6: Urban focus and new settlement	0	0	-	0	0	-	-
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	-	--	-	0	0	0	--
B3: Settlement Hierarchy	-	--	-	0	0	0	--
B4: Proportionate growth	-	--	-?	0	0	0	--
B6: Urban focus and new settlement	0	--	-	0	0	-	--
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	--?	--?

## Climate change

### Overall effects

The ability to deliver resource efficient and resilient developments ought not to be dependent upon location. Therefore, the distribution of homes to different levels of the settlement hierarchy should have the same effects on emissions from the built environment regardless of location. Development in any location should also provide opportunities to introduce resilience measures such as green infrastructure, green roofs, SUDs. The effect of scenario A on emissions is predicted to be neutral with regards to the built environment; as such growth might be expected to occur anyway in the absence of the plan (albeit in a less strategic manner). For scenario B, the level of growth is higher, and thus the overall emissions on the Borough may be expected to increase (though this could correspond in a decrease elsewhere).

Location can also lead to differences in the amount of emissions from transport, and certain locations or types of sites (larger mixed use) may also be more likely to support decentralised energy schemes. These factors are discussed below with regards to each option. The effects have not been broken down by different levels of the settlement hierarchy, as impacts in one area could offset those in another. Therefore, it is more appropriate to discuss the overall implications of each option with regards to emissions and resilience.

*Option A1* focuses the majority of growth in Loughborough / Shepshed and the principal urban area. Both these locations have good access to jobs, services and public transport. Therefore, new development should be less likely to generate long car trips (and associated emissions). This option would also not lead to further growth in less accessible locations. Whilst there is no solid evidence to support decentralised energy schemes, the scale of some site options in Loughborough, and the higher heat demand in the urban area could make these locations more suitable for such schemes.

Larger site options may also be more appropriate for delivering strategic green infrastructure improvements, which can help with climate change resilience for wildlife and for human health. This could be particularly beneficial for more built up areas such as Loughborough, Shepshed and Syston, in terms of helping to reduce a potential heat island effect.

On balance, a **major positive effect** is predicted in terms of climate change emissions.

*Option A2* still focuses a large proportion of growth to the PUA, but slightly less to Loughborough and Shepshed, whilst including growth at the service centres. Whilst access to services, facilities and jobs are more accessible in Loughborough compared to the service centres; these settlements still offer reasonable accessibility. Therefore, anticipated trips by car ought not to be significantly higher compared to Option A1.

With regards to resilience, growth at some of the service centres would be on smaller scale sites, and so strategic improvements may be more difficult to secure. The lower demand for heat and the smaller scale of sites could also make decentralised energy opportunities less feasible. On balance, a **minor positive effect** is predicted.

*Option B2* involves the same distribution of growth as Option A2, but delivers double the amount of housing.. The effects would therefore be exacerbated. The increased amount of growth at the service centres in particular could help to create a critical mass to support new facilities that improve accessibility and reduce the need to travel. However, the overall increase in growth could lead to greater emissions overall. Therefore, the positive effects are somewhat dampened. A **minor positive effect** is predicted.

*Option A3* disperses growth further, with slightly less growth at Loughborough and the service centres, but more at 'other settlements' at a lower level of the settlement hierarchy. Given that some of these settlements have poorer access to services, facilities and public transport, this option is more likely to lead to an increase in car trips and associated emissions. The opportunities for strategic resilience measures or low carbon energy schemes are also likely to be more limited for the smaller-scale site options at these settlements. On balance a **neutral effect** is predicted. In the absence of a Plan, one might expect some growth at different levels of the settlement hierarchy anyway. This option would not lead to substantial differences in travel pattern and emissions compared to the baseline situation.

Option B3 proposes a similar distribution to option A3, but with increased growth in Loughborough/Shepshed and the Service centres. The effects are therefore likely to be a **minor positive** to reflect the location of a critical mass of people in accessible locations. As for option B2 though, the higher level of growth dampens the positive effects somewhat.

*Option A4* would see the bulk of growth in Loughborough. Unlike the other 5 options, there would be much lower growth in the PUA, but a more dispersed pattern of growth across the borough. Growth in the PUA could help to reduce the length of trips made to access jobs (with many opportunities in the City Centre), and therefore redistribution of these to smaller settlements (other settlements / small villages and hamlets) across the district might lead to an increase in emissions from transport overall. Consequently, a **minor negative effect** is predicted.

## Climate change

Option B4 involves a higher amount of growth in the other settlements and smaller villages compared to any option. This will lead to a greater amount of homes in areas that are more reliant on the private car. This could lead to an increase in emissions. Whilst the increase in growth at the service centres and Loughborough/Shepshed could be positive in respect of supporting new services, and placing homes in accessible locations, the overall increase in growth offsets this somewhat. A **minor negative effect** is predicted.

Options A5 and A6 involve the same level of growth at the PUA as options A1, A2 and A3. Growth here ought to have relatively good access to facilities and jobs and help minimise increases in transport emissions. Both options also involve a modest amount of growth in Loughborough, whilst option A6 involves growth in the service centres too. The growth in these locations and the PUA is predicted to have a minor positive effect in terms of emissions. However, there would also be substantial growth at new / expanded settlements. The location of these settlements is not ideal with regards to accessibility. Therefore, without securing new services and facilities to serve new communities, there is likely to be an increase in car travel associated with growth in these locations. This offsets any positive effects that could be achieved through a focus on the PUA and Loughborough. On balance a minor negative effect is predicted for both options. There is uncertainty though, as new settlements of this scale ought to be more suitable for securing improved services and facilities.

Option B6 involves a new settlement, with the level of growth at these location the same as options A5 and A6. The effects associated with these (i.e. potentially negative) therefore remain. As per the other options under scenario B which involve increased growth in Loughborough and the Service centres, there are some positives with regards to locating people in accessible areas. However, the overall increase in growth offsets this somewhat. An **uncertain negative effect** is predicted.

The effects of option C1 will be dependent upon the location of a new settlement. Generally speaking, the settlements should have good access to local services, facilities and open green space because this would be an integral part of development at such a scale. This ought to help reduce emissions from this form of travel. However, access to jobs may be reliant upon private cars unless expanded bus facilities are established as part of development. This could therefore lead to an increase in carbon emissions. Overall, it is likely that the emissions generated would be minor taking these different factors into account. With regards to the potential for low carbon energy generation and sustainable design, it ought to be more feasible to establish viable schemes for larger scale developments. However, viability would also depend upon there being a suitably varied range of uses and anchor loads for heat. It is unclear whether new settlements would involve such features. Therefore effects are uncertain in this respect. With regards to resilience, large new settlements should provide good opportunities to incorporate multi-functional green infrastructure which can help manage flood risk and other effects of climate change. Overall, an **uncertain (minor) negative effect** is predicted.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	/	/	/	/	/	/	++
A2: Urban focus	/	/	/	/	/	/	+
A3: Settlement Hierarchy	/	/	/	/	/	/	0
A4: Proportionate growth	/	/	/	/	/	/	-
A5: Urban intensification and new settlement	/	/	/	/	/	/	-?
A6: Urban focus and new settlement	/	/	/	/	/	/	-?
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	/	/	/	/	/	/	+
B3: Settlement Hierarchy	/	/	/	/	/	/	+
B4: Proportionate growth	/	/	/	/	/	/	-
B6: Urban focus and new settlement	/	/	/	/	/	/	-?
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	/	/	/	/	/	/	-?

## Historic Environment

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 are predicted to have **neutral effects** in terms of the service centres, as there would be no focused growth. The effects for options A2, A3, A4 and A6 would vary, as growth at each of the service centres would be different, and could give more or less flexibility in the choice of sites, and / or ability for mitigation.

As a general point, growth throughout the Soar Valley is likely to have greater potential to affect areas of potential archaeological importance, as these locations are where human activity has been focused. In terms of effects on the historic built environment, this varies for each settlement.

At Barrow-upon-Soar, none of the site development options are in locations that would lead to significant effects upon the character of the settlement or any historic assets. However, several of the sites are not logical extensions to the urban area, so could affect the feel of the urban fringes.

At Quorn there is sufficient development capacity in non-sensitive locations alongside the A6. Therefore, neutral effects for each option would be anticipated.

There are a variety of site options in Sileby. Effects upon cultural and natural heritage would be dependent upon which sites were developed. There are sizeable development opportunities at the urban fringe that ought to be possible to deliver without having a negative effect upon the character of the settlement. However, as arable land, these areas could be of importance for archaeology. At lower levels of growth such as for option A6, effects ought to be neutral, whilst they could be negative at the highest levels of growth such as for option A4.

At Rothley, the potential for negative effects is higher, as development could cut into Rothley Park, which provides the setting for a range of historic assets. Other development opportunities, such as at Woodcock Farm, would have the potential to affect the setting of a listed building (Woodcock Farm Barn). For option A4, the level of growth required would be higher, and so a negative effect could occur, whilst for option A6, it ought to be possible to avoid negative effects. For options A2 and A3 a minor negative effect is more likely.

For Anstey, growth opportunities could potentially sit to the south of the Conservation Area, affecting the open nature of this area. Development here could potentially have minor negative effects, but could probably be avoided at lower growth options. Other site options on the urban fringe are unlikely to have adverse effects on the character of the settlement, as they would likely be an extension to existing suburban housing development which has already shaped the character of these areas.

Overall, the effects on the service centres is not predicted to be significant for any of the options. Option A4, which proposes the most growth in these settlements, has the potential for negative effects, but only in Rothley and Sileby. Therefore, only a **minor negative effect** is predicted overall.

Options A2 and A3 would involve lesser growth, and so the effects could potentially be better managed. Consequently, an **uncertain negative effect** is predicted to reflect greater flexibility.

Option A6 would allow for growth to be delivered at suitable locations and densities to allow for negative effects to be avoided. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B6 involves similar growth to option A4, and therefore a **minor negative effect** is also predicted. Options B2, B3 and B4 involve much more growth in the service centres. In some of the settlements, this would be unlikely to have a substantially different effect given the location of potential development sites. However, at others such as Rothley and Sileby, there could be potential for more pronounced negative effects.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres with regards to heritage. At the scale of growth involved, it is unlikely that the character of settlements would be adversely affected. It should be possible to avoid sensitive sites and implement suitable mitigation.

## Historic Environment

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

For each of the options, it is likely that there would be maximisation of brownfield sites in the urban areas. For Shepshed, the majority of sites do not contain nor are adjacent to designated heritage assets. Development here would not be expected to affect the setting of more distant heritage assets either as they are relatively well screened or have no major bearing on the character of the area.

For Loughborough, there are several sites that fall within or adjacent to the Conservation Area and/or contain listed buildings. At some sites, it ought to be relatively easy to avoid harm to the historic environment, and perhaps achieve enhancement (for example, 45-54 Pinfold Gate falls within a site option, but this frontage could be retained and the surrounding built environment improved). There are sites adjacent to Conservation Areas that do not add to their character, and redevelopment ought to improve the built environment (for example, site options at Lemyngton Street, Land at True Lovers Walk / Frederick Street, Station Avenue, Leicester Road/Aumberry Gap). At other sites though, there could be potential negative effects on heritage that are difficult to avoid (for example; Rosebury School site - which could involve the loss of a listed building, or Land off Leicester Road – which could change the open nature of Loughborough Chapels). Overall, the effects in the urban areas of Loughborough and Shepshed would be anticipated to be neutral. There may be some minor negative effects at certain sites in Loughborough, but positive effects / enhancements at others. The effects in Shepshed urban area would not be substantial.

For each option there would also be a need (to differing extents) to release site options on the urban fringes of Shepshed and Loughborough.

The scale of growth involved for option A1 would necessitate most of the site options at Shepshed and / or one of the larger site options to the south of Loughborough. The effects on heritage assets from expansion at Shepshed would not be anticipated to be significant, given that there are very few designated heritage assets at the urban fringe. At Loughborough, the potential for effects is somewhat higher, as there are a number of heritage assets close to the Charnwood Forest. Development here would likely change the setting of these assets. At this level of growth, it may be possible to avoid the most sensitive locations through site choice or lower density development. A **significant negative effect** is predicted at this stage, though there is potential for this to be avoided dependent upon the sites involved.

For options A2, and A4, the level of growth is less compared to option A1, and it ought to be possible to avoid growth in areas of greatest sensitivity. A **minor negative effect** is therefore predicted.

For options A3 and A5, the growth would be lesser still, and therefore it ought to be possible to avoid sensitive areas. An **uncertain negative effect** is predicted though as effects could still occur be dependent upon the sites that were allocated.

For option A6, the level of growth would be lower than options A1, A2, A3, A4 and A5, and thus even greater flexibility would be afforded. Therefore, the effects are predicted to be **neutral**.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3, B4 and B6 all involve substantially greater growth than any option under scenario A. The effects upon sites on the rural fringes are therefore more likely to occur. **Significant negative effects** are predicted, which may be more difficult to avoid, especially for option B2.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for Loughborough / Shepshed with regards to heritage. At the scale of growth involved, it is unlikely that the character of the built environment would be adversely affected. It should be possible to avoid sensitive sites and implement suitable mitigation.

### PUA:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Effects of development in Thurmaston and Birstall are predicted to be neutral. The site options are either industrial in nature, or on the edge of established housing estates. Neither contains important heritage assets, nor do they contribute positively to the character of the settlements. Likewise, site options adjacent to the A5630 are not likely to have effects upon the historic environment.

## Historic Environment

However, site options to the north of Keyham Lane West (at Hamilton Grounds Farm), could have significant negative effects upon the Deserted village of Hamilton Scheduled Monument. An open rural setting is important to the Scheduled Monuments, and thus development in this location (particularly on the adjacent site option) could alter its setting.

There are a mix of smaller scale site opportunities in the urban area of Syston, and larger greenfield site options to the urban fringes. Though some of the urban options fall within the conservation area it should be possible to secure sensitive design that brings about improvements to the built environment. For options A1, A2, A3, A5 and A6 there would also be a requirement to release land at the urban fringes. The scale of growth required should be possible to accommodate without having substantial effects on the character of Syston.

For options A1, A2, A3, A5 and A6, there would be a need to release the majority of available sites at the principal urban area and some sites within Syston. Whilst this would have neutral effects in the most part, it could have effects upon the deserted village of Hamilton Scheduled Monument. Avoiding development at the Hamilton Grounds Farm site ought to be possible at this level of growth though, which should minimise the potential for negative effects. Overall, an **uncertain negative effect** is predicted.

For option A4, the level of growth is lower, and it would therefore be much more possible to avoid growth at the Hamilton Farm sites. Therefore a **neutral effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve the same level of growth as options A1, A2, A3, A5 and A6. Therefore an **uncertain negative effect** is also predicted. Despite option B4 involving double the amount of growth as option A4, the effects are still predicted to be **neutral** as there is sufficient flexibility to avoid effects.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA with regards to heritage. At the scale of growth involved, it is unlikely that the character of the built and natural environment would be adversely affected. It should be possible to avoid sensitive sites and implement suitable mitigation.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5, A6 and A7 involve no growth in the 'other settlements' and so neutral effects are predicted.

Options A3 and A4 both involve growth at the other settlements, with option A4 also involving some growth at smaller villages and hamlets (but less at the other settlements compared to option A3). Modest growth at some of the other settlements ought to be accommodated without having significant effects upon the character of the settlements or the historic core. For example, site options in Queniborough are unlikely to lead to major changes to the approach to the settlement or having negative effects on historic features. Likewise, site options in East Goscote and Hathern should not be particularly sensitive to change.

At other settlements, the potential for effects is higher. For example, Thrussington as a relatively small settlement with a rural character could potentially be adversely affected by growth. The extent of the settlement would be increased, and this could affect approaches into the village. At higher scales of growth, significant negative effects could be generated.

At Wymeswold, development of sites could affect the rural 'feel' of approaches into the village along East Road and narrow Lane. Whilst low density, sensitive schemes could possibly be delivered, a change to the character of the settlement is likely. And so minor negative effects could be anticipated.

There are several site options in Rearsby, and the effects would be dependent on those which were allocated. Potentially, the character of the Conservation Area could be affected at higher levels of growth.

At the smaller villages and hamlets, the potential to affect the character of settlements is likely to increase given their smaller size, rural nature and in some instances sensitive locations (for example Newton Linfield). However, the scale of growth would be fairly low if spread across the Borough. Therefore, the effects would not be anticipated to be significant overall.

Overall, option A3 is predicted to have a **minor negative effect**. Growth at the other settlements could be accommodated in the main, without having a significant effect upon settlements.

## Historic Environment

However, in some instances, negative effects would need to be managed. This ought to be feasible though by reducing growth to sensitive settlements and / or delivering low density, sympathetic design to emulate the rural feel of these settlements. An uncertain effect is recorded in line with the precautionary principle.

Option A4 is predicted to perform similarly. Though the more dispersed nature of this option would mean that smaller villages and hamlets could be adversely affected, the effects ought to be minor overall for the other settlements. The lower level of growth at the 'other settlements' compared to option A3, should also allow for effects in these locations to be better managed too, and so the negative effects are less certain.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth in the 'other settlements' and so **neutral effects** are predicted. The growth for option B3 is broadly the same as option A3 and so a **minor negative effect** is predicted. Option B4 involves double the growth at the other settlements and smaller villages compared to option A4. Therefore, the likelihood that sensitive sites could be affected increases, and it may be more difficult to avoid or mitigate effects. Consequently, the negative effects are more certain. A **minor negative effect** is still predicted for the other settlements though as the level and spread of growth should still allow for significant effects to be avoided.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the other settlements with regards to heritage. At the scale of growth involved, it is unlikely that the character of the built and natural environment would be adversely affected. It should be possible to avoid sensitive settlements, sites and implement suitable mitigation.

## Small Villages and Hamlets

### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under A4 would be very low in the context of overall development across the borough. However, housing development in such settlements could be substantial in the context of their scale and form. The majority of hamlets / small villages are designated as Conservation Areas and contain a number of listed buildings. Even a small amount of growth in these locations may alter the setting of the listed buildings as well as encroaching into the Conservation Areas. There should be some flexibility in the choice of sites and the spread of development to avoid significant effects in most locations and therefore only **minor negative effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under B4 would still be relatively low in the context of overall development across the borough. However, the increased growth at the small villages and hamlets could lead to more notable effects on the character of these settlements and the setting of listed buildings. There is therefore potential for **significant negative effects** at some of these settlements.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at small villages and hamlets and so a **neutral effect** is predicted for C1.

## New / expanded settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

The new settlement at Barkby is adjacent to the conservation area. Whilst there are no heritage assets on site as such, a development of this scale next to Barkby has the potential to alter the setting of the village. It may be possible to retain a rural feel to the development, but this would require a much lower density development.

A new settlement at Wymeswold / Hoton sits adjacent to Hoton village conservation area. Development of the scale proposed could therefore alter the setting of this village substantially. A negative effect is predicted, but it is acknowledged that the inclusion of buffer zones between the village and the airfield part of the site could mitigate adverse effects and help to ensure that the character of the village is better protected.

Cotes is a small village with several listed buildings and an adjacent Scheduled Monument (Cotes deserted medieval village). An application for a large scale mixed use development was submitted (P/13/1842/2) to the

## Historic Environment

Council and Historic England considered that there could be substantial harm to the Scheduled Monument on the basis of the plans submitted. Though a new scheme here could be designed and laid out differently so as to reduce harm, the potential for negative effects clearly exists.

A new settlement at Thurcaston would expand the built form of the settlement. However, this would be unlikely to be visible from the existing village centre, or along most routes through the village. The exception would be along Thurcaston Lane, where a new settlement could be visible and potentially affect the rural feel of the village approach. The edge of the site to the north west would also be adjacent to Mill House Farmhouse (Grade II Listed Building). The setting of the building could be adversely affected, given that it has a rural context.

Overall, options A5 and A6 (which involve the new settlements) have the potential to have negative effects upon the historic environment (as discussed above). However, despite the scale of development involved, it ought to be possible to mitigate effects by ensuring development incorporates green infrastructure, buffer zones and sympathetic design. At the Cotes location however, there is evidence that development could cause substantial harm to heritage assets, and so the potential for significant negative effects is greater. Overall, a **minor negative effect** is predicted reflecting the potential for mitigation and the lower magnitude of effects at three of the four locations.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not involve growth at new settlements and therefore **neutral effects** are predicted. Option B6 involves the same level of growth as options 5 and 6, and so a **minor negative effect** is predicted also. As per options A5 and A6 there are uncertainties as to whether the effects could be significant.

### Scenario C (Discussion of options for delivering a standalone large settlement)

The effects on the historic environment will be largely dependent upon location. As this is not known for certain at this stage, there is an inherent degree of uncertainty in the assessment. Commentary is provided for the three broad areas of opportunity. To the west of Shepshed, a new settlement would not be likely to lead to a direct loss of heritage assets, nor should it affect the setting of heritage assets in Shepshed. Although there is a scheduled monument over the local authority boundary, it ought to be possible to mitigate effects on the setting of this asset. A new settlement to the east of Loughborough in the open countryside ought to be able to avoid direct effects upon designated heritage assets. Though the character of the landscape would be affected in this location, which could change the character of smaller settlements nearby, it should be possible to avoid significant effects on heritage. To the north east of the Leicester urban area a new settlement would likely be in the open countryside, and it ought to be possible to avoid the direct loss of heritage assets. However, there could potentially be effects on the setting of nearby assets and settlements. Overall, it is likely that significant negative effects could be avoided regardless of location. However, it is not possible to rule out adverse effects at this stage, and so a **minor negative effect** is recorded.

### **Overall effects**

Option A1 is predicted to have a **minor negative effect** overall across the district. Adverse effects would be avoided at the service centres and other settlements and there would be no new settlements. Whilst the effects at the PUA could potentially be avoided (hence an uncertain negative effect), there could be significant negative effects in Loughborough both within the urban area and at the urban fringes. Nevertheless, the lack of effects in sensitive locations throughout the Soar Valley, and the potential to minimise effects in Loughborough means that the effects are not significant overall across the borough when considered holistically.

For option A2, a **minor negative effect** is also predicted. However, the effects would be generated in different areas compared to option A1. Due to the scale of growth at the service centres, it might be difficult to avoid effects upon heritage assets in some settlements. There may also be greater potential to affect areas of archaeological value given past activity along the Soar Valley. The effects in Loughborough are less likely to be negative (compared to option A1), but there is some uncertainty for the PUA. Overall, a minor negative effect is predicted.

Option A3 could have potential negative effects at multiple locations across the district. However, it could be possible to avoid effects at the PUA, Service Centres and Loughborough/Shepshed. The effects upon other settlements are more likely to occur, but these are only minor. Overall, the effects are predicted to be **uncertain negative** as it may well be possible to minimise effects in the majority of the settlements.

Option A4 would have similar effects to option A3, but a lower growth in the PUA would mean that negative effects here were less likely. However, the effects at service centres and Loughborough would be more certain to occur. Overall, a minor negative effect is still predicted, reflecting effects on the character of a number of settlements across the district.

## Historic Environment

Option A5 is predicted to have an **uncertain minor negative effect** overall. There could be negative effects associated with the new settlements. However, the minor effects at Loughborough and the PUA, could probably be mitigated or avoided depending upon the location of sites involved and design. Neutral effects are also predicted for service centres and smaller settlements, which have sensitive character. The overall picture is therefore likely to be mostly neutral, but in line with the precautionary principle an uncertain effect is identified overall.

Option A6 is predicted to have similar effects to option A5, though the focus on service centres instead of Loughborough would be less likely to have negative effects. Overall an uncertain **minor negative effect** is predicted.

Options B2, B3, B4 and B6 are all predicted to have **significant negative effects** overall. Each option could have major effects in Loughborough, as well as at the service centres for B2, B3 and B4. Generally, the effects are lower at the other settlements and the PUA. Option B6 would have fewer effects across the district compared to options B2, B3 and B4, but still generate significant effects in Loughborough. Overall, the effects on multiple settlements, although minor is considered to be significant at the borough level when considered alongside the effects at Loughborough.

Though each of these options could generate significant negative effects, it is important to acknowledge that mitigation, avoidance (though more difficult at this scale of growth) and enhancement could be secured through accompanying plan policies. Therefore, this level of growth is not inherently significant with regards to the historic environment.

At this stage however, uncertainty about sites and the policies that would support the strategy means that a significant effect ought to be predicted.

Option C1 is predicted to have mostly neutral effects on heritage across the district due to the low levels of growth at existing settlements. Whilst a large new settlement would undoubtedly change the character of the countryside in whichever area it was located, it ought to be possible to avoid significant effects on heritage. There is potential for minor negative effects at a new settlement, but this is offset by the protection of assets throughout the rest of the borough. The overall impacts are therefore **uncertain minor negative effects**.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	--	-?	0	0	0	-
A2: Urban focus	-?	-	-?	0	0	0	-
A3: Settlement Hierarchy	-?	-?	-?	-	0	0	-?
A4: Proportionate growth	-	-	0	-?	-	0	-
A5: Urban intensification and new settlement	0	-?	-?	0	0	-	-?
A6: Urban focus and new settlement	0	0	-?	0	0	-	-?
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	--	--	-?	0	0	0	--
B3: Settlement Hierarchy	--	--	-?	-	0	0	--
B4: Proportionate growth	--	--	0	-	--?	0	--
B6: Urban focus and new settlement	-	--	-?	0	0	-	--
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	-	-?

## Population: Poverty and deprivation

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 do not propose growth in the service centres, and therefore the effects upon deprivation are not likely to be significant. The service centres are broadly characterised by low levels of multiple deprivation (with the exception of small pockets at Mountsorrel and Sileby that fall within the 20-40% most deprived areas. In the absence of growth, it is therefore unlikely that deprivation would worsen or improve to a significant degree. However, a lack of growth does not allow for the support of new social / community infrastructure. **Neutral effects** are predicted.

For option A2, and to a lesser extent option A4, there would be moderate growth at the service centres. Assuming a relatively even distribution of growth between the service centres, there is potential for positive effects in tackling pockets of deprivation through development contributions to schools, play areas and open space. This would be most beneficial in Mountsorrel and Sileby, where deprivation is slightly worse than at other service centres. Whilst increased growth could (conversely) have negative effects by increasing traffic congestion and putting pressure on services, the level of growth involved for these options is fairly modest, and so such issues ought to be avoided. On balance, the effects are likely to be **uncertain (minor) positive**, as the benefits in areas of greatest need would not be assured.

The slightly lower growth options A3 and A6 are unlikely to have a notable effect on levels of deprivation, and therefore **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B4 proposes 4,579 dwellings at service centres. Option B2 and option B3 propose similar, but slightly lower levels of growth. All three options would require maximisation of sites for development, which would result in less flexibility on deciding which sites should be brought forward. Whilst the increased level of growth would bring with it higher levels of traffic and potential amenity issues for existing communities, it should also bring more affordable housing and greater contributions to community infrastructure improvements that can help to tackle deprivation. On balance, a **minor positive effect** is predicted.

Option B6 proposes a similar level of growth at the service centres as option A4, therefore **uncertain minor positive effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

At very low levels of growth it is unlikely that deprivation would worsen or improve to a significant degree. However, a lack of growth does not allow for the support of new social / community infrastructure. The service centres are generally characterised by low levels of deprivation though and so **neutral effects** are predicted.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option A (4,750 dwellings) and to a lesser extent option A4 (3,590) would bring the most growth to Loughborough and Shepshed and therefore have the greatest potential to impact upon poverty and deprivation in these areas. This level of growth could bring forward development on a more strategic level and potentially be able to tackle areas that fall within the top 10% most deprived areas in the UK, including Loughborough Storer and Loughborough Hastings ward that lie to the east of the city. If growth can be considered on a larger scale then the incorporation of enhanced or new facilities and schools could be brought forward alongside developments. There are a small number of sites available within the most deprived areas surrounding Loughborough and Shepshed which could be developed to help alleviate some of the issues relating to poverty and deprivation (i.e. affordable housing, play space). However, greater benefits could be derived if growth includes larger sites to the edge of the current built up area. These larger sites currently have low levels of deprivation, but in some places (e.g. to the south east of Loughborough) adjoin areas that have a higher level of deprivation. Therefore growth on a larger scale could provide greater opportunities to deliver the required infrastructure to support improvements that deprived communities can benefit from. A **significant positive effect** is predicted for option A1 and a **minor positive effect** for option A4.

Options A2, A3 and A4 all look to deliver between 2,000 – 3,000 dwellings split between both Loughborough and Shepshed. This level of growth would help to provide affordable housing and associated improvements to facilities, but at a lesser extent compared to option A1. The necessity to develop larger strategic sites would be lower for these options, and therefore, the benefits accrued may not be as substantial. Therefore, only **minor positive effects** are predicted. The increase in traffic generated as a result of growth would be unlikely to have significant effects upon deprived communities.

## Population: Poverty and deprivation

Option A5 (1,750) and to a greater extent option A6 (1,000) would bring forward the least amount of growth, which could be mainly accommodated by the smaller sites that sit within the urban area. Developing these sites could lead to small scale improvements in deprived areas by provision of affordable housing and community facilities such as play space. However, the scale of the sites and growth overall is unlikely to support strategic improvements to infrastructure. Therefore, the effects are likely to be very focused and it is uncertain if tangible benefits would be accrued. Conversely, a lack of substantial growth in Loughborough and Shepshed could help to alleviate pressure on existing services and infrastructure. On balance, **uncertain positive effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 proposes the highest level of growth to Loughborough and Shepshed (8,270 dwellings). This level of growth reaches the maximum SHLAA capacity, therefore all sites identified would have to be brought forward for development. This growth would help to secure more affordable homes, and would also be required to contribute towards enhancements to services and facilities including health, education and recreation. As well as the jobs created through growth, this option would therefore be likely to have positive effects in terms of helping to tackle deprivation. Sites adjacent to deprived areas would most certainly need to be developed, which could have particular benefits, if on-site facilities are accessible to existing communities. However, at this scale of growth there is also potential for more traffic and congestion in the urban area, which could affect deprived communities. A loss of open space at the urban fringe could also be perceived as negative by residents who access this land for recreation. In particular, there would be a loss of land adjacent to the Charnwood Forest. On balance a **minor positive effect** is predicted. It would be important to ensure that phasing of development took account of the capacity of facilities, or there may be potential for short term negative effects in terms of access to education and health facilities.

Options B3, B4 and B6 all propose around 7,000 new dwellings to Loughborough and Shepshed. These options would have similar effects to option B2 in terms of bringing new housing and infrastructure. As the level of growth is slightly lower, there would be less pressure to develop all sites, but the potential for negative effects would still exist given the need for the loss of open space, and an increased pressure on services and infrastructure (at least in the short term). Consequently, the effects are predicted to be positive, but not significant.

### Scenario C (Discussion of options for delivering a standalone large settlement)

At a low level of growth it is unlikely that deprivation would worsen or improve to a significant degree. However, a lack of growth does not allow for the support of new social / community infrastructure. Given that some parts of Loughborough fall within the top 20% deprived communities in the country, this could be viewed as a missed opportunity. Therefore, **uncertain negative effects** are predicted.

## PUA:

### Scenario A (Discussion of options for delivering 8,100 homes)

There are a number of sites that could accommodate growth on the edge of Leicester. Whilst the majority of these do not fall directly within areas of high multiple deprivation, they are adjacent to areas in the City that fall within the top 10 % deprived nationally (for example Stocking Farm ward in Leicester City is within the top 10%, also Rushley mead ward falls within the top 20% most deprived wards). Sites to the south-west of Syston and East Syston also fall within the top 30% most deprived wards in the country. Growth in these locations has the potential to benefit nearby communities through contributions to infrastructure improvements (social and physical), and greater availability of affordable housing. However, these areas are also in areas that could suffer negative implications. For example, traffic is expected to increase along the A563 and is likely to have the greatest impact on the deprived areas which are in the closest proximity to the road network. Therefore, positive effects are likely to be offset slightly by a loss of open space, increased traffic and short term pressure on existing services.

Options A1, A2, A3, A5 and A6 all propose a fairly modest amount of growth in the PUA. Though there could be some minor negative effects (as identified above), the positives should outweigh these and target growth to areas that are most in need of investment. Therefore, overall, a **significant positive effect** is predicted.

Option A4 (1,067 dwellings), would bring a lower level of growth to the edge of Leicester. Therefore, the effects (positive and negative) on deprivation would be less significant. An **uncertain minor positive effect** is predicted.

## Population: Poverty and deprivation

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2, B3 and B6 all propose the same level of growth as options A1, A2, A3, A5 and A6 discussed above. Therefore **significant positive effects** are also predicted.

Option B3 proposes a slightly lower level of growth (2,068). This is predicted to have a **minor positive effect**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Given the low level of growth involved, it is unlikely that deprivation would worsen or improve to a significant degree. However, lower levels of growth do not allow for the support of new social / community infrastructure. Given that some parts of the Leicester urban area fall within the top 20% deprived communities in the country, this could be viewed as a missed opportunity. **Neutral effects** are predicted.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 & A6 propose no development at other settlements and smaller settlements. These areas are mostly located in areas with low levels of multiple deprivation. Therefore, the need for regeneration and growth to tackle deprivation is not a priority here. Whilst a lack of growth would not help to tackle rural accessibility issues, it would be expected to have a **neutral effect** with regards to deprivation.

Option A3 and to a lesser extent option A4 propose a small level of growth to other settlements and villages. As these areas are generally characterised by low levels of deprivation, this growth would not be anticipated to have significant effects as it is small scale and not in priority areas. However, if increased growth is not matched sufficiently with enhancements to local facilities and services, levels of deprivation could perhaps decline in some domains. On balance, the effects are likely to be **neutral** in terms of levels of deprivation.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 propose no growth and thus a **neutral effect** is predicted as per options A1, A2, A5 and A6.

Whilst options B2 and B4 propose growth at the other settlements, the effects are also predicted to be **neutral** with regards to deprivation for the reasons discussed above for options A3 and A4.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 proposes limited development at other settlements and smaller settlements. These areas are mostly located in areas with low levels of multiple deprivation. Therefore, the need for regeneration and growth to tackle deprivation is not a priority here. Whilst a lack of growth would not help to tackle rural accessibility issues, it would be expected to have a **neutral effect** with regards to deprivation.

### **Small Villages and Hamlets**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under A4 would be low in the context of overall development across the borough. The smaller villages and hamlets are broadly located in areas of low deprivation, and so positive effects in this respect are unlikely to occur by locating small amounts of growth in these areas. Conversely, the amount of growth directed from other areas that could benefit more from growth is minimal. Therefore, **neutral effects** are predicted overall.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Therefore, **neutral effects** are predicted for all other options under this scenario. Though higher than growth under A4, the level of growth for B4 would still be low in the context of overall development across the borough. Therefore, **neutral effects** are still predicted overall.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

## Population: Poverty and deprivation

### New / expanded settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

With the exception of Barkby, the new settlements are not located in areas that could be accessed by nearby communities with high levels of deprivation. Given that options A1, A2, A3, and A4 do not propose growth in new settlements, the effects are therefore likely to be **neutral** as no existing communities would be likely to be affected (positively or negatively).

Options A5 & A6 (3,000 homes) would look to bring forward growth to new settlements within Charnwood. A new settlement at Barkby, Wymeswold / Hoton, Thurstaston and Cotes could incorporate opportunities for new facilities to be provided alongside housing growth in order to create sustainable communities. Whilst this would not necessarily help to tackle deprivation in existing communities, it ought to ensure that future communities are less likely to become deprived (by ensuring they are sustainable to begin with). Growth at Barkby may also benefit deprived communities at Syston and Thurmaston, through improved access to associated services and facilities such as health care and formal open space. An **uncertain minor positive effect** is predicted as access is not immediate and might not be taken up by residents without access to a car.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not proposed any growth at new settlements, therefore effects are **neutral**.

Option B6, proposes the delivery of 3,000 dwellings to new settlements, the same as option A5 and A6 discussed above, therefore **uncertain minor positive effects** are also predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

A new settlement is unlikely to have direct benefits for deprived communities through the delivery of social infrastructure or access to facilities. However, the provision of new affordable homes with mixed tenures could present opportunities for some residents to access better quality housing. Whilst this would not necessarily help to tackle deprivation in existing communities, it ought to ensure that future communities are less likely to become deprived (by ensuring they are sustainable to begin with). An **uncertain minor positive effect** is predicted.

### Overall effects

Option A1 proposes the majority of growth to the PUA and Loughborough / Shepshed. Due to there being areas of deprivation in both these locations, there is potential to have significant positive effects. Though no growth is focused at other settlements across the borough, the levels of deprivation in these areas is broadly low, so the effects would be mainly neutral. The overall effects are still considered to be **significantly positive**.

For Option A2 the effects at the PUA would likely to be significantly positive too, but the positive effects in other locations are more uncertain. Therefore, a **minor positive effect** is predicted overall.

Option A3 proposes further dispersal away from the service centres to the other settlements. As deprivation is not a prevalent issue in the other settlements, the effects of growth in these locations is broadly neutral. Diverting growth from the service centres would reduce the potential positives in this area too. A **minor positive effect** is predicted overall reflecting the significant effects that would be generated at the PUA.

Option A4 proposes proportionate growth. This would direct less growth to the PUA and Loughborough and therefore lacks the positive effects in these locations. There is greater uncertainty about the positive effects in the PUA and the Service Centres too. Overall, this constitutes an **uncertain minor positive effect**.

Option A5 would also generate significant positive effects at the PUA. However, due to lower levels of growth in Loughborough, the positive effects are only minor. There could also be neutral effects at the service centres and other settlements. This creates a less positive picture across the borough overall, but there could also be some positive effects by creating new sustainable settlements. Therefore a **minor positive effect** is predicted.

Option A6 is similar to option A5, but the implications for the service centres would be neutral rather than potentially negative. This still equates to a **minor positive effect** overall.

Whilst Options B2 and B3 would have similar benefits with regards to the PUA, they both propose a substantial additional amount of growth at the service centres and Loughborough / Shepshed. The increased benefits from growth include more affordable housing and infrastructure investment. However, this large increase in growth could also have negative implications in terms of increased traffic and a loss of open space.

## Population: Poverty and deprivation

Therefore, the positive effects are only considered to be minor for Loughborough and the Service Centres. Overall, a **significant positive effect** is predicted as there would be benefits across most of the Borough, including in the most deprived areas.

Option B4 proposes proportionate growth, which would not achieve the same positive effects at the PUA compared to options B2, B3 and B6. The effects overall are predicted to be a **minor positive**.

Option B6 is similar to option A6, but a greater amount of growth at Loughborough would lead to more certain positive effects, and there would also be greater potential for positive effects at the service centres. Combined with a significant positive effect at the PUA and minor positives a new settlements, the overall effects are considered to be **positive significant effects**.

Option C1 is predicted to have neutral effects for most parts of the Borough owing to the large focus on one new settlement. At a new settlement, new communities ought to benefit from higher quality design and access to facilities and services, hence making it less likely that these areas will become deprived in the future. However, the benefits for existing communities are likely to be limited (i.e. to those moving into the area). Consequently, the overall effects are predicted to be **neutral**.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	++	++	0	0	0	++
A2. Urban focus	+ <sup>?</sup>	+ <sup>?</sup>	++	0	0	0	+
A3. Settlement Hierarchy	0	+ <sup>?</sup>	++	0	0	0	+
A4. Proportionate growth	+ <sup>?</sup>	+	+ <sup>?</sup>	0	0	0	+ <sup>?</sup>
A5. Urban intensification and new settlement	0	+ <sup>?</sup>	++	0	0	+ <sup>?</sup>	+
A6. Urban focus and new settlement	0	+ <sup>?</sup>	++	0	0	+ <sup>?</sup>	+
<b>Scenario B – 15,700 homes</b>							
B2. Urban focus	+	+	++	0	0	0	++
B3. Settlement Hierarchy	+	+	++	0	0	0	++
B4. Proportionate growth	+	+	+	0	0	0	+
B6. Urban focus and new settlement	+ <sup>?</sup>	+	++	0	0	+ <sup>?</sup>	++
<b>Scenario C - Standalone new settlement</b>							
C1. Large scale new settlement	0	0	0	0	0	+ <sup>?</sup>	0

## Population: Healthy and active lifestyles

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 do not propose growth in the service centres. Consequently, the loss of open space from new development would be less likely to occur. There are health facilities in these locations which are accessible, and a lack of further growth would mean that additional pressure on these services would be reduced. Conversely, a lack of growth does not allow for improvements to be made through development contributions to new or enhanced services, nor green infrastructure and recreational improvements. The effects are therefore predicted to be **neutral**.

Option A6 proposes the lowest level of growth to the service centres. The choice of sites ought to be flexible, and those with good access to health and recreational facilities could be developed. The effects on open space and recreation would be limited given the scale of growth at each Service Centre, but likewise, the effects on services and facilities would be less pronounced. Overall, **neutral effects** are predicted.

Option A3 proposes double the amount of growth compared to option A6, and so there could be increased pressures on open space and health facilities. Most of the service centres have at least one GP surgery, with the exception of Rothley, whereby increasing pressure would be put on nearby services at Mountsorrel. At this scale of growth, there may not be a critical mass to support new facilities. Where it is not possible to expand sites, residents may therefore need to travel further to access facilities and services, which is an **uncertain minor negative effect**. Conversely, a higher level of growth could (particularly on larger sites) present opportunities to secure local improvements to green infrastructure and open space provision. These are **uncertain minor positive effects**. Overall, a mixed effect is predicted.

Options A2 and A4 involve slightly higher growth compared to option A3. The increase in population would have the potential to put increasing pressure on existing health and leisure services, unless new / enhanced services were brought forward along with this proposed level of growth in housing. There would also be greater pressure to release greenfield land, which could be used for recreation. Consequently, **minor negative effects** could occur. However, growth also brings potential for enhancement, and the service centres are broadly well located in terms of access to recreation opportunities. **Minor positive effects** are also predicted. Overall, the effects are mixed.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B4 at the higher growth level proposes 4,579 dwellings at service centres. Option B2 and option B3 propose similar, but slightly lower levels of growth. Each of these options could have negative effects by putting substantial pressure on existing services. However, at the level of growth involved, it ought to be possible to support new facilities which would benefit new and existing communities. The larger sites that may be involved could also present more opportunities for strategic improvements to open space and green infrastructure. Consequently, a **significant positive effect** is predicted in the long term. However, **minor negative effects** are also predicted, as some residents may perceive a loss of open space as negative, and may suffer from poorer access to facilities in the short term.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

A low level of growth is predicted at the service centres. With regards to a loss of open space and recreational facilities, the effects are therefore likely to be neutral. Conversely, there are low chances of securing enhancement to green infrastructure. As the level of growth is low, the pressure on health facilities and other services would also be minor, and so **neutral effects** are anticipated.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Currently, there are two GP surgeries located in Shepshed, 4 within the built up area of Loughborough and an additional three GP surgeries dispersed between the two areas.

By locating growth in locations close to the centre of town in Loughborough and Shepshed there is the opportunity to ensure good access to current health and leisure facilities, along with opportunities to improve access to open space, including green linkages throughout the built up area.

Sites able to accommodate larger growth are on the edges of the built up area. Therefore access to health services in these locations would be more distant unless new facilities were secured alongside development.

Option A1 (4,750) proposes the highest level of growth and some of the larger sites would need to be developed to achieve this target.

## Population: Healthy and active lifestyles

This could lead to a loss of open green space on the urban fringes, some of which is valuable as recreational space and is a gateway to the Charnwood Forest. Though enhancements might be delivered as part of development, the potential for negative effects exists. The pressure on health services would also be substantial at this level of growth, so enhancement or new facilities would be required. At this scale of growth, there remains some flexibility in the choice of sites and densities, so it ought to be possible to plan for health and recreation positively. However, a potential **minor negative effect** is predicted to reflect these issues. **Significant positive effects** are recorded relating to good accessibility in the urban centre to health facilities and enhancement opportunities at the urban fringe.

Options A2 and A4 have the potential to direct development to some of the smaller more accessible sites within the built up urban areas, alongside a smaller number of large sites on the edge of Loughborough and Shepshed, which could create the critical mass for new facilities. The larger sites could also bring opportunities to create new recreational spaces, which could encourage participation in recreation without resulting in wholesale development of open space at the urban fringes. Whilst these are positive effects, they are less likely to be significant compared to option A1. However, the negative effects are also less likely to be prominent.

Options A3 and A5 propose slightly lower growth than options A2 and A4, and so it ought to be possible to avoid negative effects. However, the likelihood of positive effects occurring is also more uncertain.

Option A6 proposes the least growth to sites located close to Loughborough and Shepshed. If development was focused on the smaller sites within the current built up urban area, there would be good access to existing health facilities, and avoidance of the loss of open space. Whilst there may be additional pressure put upon the existing services, they should be able to accommodate this level of growth dispersed across the urban area. Conversely, there are less opportunities to provide new services, or to improve access to open space and promote/provide recreational facilities at the urban fringe. Consequently, **neutral effects** are predicted overall.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 would deliver the highest level of growth to Loughborough and Shepshed (8270 dwellings). To a lesser extent option B3, B4 and B6 propose around 7,000 new dwellings. The effect this could have on healthy and active lifestyles in the area could be significant as large amounts of greenfield land would be needed to deliver this growth, along with increasing pressures on existing health services and recreational facilities. There would be a need to deliver development on large sites for each of these options, which ought to support new health and recreational facilities if planned strategically. This could have **significant positive effects** for new communities, but also for those in surrounding areas (some of which have high levels of deprivation) that could access these new facilities and also improve links into the Charnwood Forest if well designed. Conversely, in some areas, there would be a loss of open space and a lack of new health and leisure facilities, meaning that communities in these areas could be negatively affected.

The strategic nature of development that would be required to deliver these levels of growth could also mean that new services and facilities are not delivered in the early phases. This could generate short term negative effects. Overall mixed effects are predicted, with both the positives and negatives being significant.

### Scenario C (Discussion of options for delivering a standalone large settlement)

At the level of growth proposed, the likelihood of effects upon health services are minor, and so neutral effects would be anticipated. Likewise, there would be minimal loss of open space and recreation. However, opportunities to secure enhancements to public facilities and green infrastructure through development would be limited. Therefore, the overall effects in this area are likely to be neutral.

## PUA:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 (3,350 dwellings) all focus growth to the edge of Leicester into the urban area of Thurmaston, Birstall and Syston. These areas all have reasonable access to health facilities and recreational facilities (for example Watermead Country Park), so new development ought to be well located in this respect, which is positive. The level of growth involved however could put pressure on these facilities unless supported by enhancements, which is a potential negative effect. The level of growth and sites involved ought to allow for such enhancements, though some existing facilities could be unable to expand. An **uncertain negative effect** is predicted in this respect.

Development on some sites which are currently privately owned could lead to improved access to open green space if enhancements are secured to green infrastructure. This could help to increase participation of physical activity helping to improve health and wellbeing. Therefore; **minor positive effects** are also predicted.

## Population: Healthy and active lifestyles

Option A4 proposes 1,067 new dwellings at the edge of Leicester. This level of growth could also put pressure on existing services, but would be less likely to impact upon open green space. Therefore, it ought to be possible to avoid negative effects for this option. The likelihood of positive effects occurring would be lower though, so a **neutral effect** is predicted overall.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 all propose the same level of growth at options A1, A2, A3, A5 and A6 discussed above; therefore mixed effects are predicted also.

Option B2 proposes to deliver 2,068 dwellings to the PUA. This could put pressure on health services in the area, and may involve a greater risk of open green space being affected (compared to option A4). However, there is also a greater potential for enhancements to green infrastructure being secured. Compared to options B2, B3 and B6, the certainty of positive effects occurring would be lower, so an **uncertain positive effect** is predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

A low level of growth is predicted at the urban fringes of Leicester. With regards to a loss of open space and recreational facilities, the effects are therefore likely to be neutral. Conversely, there are low chances of securing enhancement to green infrastructure. As the level of growth is low, the pressure on health facilities and other services would also be minor, and so **neutral effects** are anticipated.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 and A6 involve no growth in the 'other settlements' and so **neutral effects** are predicted with regards to healthy lifestyles. Without substantial growth in these areas, the critical mass for new health facilities would not be generated, and so it would only lead to more people having to travel further to access facilities if additional growth was located here. The lack of development would also help to protect green and open space, which is used for recreation.

Options A3 and A4 involve growth at the other settlements, with option A4 also involving some growth at smaller villages and hamlets (but less at the other settlements compared to option A3). Modest growth at some of the other settlements ought to be accommodated without having significant effects upon the health and active lifestyles of the population. However, an increase in the population at settlements that current have no GP surgery and leisure facilities would mean that access to services was poor for some new residents. This would lead to a need to travel to higher order settlements (For example, residents at Queniborough, East Goscote and Thrusington may need to use GP services at Syston). A **minor negative effect** is recorded in this respect for both options.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth in the 'other settlements' and so **neutral effects** are predicted.

Options B3 and B4 pose a similar level of growth to other settlements as option A3 discussed above, therefore **minor negative effects** are predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

A low level of growth is predicted at the other settlements. With regards to a loss of open space and recreational facilities, the effects are therefore likely to be neutral. Conversely, there are low chances of securing enhancement to green infrastructure. As the level of growth is low, the pressure on health facilities and other services would also be minor, and so **neutral effects** are anticipated.

## Small Villages and Hamlets

### Scenario A (Discussion of options for delivering 8,100 homes)

Only option A4 would involve growth at the hamlets and small villages. Development here would have poor access to health facilities and other services and would not generate the demand for local improvements. Therefore, access to health for new residents would be reliant on car travel. The loss of open space is also likely to occur, but this should not affect the wider accessibility to the countryside given the location of such settlements.

## Population: Healthy and active lifestyles

Overall, the effects are likely to be **neutral** given the very low level of new development involved.

### Scenario B (Discussion of options for delivering 15,700 homes)

Only option B4 would involve growth at the hamlets and small villages. Development here would have poor access to health facilities and other services and would not generate the demand for local improvements. Therefore, access to health for new residents would be reliant on car travel. The loss of open space is also likely to occur, but this should not affect the wider accessibility to the countryside given the location of such settlements. Overall, the effects are likely to be **minor negative** for B4 on a local basis.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets and so a **neutral effect** is predicted for C1.

## **New / expanded settlements:**

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, and option A4 do not propose growth at other settlements, and therefore effects are **neutral**. There are no existing communities likely to be affected.

Option A5 and A6 (3,000 dwellings) could deliver a significant amount of growth to new settlements. There are limited health and leisure services within the close vicinity of the new settlements at present, with nearby settlements mostly reliant on the service centres for health and leisure facilities. However, at such a scale of growth it ought to be possible to create the critical mass for new satellite health facilities to serve new communities (and any nearby lower order settlements such as Barkby, Wymeswold, Hoton). Therefore, the new communities ought to be well served by health and community facilities.

The scale of the sites should also help to secure accessible green infrastructure for new residents, and for nearby communities if good links are created. Given that these areas are not specifically used for recreation at present, this could be an improvement on the baseline position and could be a significant positive effect. However, without scheme details, it is not possible to be certain about the extent of positive effects, so a **minor positive effect** is predicted at this stage.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not propose growth at new/expanded settlements, and therefore effects are **neutral**. Options B6 proposes the same level of growth as options A5 and A6, therefore a **minor positive effect** is predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 would involve a significant amount of growth at one new settlement. At the scale of growth involved, there would be a requirement to deliver new education and health facilities. Therefore new communities would be likely to be well served.

Nearby settlements may also benefit from access to new improved facilities (though it is unclear which these would be at this stage). There would be a loss of large amounts of open countryside, but it is less likely that this would be used by communities (such as open space on the fringes of larger settlements).

A new settlement would also be expected to incorporate garden village principles and so green infrastructure improvement should be a key element of the development(s). Consequently, access to quality greenspace for recreation ought to be good for residents in these areas. A **significant positive effect** is predicted overall to reflect the likelihood of new facilities being established and enhancements to green infrastructure. The benefits would only be likely to accrue in the longer term though as a new settlement of this scale would require considerable planning.

## **Overall effects**

Option A1 is predicted to have a **minor positive effect** overall across the borough. Whilst the effects across much of the borough would be neutral, there could be significant positive effects in Loughborough and minor benefits at the PUA. However, there may also be negative effects for some communities in Loughborough which offset the positives somewhat.

## Population: Healthy and active lifestyles

Option A2 is less likely to generate a significant positive effect in any one location, and there may be mixed effects at the service centres, Loughborough/Shepshed and the PUA. However, the positives are more pronounced and are likely to outweigh the negatives overall. A **minor positive effect** is predicted overall.

Option A3 is likely to have less prominent and more uncertain effects due to the dispersal of growth, both positive and negative.

Whilst the loss of open space in any one location would be lower, opportunities to deliver new facilities along with population growth could be more limited due to the growth being dispersed.

Growth at the other settlements would also lead to negative effects by placing people in less accessible areas. Overall, a **neutral effect** is predicted, as there could be gains and losses in different areas, but no significant change Borough trends.

Option A4 is predicted to have similar effects to option A3, though there would be less potential for positive effects at the PUA, and greater potential for negative effects at the service centres. Conversely, the positive effects are more certain at the service centres and Loughborough / Shepshed. Overall, a **neutral effect** is predicted, as there could be gains and losses in different areas, but no significant change to Borough trends.

Options A5 and A6 are both predicted to have **minor positive effects** overall. Neither option is likely to generate significant negative effects, and in the main, the effects would be neutral across the borough with the exception of the PUA and at new settlements. In particular, the new settlements could create new facilities and enhancements to green infrastructure that benefit new and existing communities.

Option B2 delivers a substantial amount of growth to Loughborough / Shepshed and the Service Centres. This would necessitate the development of larger sites in these areas and could create the critical mass to support new health facilities. Though there would be significant loss of open space, there could be enhancement to recreational facilities, and overall the positive effects should outweigh the negatives in these locations. Overall, a **minor positive effect** is predicted.

Option B3 would have similar effects to option B2, but there could be negative effects at the other settlements associated with poor access to facilities. Overall, a **minor positive effect** is predicted.

Option B4 proposes proportionate growth, which also involves substantial growth at Loughborough/Shepshed. The effects here are therefore similar to options B2, B3 and B6. However, the positive effects at the service centres and the PUA would be less pronounced due to fewer opportunities to support new and enhanced facilities. Minor negative effects are also predicted for the other settlements and the small villages and hamlets. An **uncertain positive effect** is predicted overall, as it is more likely, but unclear whether the positives would outweigh the negatives.

Option B6 is likely to have similar effects to option B2, but with the additional benefits that could be generated at the PUA. Consequently, a **significant positive effect** is predicted overall.

Overall, option C1 is predicted to have a minor positive effect with regards to health and wellbeing. There would be mostly neutral effects across much of the borough due to low levels of planned development. Whilst this would reduce pressure on facilities and open space, it would not help to instigate improvements.

Significant growth at a new settlement would ensure new communities have good access to health and educational facilities, open space and perhaps other leisure facilities. This would have significant benefits in this location, but only in the longer term. On balance a **minor positive effect** is predicted across the borough as a whole as the significant positive effects would be concentrated in one location and only accrue in the long term, possibly beyond the plan period.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects			
<b>Scenario A – 8,100 homes</b>										
A1: Urban intensification	0	-	++	-?	+	0	0	0	+	
A2. Urban focus	-	+	-?	+	-?	+	0	0	0	+
A3. Settlement Hierarchy	-?	+?	0	+?	-?	+	-	0	0	0
A4. Proportionate growth	-	+	-?	+	0	-	0	0	0	0
A5. Urban intensification and new settlement	0	0	+?	-?	+	0	0	+	+	+
A6. Urban focus and new settlement	0	0	-?	+	0	0	0	+	+	+
<b>Scenario B – 15,700 homes</b>										
B2. Urban focus	-	++	--	++	-?	+	0	0	0	+
B3. Settlement Hierarchy	-	++	--	++	-?	+	-	0	0	+
B4. Proportionate growth	-	+?	--	++	-?	+?	-	-	0	+?
B6. Urban focus and new settlement	-	++	--	++	-?	+	0	0	+	++
<b>Scenario C - Standalone new settlement</b>										
C1. Large scale new settlement	0	0	0	0	0	0	0	++	+	+

## Population: Housing

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Should the objectively assessed housing need be achieved, this would lead to positive effects on housing. However, setting a target in line with the OAN, does not necessarily mean it will be achieved if there are issues of deliverability and phasing. Therefore, at this scale of growth, the potential for significant positive effects could be reduced somewhat.

The distribution of housing is also important to ensure that a wide range of communities benefit from growth, and that development occurs in appropriate, attractive locations.

Options A1, A5 and B2 do not propose growth in the service centres, and therefore **minor negative effects** could occur here as it would not support a growth in population for these settlements. As higher-order settlements with good access to services and jobs, having no planned growth in these areas may not help to tackle local needs and market demands.

For option A4, and to a lesser extent options A2 and A3, there would be growth at the service centres. Therefore larger levels of growth around these service areas is likely to make a positive contribution to delivery and affordability, although in the more rural locations, there would be less opportunity to address affordability. There is likely to be sufficient land capacity to deliver all the options due to the level of growth being below the SLHAA capacity, however the higher levels of growth there could be particular needs for supporting infrastructure to make such growth deliverable. Due to these peripheral locations typically having higher house prices than areas within the surrounding larger settlements within Charnwood, growth here could help to impact affordability. Option A4 is predicted to have a **significant positive effect** on housing provision and at the slightly lower level of growth, option A2 and A3 could provide **moderate positive effects**.

The lowest level of growth would be through option A6 (750 dwellings), which once dispersed across all the service centres would not bring forward a significant number of homes to each area, therefore only **minor positive effects** could be realised.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B4 at the higher growth level proposes 4,579 dwellings at service centres. Option B2 and option B3 propose similar, but slightly lower levels of growth. Therefore, **significant positive effects** in terms of housing numbers for service centre, as a greater mix in housing types could be delivered on a range of sites.

Option B6 proposes a similar amount of growth as option A4, therefore, it could be predicted that **significant positive effects** could also be felt.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves a very limited amount of growth in the Service Centres, therefore **minor negative effects** could occur as it would not support a growth in population for these settlements. As higher-order settlements with good access to services and jobs, having no planned growth in these areas may not help to tackle local needs and market demands.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

There are a number of sites able to accommodate growth around Loughborough and Shepshed. The SHLAA capacity is 8,270, which none of the options for growth put forward, therefore there ought to be good flexibility in the choice of sites for allocation. This increased flexibility could help provide homes that meet the need of the community in specific locations, resulting in an adequate supply of housing and ensuring an appropriate mix of dwelling size, type and tenure. Sites within the current built up area could present opportunities to make better use of the current building stock.

Option A1 proposes the highest level of growth, which ought to be most positive with regards to the contribution to deliverability and affordability. This option should best help to meet the needs of the community in this location and therefore, **minor positive effects** are predicted.

Option A4 and to a lesser extent options A2 and A3 would deliver a moderate amount of additional housing to the current stock at Loughborough and Shepshed, contributing to additional affordable and specialist housing. This contributes to a **minor positive effect** in these locations.

Options A5 and to a lesser extent option A6, could also deliver additional housing, but due to the lower level of growth the effects would be less prominent.

## Population: Housing

Given the potential for some sites to only be deliverable in the longer term, the effects are predicted to be **uncertain positive effects**.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 would deliver the highest level of growth to Loughborough and Shepshed. To a lesser extent options 8, B4 and B6 propose around 7,000 new dwellings. Therefore, the extent of opportunities for mixed housing to the area is high, resulting in **significant positive effects** for Loughborough and Shepshed. The flexibility afforded by the wide range of sites available ought to ensure that opportunities for growth exist throughout the plan period.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves a very limited amount of growth at Loughborough / Shepshed; therefore **minor negative effects** could occur as it would not support a growth in population for these settlements. As the largest settlements in the borough with good access to services and jobs, having no planned growth in these areas may not help to tackle local needs and market demands.

## PUA:

### Scenario A (Discussion of options for delivering 8,100 homes)

Option A1, A2, A3, A5 and A6 (3,350 dwellings) all propose growth to the edge of Leicester. Given that there is a demand for housing in Leicester City, meeting needs on the periphery is likely to have benefits for communities in these locations, and also those looking to maintain a connection to the City. **Minor positive effects** are predicted.

Whilst option A4 proposes a lower level of growth of 1,067 dwellings. This option would not take the opportunity to help meet needs where they are arising (i.e. within close proximity to Leicester), and therefore, a **neutral effect** is predicted with regards to housing (this level of growth may be anticipated anyway given it represents a proportionate approach).

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2, B3 and B6 all propose the same level of growth at options A1, A2, A3, A5 and A6 discussed above, therefore **minor positive effects** are predicted.

Option B4 proposes to deliver 2,068 dwellings to the PUA. This level of growth ought to help to contribute towards meeting needs and tackling affordability. However, the effects are less certain compared to options B2, B3 and B6.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves a very limited amount of growth at the PUA; therefore **minor negative effects** could occur as it would not support housing delivery for communities in this area. Given the close proximity to Leicester City and the inability to meet needs in the City itself, this could be negative with regards to housing provision in an area of need.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 and A6 do not propose growth in the other settlements, and therefore effects are predicted to be negative here. There would be limited support for new housing in these locations beyond windfall development, and therefore it may be difficult to tackle rural affordability issues. These locations are also attractive for market development. **Minor negative effects** are predicted as the magnitude of effects are small.

Option A3 and to a lesser extent option A4 (which disperses growth further) ought to have minor positive effects by supporting a modest amount of growth in the other settlements. Therefore, **minor positive effects** are predicted for both options.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth in the 'other settlements' and so **minor negative effects** are predicted.

## Population: Housing

Options B3 and B4 propose a similar level of growth to other settlements as option A3 discussed above, therefore **minor positive effects** are predicted. For option A4, which proposes almost double the amount of growth to other settlements and smaller settlements combined, there ought to be a **significant positive effect** in terms of the provision of housing need in rural areas and supporting the viability of these communities.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves no growth in the 'other settlements' and so **minor negative effects** are predicted.

### **Small Villages and Hamlets**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 do not propose growth in the small villages and hamlets, and therefore effects are likely to be neutral or possibly negative should there be specific demand in such areas. There would be limited support for new housing in these locations beyond windfall development, and therefore it may be difficult to tackle rural affordability issues. **Uncertain minor negative effects** are predicted as the magnitude of effects is small and the suitability for housing in these locations is questionable given their lack of services and facilities.

Option A4 which disperses growth to include small villages and hamlets could have some benefits for a limited number of people. However, the benefits would be offset by the likelihood that housing in these locations would not deliver accessible homes that communities need. Overall, a localised **minor positive effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve no growth in the small villages and hamlets and therefore **uncertain minor negative effects** are predicted (as per options A1, A2, A3, A5, A6).

Option B4 proposes almost double the amount of growth to smaller settlements which ought to have **minor positive effects** with regards to allowing the market to deliver homes. However, the amount of housing would not be enough to support new facilities, and would therefore be unsustainably located. This offsets the positive effects somewhat.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets so an **uncertain minor negative effect** is predicted for C1.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3 and A4 do not propose growth in new settlements, and therefore effects are **neutral**. The effects are neutral as not developing new settlements would not directly lead to a decline in housing availability and affordability in existing settlements.

Options A5 and A6 both involve substantial housing provision through sites at new settlements and expansion to other settlements within the plan area. This could contribute to meeting the borough's housing needs, and could provide a mix of types of housing that could generate more affordable housing compared to other 'sub' market areas with well-established values. However, the delivery of growth may be affected by the reliance on infrastructure required to support this level of growth. **Minor positive effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not propose growth at new/expanded settlements, and therefore effects are **neutral**.

Option B6 proposes the same level of growth as options A5 and A6, therefore **minor positive effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves substantial housing provision through one large settlement. It is unknown where this would be, but the beneficial effects would be mostly restricted to the settlement and nearby communities. The housing delivered could contribute to meeting the borough's housing needs, and could provide a mix of types of housing that could generate more affordable housing compared to other 'sub' market areas with well-established values.

## Population: Housing

However, the delivery of growth may be affected by the reliance on infrastructure required to support this level of growth and provision would most likely not be delivered in full within the plan period.

The ability to achieve a 5 year housing supply may also be affected with over-reliance on one large site that would need to be appropriately phased. Consequently, the overall effects on housing are likely to be mixed.

**Minor negative effects** are recorded for the short term, with **minor positive effects** in the longer term.

### Overall effects

#### Scenario A (Discussion of options for delivering 8,100 homes)

Dependent upon the size, location and complexity of development of the sites involved, planning to deliver a housing target in-line with the OAHN may fall short of actually achieving this level of housing growth. Therefore, significant positive effects are not predicted to be likely for any of the options under Scenario A.

Option A1 proposes the majority of growth around the PUA and Loughborough/Shepshed. Whilst this could result in positive effects in these areas with regards to housing delivery, it would not help to meet needs in the service centres and rural locations. These negative effects could offset the benefits achieved in Loughborough and the PUA somewhat, and so the positive effects are **uncertain (and minor)**.

Option A2 would generate minor positive effects across a range of settlements, including Loughborough / Shepshed, the service centres and the PUA. By spreading development more widely across the borough, more communities would be likely to benefit and the range of sites would be increased. Therefore, despite potential negative effects in the 'other' and smaller settlements, a **minor positive effect** is predicted overall.

Option A3 disperses growth across a larger number of sites, which could present a greater opportunity to meet 'local needs' in a range of settlements, including those in the other settlements. This could help to deliver a mix of housing types in different locations, and help to increase the affordability of these areas by increasing the current housing stock. Whilst there could be some very localised minor negative effects related to the smaller villages and hamlets, a **minor positive effect** is predicted overall.

Option A4 proposes proportionate growth across according to the settlement hierarchy. This would lead to positive effects in the existing centres of population, helping to meet needs in a variety of locations (to different extents). However, this option would do less to meet needs in the PUA, which is a missed opportunity to help tackle affordability and housing availability in the wider City. Nevertheless, the overall effects across the borough are likely to be **minor positive**.

Option A5 proposes growth at the largest built-up urban areas around the edge of Leicester and Loughborough/Shepshed, along with significant growth at new settlements. This presents opportunities to grow the housing stock around these areas and ensure an appropriate mix of dwellings are delivered at new settlements. However, strategic infrastructure may need to be delivered at new settlements to allow housing to come forward at this scale over the plan period. The lack of growth in the service centres and other settlements could also be negative in respect of (not) helping to tackle housing needs in these areas. On balance, positive effects ought to be achieved across the district, but there is greater uncertainty associated with this option given the negative effects at some settlements and potential deliverability/phasing issues associated with large settlements. **Uncertain positive effects** are predicted.

Option A6 proposes similar growth to option 5 with additional growth at service centres rather than at Loughborough / Shepshed. The effects are therefore similar to option A5, but the potential for negative effects is reduced for the service centres. The overall effects are therefore predicted to be less uncertain for the borough as a whole, so **minor positive effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Growth at this higher level should provide greater flexibility in the choice of sites, which makes it more likely that the objectively assessed housing needs would be met over the plan period. The greater number and types of sites should also ensure that the needs of a variety of communities could be met. Consequently, options B2, B3, B4, B6 are all predicted to have **significant positive effects** overall.

However, the relative performance at different settlements differs slightly, with options B2, B3 and B6 potentially having negative implications for the lower order settlements.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 is predicated to have mixed effects on housing over the plan period.

## Population: Housing

There is little provision for the majority of existing settlements across the Borough, and so potential negative effects are recorded.

Whilst provision of new housing at a large scale new settlement is likely to have **minor positive effects** in the longer term, it is probable that the full housing needs would not be met in the plan period and a 5 year supply may be difficult to achieve. Consequently, **minor negative effects** are predicted also.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects		
<b>Scenario A – 8,100 homes</b>									
A1: Urban intensification	-	+	+	-	-?	0	+?		
A2: Urban focus	+	+	+	-	-?	0	+		
A3: Settlement Hierarchy	0	+	+	+	-?	0	+		
A4: Proportionate growth	+	+?	0	+	+	0	+		
A5: Urban intensification and new settlement	-	+?	+	-	-?	+	+?		
A6: Urban focus and new settlement	0	+?	+	-	-?	+	+		
<b>Scenario B – 15,700 homes</b>									
B2: Urban focus	++	++	+	-	-?	0	++		
B3: Settlement Hierarchy	++	++	+	+	-?	0	++		
B4: Proportionate growth	++	++	+?	++	+	0	++		
B6: Urban focus and new settlement	+	++	+	-	-?	+	++		
<b>Scenario C - Standalone new settlement</b>									
C1: Large scale new settlement	-	-	-	-	-?	+	-	+	-

## Local economy

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 do not propose growth in the service centres, and therefore effects are predicted to be **neutral**.

For option A4, and to a lesser extent options A2 and A3, there would be growth at the service centres, which would likely have a positive effect on the service centres local economies. An increase in homes would help to provide accommodation for workers. If housing is located in accessible locations, via the transport network, this could help support the expansion of economic/employment hubs. The larger service centres located along the Soar Valley provides a variety of industrial employment opportunities, including activities related to mineral extraction, textiles and engineering. There would also be job creation to construct homes in these service centres. Overall, a **minor positive effect** is predicted.

Option A6 (750 dwellings) delivers a lower level of growth, which is unlikely to have a significant effect at any of the service centres. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option B4 at the higher growth level proposes 4,579 dwellings at service centres. Option B2 and option B3 propose similar, but slightly lower levels of growth. Growth at this level would help to generate jobs for the construction of homes in these locations, whilst also placing new development in settlements with relatively good access to jobs in the larger centres of Leicester and Loughborough. An increase in housing should also help to support increased local spending. **Significant positive effects** are predicted.

Option B6 proposes a similar amount of growth as option A4; therefore, therefore **minor positive effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Options C1 proposes a very low level of growth across the service centres, and therefore effects are predicted to be **neutral** with regards to the local economies in these areas.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Loughborough is the Boroughs principle employment centre and over the years has diversified from a traditional textile and engineering base into pharmaceuticals, general manufacturing services, and warehousing and distribution. A key component of the service sector is research and development. This area offers strong new employment potential especially through the development of the Science Park off Ashby Road, which Charnwood Borough Council has identified as a key employment location, along with the enterprise park. A further boost to this sector has been the arrival of AstraZeneca at Loughborough Industrial Park, following their take-over of Fisons Pharmaceuticals. Both Loughborough University and Loughborough College of Further Education are both critically important to the local economy.

Shepshed has moved from a traditional reliance on manufacturing towards distribution firms and facilities. These are taking advantage of a location adjacent to Junction 23 of the M1. The town has strengthened economic links with Loughborough in recent years also.

Both locations should also be able to benefit from job opportunities at the East Midlands Gateway.

Option A1 (4,750) proposes the highest level of growth under scenario A. Growth here would link homes to job opportunities very well, and would help to support local services and facilities. Also, this level of growth may support opportunities to create/expand current employment hubs, allowing the continuation of employment rates around Loughborough and Shepshed and job diversification. New development could help to provide accommodation for the working age population due to the delivery of a diverse range of housing to the area. Therefore, for option A1 **significant positive effect** could be predicted.

Options A2 and A3 and to a lesser extend option A4 has the potential to direct development to some of the smaller more accessible sites within the built up urban areas, alongside some large sites on the edge of Loughborough and Shepshed. Therefore, there could be opportunities to link up new development with the existing employment centres, via public transport. Provision of homes in the periphery could help to tackle deprivation in the City itself, should it help to provide accommodation for such communities along with increased job diversification. **Minor positive effects** are predicted for this level of growth.

Option A6 (1,000) and to a lesser extent option A5 propose the least growth to sites located close to Loughborough and Shepshed.

## Local economy

Therefore, there would be fewer opportunities to support economic growth around Loughborough. However there would also be less competition for jobs in the area. It is less likely that positive effects would be generated, and therefore, **uncertain minor positive effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2 would deliver the highest level of growth to Loughborough and Shepshed. To a lesser extent, options B3, B4 and B6 propose around 7,000 new dwellings. Growth for all these options would provide substantial amounts of new housing in Loughborough and Shepshed, which would provide accommodation to support jobs growth in this area. This level of growth could also support infrastructure improvements and local spending. **Significant positive effects** are predicted.

At this level of growth however, there could be increased competition for jobs should there be increased migration into the area. The large scale level of growth could also put pressure on transport routes, which could have negative implications. **Uncertain minor negative effects** are predicted to reflect these issues.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Options C1 proposes a very low level of growth at Loughborough / Shepshed, and therefore effects are predicted to be **neutral** with regards to the local economies in these areas.

## PUA:

### Scenario A (Discussion of options for delivering 8,100 homes)

Option A1, A2, A3, A5 and A6 (3,350 dwellings) all propose growth to the edge of Leicester into the urban area of Thurmaston, Birstall and Syston. The delivery of homes to the Leicester urban periphery should provide homes that have good access to jobs in the city, and further afield should there be connections to the strategic road networks. However, access to a large proportion of these jobs outside of Leicester could rely on the private car, and so certain communities might not benefit. Provision of homes to the edge of Leicester could help tackle deprivation in the worst effected wards, should it help to provide accommodation and job opportunities to such communities. Housing provision close to the City and surrounding employment hubs (for example the Global Technologies Hub) could also help to improve graduate retention (access to higher quality jobs) and fill gaps in the market (leisure and creative industries), which is something that is currently lacking across the whole of Charnwood. Therefore, **significant positive effects** are predicted.

Option A4 proposes 1,067 new dwellings at the edge of Leicester. This level of growth could be accommodated on some of the smaller sites located around the urban areas of Thurmaston, Birstall and Syston. However, this level of growth may be expected to be absorbed by these settlement areas, without providing any significant economic boost. Therefore, **neutral effects** are predicted

### Scenario B (Discussion of options for delivering 15,700 homes)

Option B2, B3 and B6 all propose the same level of growth as options A1, A2, A3, A5 and A6 discussed above, therefore **Significant positive effects** are also predicted.

Option B4 proposes to deliver 2,068 dwellings to the PUA. This level of growth is lower than those discussed above, therefore **minor positive effects** are predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Options C1 proposes a very low level of growth across the PUA, and therefore effects are predicted to be **neutral** with regards to the local economies in these areas.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 and A6 involve no growth in the 'other settlements' and so **neutral effects** are predicted.

Options A3 and A4 involve a limited amount of growth at the other settlements, with option A4 also involving some growth at smaller villages and hamlets (but less at the other settlements compared to option A3). In general, the smaller towns and villages already struggle to provide local job opportunities for skilled workers. Therefore, growth in these locations would be likely to result in greater levels of commuting. Growth in the rural areas would also do little to address regeneration, as most of these locations are affluent. It would also draw investment away from more suitable locations for economic growth such as the Service Centres, PUA and Loughborough/Shepshed.

## Local economy

Given that the magnitude of growth here is low, only **minor negative effects** are predicted. Conversely, increased housing in these areas could help to support an increase in spending in the other settlements, which ought to be positive for local businesses in these areas. **Minor positive effects** are therefore predicted for A3 and A4.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 involve no growth in the 'other settlements' and so **neutral effects** are predicted.

Options B3 and B4 propose a similar level of growth to other settlements as option A3 discussed above, therefore both positive and negative effects are predicted (minor).

### Scenario C (Discussion of options for delivering a standalone large settlement)

Options C1 proposes a very low level of growth across the other settlements, and therefore effects are predicted to be **neutral** with regards to the local economies in these areas.

## Small Villages and Hamlets

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 do not propose growth in the small villages and hamlets, and therefore effects are likely to be **neutral** with regards to the economy.

Option A4 which disperses growth to include small villages and hamlets could have some benefits for a limited number of businesses that are located in these areas. However, the magnitude of effects would be very minor given that these settlements have no more than one local facility, and these are mostly not employment generating (i.e. community facilities and recreation / leisure). Presuming a fairly proportionate split between the settlements, it is not likely that there would be any notable effect in any particular settlement with regards to the economy. Furthermore, growth would draw housing away from areas with better access to jobs. This is negative, but the scale of effects is so low that they are considered to be neutral. Overall, a **neutral effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve no growth in the small villages and hamlets and therefore **neutral effects** are predicted (as per options A1, A2, A3, A5, A6).

Option B4 proposes almost double the amount of growth to smaller settlements, but even at this scale, it is unlikely to support new business opportunities, and there are limited existing opportunities to build upon. **Neutral effects** are therefore still predicted with regards to opportunities. At this scale of growth, a greater amount is drawn away from more accessible locations for jobs, which is a **minor negative effect**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets so **neutral effects** are predicted for C1.

## New / expanded settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, and option A4 do not propose growth at other settlements, and therefore effects are predicted to be **neutral**.

Option A5 and A6 (3,000 dwellings) would deliver a substantial amount of growth to new settlements. The location of these new settlements is varied. At Thurcaston and Barkby, there are close links to the City, whilst at Cotes and Wymeswold / Hoton, the sites are more detached from urban centres, but should provide access to jobs in Loughborough (though probably by car). Growth would support accommodation for workers, though not all locations are ideal in terms of access to jobs. Nevertheless, positive effects would be generated. The effects on existing settlements would be more limited, as growth would create new settlements / local centres in their own right. Therefore, the effects for existing communities would be limited.

Should strategic infrastructure and public transport links be improved as part of development at Thurcaston and Barkby settlements, this could potentially benefit deprived communities in the City by providing an increased

## Local economy

range of accommodation.

Overall, **minor positive effects** are predicted. Whilst the new settlements would provide accommodation for the working age population, the benefits for existing communities would be limited, and the location of some new settlements is not ideally related to jobs (without access to a car).

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 do not propose growth at new/expanded settlements, and therefore effects are **neutral**.

Option B6 proposes the same level of growth as options A5 and A6; therefore **minor positive effects** could also be predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 will contribute benefits to the economy with regards to the design and construction of a large new settlement. New homes would also support the local labour pool required for economic growth, which is beneficial to the local economy. At the scale of growth involved, it is likely a new district centre would be required, which would support a small number of local jobs. It is unknown whether employment land would be a part of a new settlement, but this would make sense if such a development is to support sustainable patterns of development. At this scale of growth, it may also be necessary to provide infrastructure improvements, which could (depending on location) help to improve transport links, and attract inward investment. Whilst positive effects are likely, it is unclear the extent to which these would be significant, and which areas would benefit most. Therefore, only **minor positive effects** are predicted at this stage.

### **Overall effects**

Option A1 focuses growth around the PUA and Loughborough / Shepshed, which are key areas of economic activity in the Borough. This should locate housing in areas with good access to employment and allow continued economic growth in key locations. The scale of growth at Loughborough and Shepshed could also help to strengthen links between these two areas. **Significant positive effects** are generated overall despite there being neutral effects in other areas of the Borough.

Option A2 would not generate significant negative effects at Loughborough, but would have some benefits here and also at the Service Centres. The positive effects at the PUA would also be significant. On balance, the effects generated across the Borough ought to be **significant positive effects**.

Option A3 is similar to option A2 in terms of growth around the PUA, Loughborough/Shepshed and service centres, but would include some growth around other settlements. Similar positive effects are predicted compared to option A2, but at the other settlements, there could be some minor benefits in terms of support for these economies. There could also be slight negatives due to increased commuting though. Overall, the effects are still predicted to be **significant**.

Option A4 proposes proportionate throughout Charnwood, but does not propose growth at new settlements. The opportunity to support economic growth in each location is more limited due to growth being more dispersed. This approach also does not make the most of the opportunities to provide housing at the PUA (which would support access to jobs in the City and could possibly help tackle deprivation). Therefore, **minor positive effects** are predicted overall.

Options A5 and A6 direct a substantial proportion of the total growth to new settlements, which reduces the potential for positive effects at Loughborough and the service centres. No significant positive effects are predicted in any particular settlement, or as a result of the total quantum of development. Consequently, a **minor positive effect** is predicted overall for both options.

Each of the options at the higher level of growth (Scenario B) would lead to a greater amount of housing in Loughborough / Shepshed and the Service Centres, which is more likely to support economic growth in these accessible locations. Increase growth overall is also likely to support an increase in construction jobs, increased local spending and contributions to infrastructure improvements. However, a higher level of growth could increase competition for local jobs if there is increased in-migration, and could also put pressure on transport networks, which are potentially negative effects at Loughborough for options B2, B3, B4 and B6.

Overall, Option B2 is predicted to have significant positive effects, reflecting the benefits that ought to be generated at the key employment locations of Loughborough, close to the PUA and at the Service Centres. Though there are some potentially minor negative effects at Loughborough/Shepshed, the overall effects should still be positive given the increased likelihood of new homes being built-out in the plan period.

## Local economy

Likewise, Option B3 is predicted to have **significant positive effects**, with the overall effects across the borough quite similar to Option B2.

Option B4 proposes proportionate growth, which means that opportunities at the PUA are less likely to generate significant effects. Instead, minor benefits would be generated at other settlements. However, a minor negative effect could also be generated as a result of growth in these areas. Overall, a **significant positive effect** is still predicted, as there would still be substantial growth at Loughborough / Shepshed and the Service Centres. However, a **minor negative effect** is also predicted to account for those recorded at the other settlements and potentially at Loughborough / Shepshed.

Option B6 is similar to option B2, although slightly less growth is directed to Loughborough and Shepshed along with service centres, and instead is distributed to new settlements. Whilst this reduces the significance of the positive effects at the service centres, it generates positive effects at the new settlements, which could also benefit areas that they are related to such as the PUA (Thurcaston, Birstall, Syston). Consequently, a **significant positive effect** is still predicted overall.

Option C1 is predicted to have a minor positive effect overall. This relates entirely to the benefits that a large scale new settlement could have in terms of job creation for construction, the delivery of new facilities and services, and potential improvements to infrastructure. Direct benefits to existing settlements would likely be limited (with the exception of jobs creation during construction), and it is uncertain whether employment land would be involved as part of a new settlement. Consequently, there are considerable uncertainties associated with this approach at this stage.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	++	++	0	0	0	++
A2: Urban focus	+	+	++	0	0	0	++
A3: Settlement Hierarchy	+	+	++	+	-	0	++
A4: Proportionate growth	+	+	0	+	-	0	+
A5: Urban intensification and new settlement	0	+?	++	0	0	+	+
A6: Urban focus and new settlement	0	+?	++	0	0	+	+
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	++	++	-?	++	0	0	++
B3: Settlement Hierarchy	++	++	-?	++	0	0	++
B4: Proportionate growth	++	++	-?	+	+	-	++ -
B6: Urban focus and new settlement	+	++	-?	++	0	0	++
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	+?	+?

## Accessibility

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1 and A5 involve no growth at the service centres, and so the effects in terms of traffic would be neutral. However, there would be fewer opportunities to support improvements to existing facilities, and a missed opportunity to locate development in accessible locations. A **neutral effect** is predicted.

Option A6 distributes a relatively small amount of growth to the service centres, which is unlikely to create significant amounts of traffic. The new homes are likely to have good access to services and facilities though and could help to support small improvements to community infrastructure. At this level of growth, the critical mass required to support new health and education facilities may not be generated, so effects on such services would be less likely to be positive. On balance, **neutral effects** are predicted.

Option A3 distributes double the amount of growth towards the service centres compared to option A6. At this level of growth, there would be increased pressure on existing services and facilities. However, higher levels of development contributions could also better help to support new facilities for new and existing communities. On balance a **minor positive effect** is predicted.

Options A2 and A4 (to a greater extent) would involve the greatest amount of growth at the service centres. This would ensure that a substantial proportion of new development is located in accessible settlements. There should also be better opportunities to secure improvements to community infrastructure, and to support new or expanded health and education facilities. A **minor positive effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 all involve substantially more growth in the Service Centres compared to the options under scenario A. This could lead to increased pressure in terms of traffic and congestion. However, access to services ought to be relatively good for new development (though the necessity for a higher level of growth could mean that the more distant sites at the urban fringes may be developed).

Growth at this level could provide the critical mass for new local facilities, particularly at larger sites. This should have benefits for existing and new communities and generate **significant positive effects**. The likelihood of this occurring is uncertain though as it would depend upon the distribution of development between the Service Centres and site locations.

Option B4 would involve similar growth to options A2 and A4, and therefore **minor positive effects** are predicted.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves limited growth at the service centres, and so the effects in terms of traffic would be neutral. However, there would be fewer opportunities to support improvements to existing facilities, and a missed opportunity to locate development in accessible locations. A **neutral effect** is predicted.

### Loughborough / Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

Both Loughborough and Shepshed possess a wide range of local facilities and services, including good public transport links. Access to jobs would also be good given the opportunities in Loughborough itself and links to Leicester and Derby via train. Development in the urban area would therefore have excellent accessibility. Growth at the urban fringes would be less well connected with regards to existing local services, but would be likely to have good public transport access. The scale of some sites at the urban fringe could also be more likely to support on-site facilities that could benefit new and existing communities.

For option A1, which involves the greatest amount of growth under this scenario, **minor positive effects** are predicted. This reflects the benefits of growth in the urban centre, and some growth at the urban fringes. The effects are not predicted to be significant, as it is uncertain which sites would be involved and whether the critical mass would be created for new facilities in certain locations.

Options A2 and A4 involve lower levels of growth, but would still place development in accessible locations. The requirement for development at the urban fringe would be lower, and so new facilities may be less necessary. Overall, **minor positive effects** are predicted.

## Accessibility

Options A3 and A5 involve lower levels of growth still, and could mostly be accommodated in the urban area. **Minor positive effects** are predicted.

Option A6 involves the lowest level of growth and is therefore unlikely to have notable effects on accessibility. **Neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

All four options involve substantial growth at Loughborough / Shepshed. Each would require the release of urban fringe sites, with option B2 perhaps requiring all available sites. This level of growth ought to support new facilities, which should benefit new and existing communities. However, it is uncertain at this stage where these would be and the extent of positive effects. Increased growth at the urban fringes would also be more likely to support enhancements / expansions to public transport routes, which would help these areas access the town centres better. However, the scale of growth could also impact upon traffic and congestion, which could offset some of these positives. Overall, **minor positive effects** are predicted. Whilst there is potential for significant positive effects, it is uncertain at this stage if or where they would be generated.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves limited growth at Loughborough, and so the effects in terms of localised traffic would be neutral. However, there would be fewer opportunities to support improvements to existing facilities, and a missed opportunity to locate development in accessible locations. A **neutral effect** is predicted.

## PUA:

### Scenario A1 (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 all involve the same level of growth at the PUA, which it is assumed would be distributed across areas such as Syston, Birstall and Thurmaston. These areas have broadly good access to services and facilities with a GP in Syston and two GPs in both Birstall and Thurmaston. There are also multiple primary schools in the area and three secondary schools. Public transport access is reasonable, with links to the City helping to reduce the distance needed to access jobs and a wide range of cultural and recreational facilities. Though this level of growth could impact upon traffic, new and existing residents should still benefit from good accessibility; with potential improvements being achieved through developer contributions. Consequently, a **minor positive effect** is predicted.

Option A4 would involve a smaller amount of development, and so whilst new development would still be well located, the opportunity to enhance facilities would be lower. Therefore, an **uncertain minor positive effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 would have significant positive effects, as the level of growth is the same as for options, A1, A2, A3, A5 and A6.

Option B4 would involve a smaller amount of development, and so whilst new development would still be well located, the opportunity to enhance facilities would be lower. Therefore, only a **minor positive effect** is predicted.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves limited growth at the service centres, and so the effects in terms of traffic would be neutral. However, there would be fewer opportunities to support improvements to existing facilities, and a missed opportunity to locate development in broadly accessible locations. A **neutral effect** is predicted.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A5 and A6 do not involve any growth at the smaller settlements, which is a **neutral effect** in terms of accessibility in these areas. However, a lack of growth in these areas would not help to support improvements to rural accessibility (which might otherwise benefit from developer contributions).

Options A3 and A4 involve growth at other settlements and hamlets (option A4 only).

## Accessibility

Many of these settlements do not have as wide a range of local facilities, and therefore, accessibility is likely to be poorer for residents in these communities. The amount of development involved is unlikely to create a critical mass to support new facilities, but may have some minor beneficial effects on community infrastructure. Overall, a **minor negative effect** is predicted for both scenarios.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B1 and B4 do not involve growth at the other settlements and so **neutral effects** are predicted. Option B2 involves similar growth to options A3 and A4 and thus a **minor negative effect** is predicted. Option B3 involves slightly higher growth than all other options at the other settlements, and so more development would be located in areas with poorer accessibility. However, the higher level of growth could better support new facilities in rural areas (though not to the extent that new facilities would be created). This offsets the negative effects somewhat, and so a **minor negative effect** is still predicted overall.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves limited growth at the smaller settlements, which is a **neutral effect** in terms of accessibility in these areas. However, a lack of growth in these areas would not help to support improvements to rural accessibility (which might otherwise benefit from developer contributions).

## Small Villages and Hamlets

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 do not propose growth in the small villages and hamlets, and therefore effects are likely to be **neutral** with regards to accessibility.

Option A4 involves a small amount of growth at small villages and hamlets. These settlements all have poor access to a wide range of local facilities, and therefore, accessibility is likely to be much poorer for residents in these communities. The amount of development involved would not create a critical mass to support new facilities, and is unlikely to have any positive effect. With regards to travel, car trips are more likely to be generated given the inability to walk to local services, and the poorer public transport links. Whilst this is negative, it is unlikely to be significant with regards to traffic and congestion given the dispersed nature of development. Overall **neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve no growth in the small villages and hamlets and therefore **neutral effects** are predicted (as per options A1, A2, A3, A5, A6).

Option B4 proposes almost double the amount of growth to smaller settlements compared to A4, but even at this scale, it is unlikely to support new facilities. At this scale of growth, a greater amount of housing is drawn away from more accessible locations for facilities and jobs, which is recorded as a **minor negative effect**.

### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the small villages and hamlets so **neutral effects** are predicted for C1.

## New / expanded settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1-A4 do not involve growth at new settlements, and so **neutral effects** are predicted.

Options A5 and A6 both involve growth at new settlements. These areas currently have poor or no access to services and facilities. Therefore, unless the new settlements generate the critical mass to support new schools and health facilities, these communities will need to travel to access basic services. Access to cultural and community facilities in these locations would also be dependent upon developer contributions.

The level of growth involved ought to support new primary facilities, but it is unlikely new secondary schools would be supported. Likewise, satellite health facilities could be supported, but the likelihood of large new health facilities would be uncertain.

Access to public transport would also be dependent on new or amended services being secured. Given the potential for a large amount of growth to be located in areas of relatively poor accessibility, and the uncertainty of new facilities being secured, an **uncertain negative effect** is predicted at this stage.

## Accessibility

### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B4 are predicted to have **neutral effects** as they involve no growth at new settlements.

Option B6 is predicted to have an **uncertain negative effect**, as it involves the same level of growth as options A5 and A6 above.

### Scenario C (Discussion of options for delivering a standalone large settlement)

Option C1 involves substantial growth at a large new settlement. Though the precise location is unknown, the opportunity areas broadly will have poor or no access to services and facilities. Therefore, unless the new settlements generate the critical mass to support new schools and health facilities, these communities will need to travel to access basic services. Access to cultural and community facilities in these locations would also be dependent upon developer contributions.

The level of growth involved ought to support new primary facilities and a new secondary school, which would benefit the new communities. The potential for new health facilities would also be higher than for a series of smaller new settlements (as per A5 / A6 / B6). This ought to reduce the need to travel to reach such facilities.

Access to public transport would also be dependent on new or amended services being secured. At the scale of growth involved it is likely that services would be viable, though this may be more difficult in a more isolated location.

Overall, accessibility to local basic services, a district centre, public transport and recreation ought to be good. However, it is likely that car travel would be increased, especially if a new settlement is located in the open countryside. For this reasons, a minor positive effect is predicted (rather than significant positive effects).

### **Overall effects**

Option A1 is predicted to have a **minor positive effect** overall. Development would be focused on the most accessible locations, and would not be likely to create negative effects in any areas.

Option A2 is predicted to have minor positive effects overall. There would be positive effects in the Service Centres, Loughborough / Shepshed and the PUA, but none are predicted to be significant.

Option A3 is predicted to have minor positive effects overall. Though accessibility of some new development would be poor, the effects ought to be offset by the positive effects generated across other areas within the Borough.

Option A4 is predicted to have a minor positive effect, though it would be less likely to generate benefits at the PUA compared to all other options.

Option A5 would generate positive effects in the main, as large amounts of growth are directed to Loughborough and the PUA. However, there are potential negative effects at new settlements which could offset these positive effects somewhat. Therefore, an **uncertain minor positive effect** is predicted overall.

Option A6 is predicted to have **neutral effects**. Though much of the development would be located in areas with fairly good accessibility, it would be at a level that does not generate benefits in terms of new community facilities and infrastructure. Though positive effects are identified at the PUA, there are potential negatives associated with new settlements.

Options B2 and B3 are predicted to have **significant positive effects** overall. Growth would be located in areas with good accessibility, and at the higher levels of growth involved, this could create a critical mass to support new onsite facilities in some areas which would benefit new and existing services. In the service centres this is predicted to be significantly positive, but not at Loughborough, where new development at the urban fringe could still be quite distant to the town centre despite local facilities potentially being created. Though the increased level of growth overall could increase traffic and congestion, accessibility to services should still remain good.

Option B4 is predicted to have a **minor positive effect** overall. The benefits generated across the Borough would be mostly minor positives, though growth at other settlements would offset this somewhat.

Option B6 is predicted to have a **significant positive effect** overall. This is related to the positive effects that would be generated across the Borough at the service centres, Loughborough / Shepshed and the PUA. Though there are uncertain negative effects at the new settlements, these do not outweigh the cumulative positive effects that should be generated in accessible locations.

## Accessibility

Option C1 is predicted to have a mostly neutral effect with regards to accessibility for most of the borough as there is little growth in existing settlements.

Whilst accessibility at a new settlement ought to be good for new communities, there may still be a reliance on car travel to access jobs and retail. Overall, **neutral effects** are predicted as the overall effect on the Borough's patterns of travel would be minimal.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A – 8,100 homes</b>							
A1: Urban intensification	0	+	+	0	0	0	+
A2: Urban focus	+	+	+	0	0	0	+
A3: Settlement Hierarchy	+	+	+	-	0	0	+
A4: Proportionate growth	+	+	+ <sup>?</sup>	-	0	0	+
A5: Urban intensification and new settlement	0	+	+	0	0	- <sup>?</sup>	+ <sup>?</sup>
A6: Urban focus and new settlement	0	0	+	0	0	- <sup>?</sup>	0
<b>Scenario B – 15,700 homes</b>							
B2: Urban focus	++	+	+	0	0	0	++
B3: Settlement Hierarchy	++	+	+	0	0	0	++
B4: Proportionate growth	+	+	+	-	-	0	+
B6: Urban focus and new settlement	++	+	+	0	0	- <sup>?</sup>	++
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	+	0

## Minerals

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

The potential for mineral resources to be sterilised by development varies at each of the service centres, as outlined below.

*Anstey* – A total of 5ha of development land falls within an igneous rock safeguarded area. It is likely this could be avoided under each spatial option due to the flexibility in site choice.

*Barrow upon Soar* – A total of 25ha of gypsum rock, 17ha of sand and gravel, and 2.6 ha of igneous rock overlaps with development site options. However, not all of these site options would be required under any of the spatial options. It ought to be possible to avoid loss for option A6 (the lowest level of growth). However, a loss of 4 ha of sand and gravel and/or Gypsum could occur for option A3. For option A4, a loss of 9ha could occur, with up to 7ha for option A2.

*Quorn* – Small areas of sand and gravel (less than 2 ha) and Gypsum (less than 2ha) could be affected by development. However, it is unlikely that minerals extraction would be feasible on the sites involved, and the loss would be very small for any of the spatial options.

*Sileby* – There are a range of site options overlapping with minerals safeguarding zones. Approximately 13ha fall within Gypsum safeguarded areas, 33ha within sand and gravel, and 2 ha of igneous rock. However, not all of these site options would be required under any of the spatial options. There are also site options not falling into minerals safeguarded areas. At lower levels of growth (option A6) it is possible that sites in the urban area could accommodate development needs. For flexibility, greenfield sites may be required though, so potentially 3ha of land could be lost. At double the amount of growth (option A3) the potential for a 67ha overlap could occur. Option A4 could lead to a loss of 12 ha, whilst option A2 could lead to a loss of up to 10ha.

*Rothley* - There are a range of site options overlapping with minerals safeguarding zones. Approximately 36ha fall within safeguarded areas for sand and gravel and 3ha fall within igneous rock areas. However, not all of these site options would be required under any of the spatial options. For option A6, approximately 5 ha could be affected, with up to 14ha for the highest growth under option A4. Option A3 could affect approximately 10ha, and option A2 up to 8ha.

*Mountsorrel* – No minerals safeguarded areas would be affected.

As there is no growth proposed at the service centres for options A1 and A5, a **neutral effect** is predicted for both.

Option A6 would have the lowest amount of growth (for the options involving some growth) and would overlap with less resources (up to 8 ha of sand and gravel). This is considered to be a **neutral effect** due to the low magnitude of the effects.

Option A3 could overlap with more areas of minerals safeguarding compared to A6 (almost double), which would increase the potential for sterilisation. A total of up to 21ha (mainly sand and gravel) could potentially be lost. However, it ought to be possible to avoid safeguarded areas easier than for options A2 and A4. Therefore, a **neutral effect** is predicted for option A3.

Option A2 would overlap with even more areas of minerals safeguarding than option A3, with up to 25ha potentially being affected (mostly sand and gravel). This is predicted to be **neutral effect**, given the extent of resources that would remain throughout the borough.

Option A4 is likely to have the most prominent effects, as it involves the greatest amount of growth at the service centres. Though minerals safeguarded zones would be avoided at some settlements, there could be sterilisation of resources at others. Sand and Gravel is likely to be most affected, with a total of approximately 35 ha potentially affected. This is predicted to be **neutral effect**, given the extent of resources that would remain throughout the borough.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3, B4 and B6 would all involve greater levels of growth in the service centres than the corresponding options Under scenario A.

For option B2, there would be double the growth compared to option A2. This would require greater release of land at each service centre. The implications of this would be up to an additional 30ha of overlap with safeguarded minerals (60ha in total). This is an **uncertain negative effect**, as it may still be possible to avoid some areas, and viable working of minerals might not be possible anyway.

Options B3 and B4 would involve further growth still, with potential overall overlap with minerals safeguarded areas of 70ha in total For B4. **Minor negative effects** are predicted, as the flexibility in site choice would reduce further. Option B6 would involve similar levels of growth to option A4, and thus the same **neutral effects** are

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predicted (35ha overlap).

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the service centres with regards to minerals. At the scale of growth involved, it would be possible (and very likely) to avoid overlap with minerals safeguarded areas.

### **Loughborough / Shepshed**

#### Scenario A (Discussion of options for delivering 8,100 homes)

To the south east of Loughborough, several site options fall within sand and gravel minerals safeguarding areas (with a total of approximately 90ha involved). Development here could therefore potentially sterilise these resources. Similarly, development in Shepshed could potentially involve the loss of sand and gravel resources, with approximately 80ha of potential development land falling within safeguarded zones. There are also site options within Shepshed overlapping with clay resources (20 ha) and igneous rock (10 ha).

It is more likely that negative effects would occur for option A1, where the flexibility in site choice would be lower. For this growth option, it is possible that approximately 104ha of sand and gravel resources could be affected, as well as clay resources and igneous rock. This is predicted to be a **minor negative effect**. The effects are not considered to be significant, as a substantial area of (sand and gravel resources would remain and the loss of clay and igneous rock would be low. The location of development sites close to the urban fringe may also not be suitable for minerals extraction anyway.

Option A4 involves the next highest level of growth, with the potential of up to 65ha being affected. This is predicted to be an **uncertain negative effect**, as it ought to be easier to avoid safeguarded areas compared to option A1.

For options A2, A3, and A5, the overlap with minerals safeguarded zones would be much lower, with approximately 43ha of sand and gravel potentially affected for option A2, up to 22ha for option A3 and 6ha for option A5. Clay and igneous rock would be less likely to be affected too. A **neutral effect** is predicted for options A2, A3 and A5.

For option A6, the potential overlap with minerals zones would be lowest of any option, and could potentially be avoided altogether, thus a **neutral effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B3, B4 and B6 require double the amount of growth compared to option A4. At this level of growth a further 115ha of land could potentially be affected, due to the need to utilise a greater number of sites overlapping with minerals areas. This could be total of approximately 180ha, which is a **minor negative effect**. The level of growth would be higher still for Option B2 and would therefore be likely to include the majority of areas of minerals safeguarding in the area (192ha). This is a **minor negative effect**.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for Loughborough / Shepshed with regards to minerals. At the scale of growth involved, it would be possible (and very likely) to avoid overlap with minerals safeguarded areas.

## PUA

#### Scenario A (Discussion of options for delivering 8,100 homes)

The majority of site options at the PUA (Thurmaston, Thurstaston and Birstall) are either within the built up urban area, or do not fall within minerals safeguarding zones. Therefore, effects due to development in this location and negligible for options A1-A6.

However, there would also be growth in Syston as part of the PUA (approximately 1550 homes) which could potentially overlap with 56ha of minerals safeguarded areas for options A1, A2, A3, A5 and A6. Though this is possible negative, it is considered a **neutral effect** in the context of the minerals resources across the borough and the likelihood of these locations being suitable for workings.

For option A4, it should be possible to avoid all minerals safeguarded areas.

#### Scenario B (Discussion of options for delivering 15,700 homes)

The higher growth options B2, B3 and B6 involve the same level of housing at the PUA as A1, A2, A3, A5 and A6. The effects are therefore the same. Option B4 involves approximately double the amount of growth

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compared to option A4 (both being proportionate growth options). At this level of growth a **neutral effect** is still predicted, as it ought to be possible to avoid minerals safeguarded zones in the main.

### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for the PUA with regards to minerals. At the scale of growth involved, it would be possible (and very likely) to avoid overlap with minerals safeguarded areas.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Development at some of the 'other settlements' could potentially overlap with minerals safeguarding zones, whilst at others, effects would be neutral. For example, there would be no overlap at Hathern, Wymeswold or East Goscote. In other areas, there would be an overlap with areas of sand and gravel resources (Queniborough, Rearsby and Barkby for example), but the total potential loss of resources would be minor (less than 20ha in total). With regards to other minerals, site options surrounding Burton upon the Wolds overlap with Gypsum safeguarded areas. However, there are sufficient alternative sites to deliver proposed levels of growth. Overall, a **neutral effect** is predicted for option A3. For option A4, the effects at the other settlements would be lower, but there could be some overlap with minerals safeguarded zones at smaller settlements such as Newton Linfield (Igneous Rock), Seagrave (Gypsum). The effects would be negligible though as the scale of growth is very low (up to 20ha).

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2 and B6 do not involve any growth, and so neutral effects are predicted. Option B3 involves slightly lower levels of growth compared to option A3 (both options being driven by the settlement hierarchy). This would perhaps lead to a slightly lower magnitude of effect (5ha less). A **neutral effect** is still predicted. For option B4, the amount of growth in the other settlements and hamlets would be double that of option A4 (both options being proportionate approaches). This would lead to a greater potential for effects, with perhaps up to 40ha of minerals safeguarded areas overlapped. The magnitude of effects is still low so a **neutral effect** is predicted for option B4 also.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

**Neutral effects** are predicted for other settlements with regards to minerals. At the scale of growth involved, it would be possible (and very likely) to avoid overlap with minerals safeguarded areas.

### **Small Villages and Hamlets**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options A1, A2, A3, A5 and A6 do not propose growth in the small villages and hamlets, and therefore effects are likely to be **neutral** with regards to the economy.

Option A4 which disperses growth to include small villages and hamlets could involve growth in areas that overlap with minerals safeguarded areas (Gypsum, Igneous rock, sand and gravel), but this would be a very small amount (under 7ha) and unlikely to be appropriate to undertake minerals extraction immediately adjacent to small settlements. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options B2, B3 and B6 involve no growth in the small villages and hamlets and therefore **neutral effects** are predicted (as per options A1, A2, A3, A5, A6).

Option B4 proposes almost double the amount of growth to smaller settlements compared to A4, but even at this scale, it is unlikely that more than 15ha of land would be overlapped. Therefore, **neutral effects** are still predicted at a higher scale of growth.

#### Scenario C (Discussion of options for delivering a standalone large settlement)

This option does not involve growth at the hamlets so **neutral effects** are predicted for C1.

## Minerals

### New / expanded settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

The new settlement at Barkby is partly overlapped by sand and minerals safeguarded zone, but this part of the site would likely be unsuitable for feasible minerals workings. Therefore, effects are likely to be neutral.

The new settlement at Wymeswold / Hoton falls within approximately 35ha of Gypsum minerals safeguarded area. However, much of this falls below built up area (former airfield), and is therefore unlikely to be a suitable site for minerals extraction. Therefore, effects are likely to be neutral.

The new settlement at Cotes overlaps with approximately 110 ha of sand and gravel mineral safeguarded zone.

The new settlement at Thurstaston does not overlap with any minerals safeguarded zones. Therefore, effects are neutral.

Options A5 and A6 could lead to the potential sterilisation of up to 110ha of sand and gravel resources. This is considered to be a **minor negative effect** in the context of total mineral resources. There is also uncertainty whether the minerals here would be workable in any case.

#### Scenario B (Discussion of options for delivering 15,700 homes)

The only option involving growth at a new settlement is option B6. This is at the same scale as for options A5 and A6, which also involve a new settlement. Therefore the effects are the same (a **minor negative effect**).

#### Scenario C (Discussion of options for delivering a standalone large settlement)

A large new settlement could involve overlap with 290 – 360ha of Clay Minerals Safeguarding Area to the east of the borough in the open countryside. Resources may be suitable for extraction, and so sterilisation would be likely if growth occurred here. This would constitute a minor negative effect on a borough scale. However, should the settlement be located to the north east of the PUA, there would be neutral effects as there would be limited overlap with mineral resources in this area. Should a large scale settlement be brought forward to the West of Shepshed, there would be probable overlap with up to 75ha of sand and gravel Minerals Safeguarded areas too. Whilst the extent of effects would be lower compared to a settlement located to the west of the Borough, there would still be potential for minor negative effects. Consequently, an **uncertain negative effect** is predicted at this stage, reflecting the possible overlap with mineral resources in two of the three broad locations that a new settlement could be located within.

### Overall effects

Each of the options could lead to the sterilisation of mineral resources due to housing development. This would mostly be sand and gravel resources, which form the largest mineral resource that overlap with site options within the Borough. The loss involved at individual settlements would be unlikely to be significant in the main, as the magnitude of effects would be low, and the potential for resource extraction may also be low. In combination, the potential sterilisation of minerals across the borough amounts to more prominent effects for some options though (as discussed below).

Option A1 could lead to the sterilisation of up to 160 ha of mineral resources. The majority would be at Shepshed and Loughborough and Syston and would be likely to be sand and gravel resources (though there could also be igneous rock and clay resources affected at Shepshed). However, the nature of some sites involved could mean that mineral extraction was not feasible anyway. Therefore, any 'real' loss of workable minerals would be likely to be lower than 160ha. With this in mind, and in the context of the total resources present across the district, the negative effects are not predicted to be significant overall.

Option A2 could lead to the sterilisation of up to 124 ha of mineral resources, with the majority likely to be sand and gravel. This would consist of land at Shepshed, Loughborough, Syston and several service centres. However, the nature of some smaller sites involved could mean that mineral extraction was not feasible anyway. Therefore, any 'real' loss of workable minerals would be likely to be lower than 124 ha. With this in mind, and in the context of the total resources present across the district, the negative effects are not predicted to be significant overall.

For option A3 a total of up to 119ha of mineral resources could be affected, spread across Syston, Loughborough / Shepshed and other settlements. The majority of resources affected would be sand and gravel and much smaller amounts of Gypsum and Igneous rock. The likelihood of all these areas being workable for minerals extraction is low though, so the net 'loss' of resources is likely to be insignificant. Overall, this constitutes an uncertain (minor) negative effect.

For option A4 a total of up to 120ha of mineral resources could be affected, spread across Syston, Loughborough / Shepshed, other settlements and small villages and hamlets. The majority of resources affected would be sand

## Minerals

and gravel and much smaller amounts of Gypsum and Igneous rock. The likelihood of all these areas being workable for minerals extraction is low though, so the net 'loss' of resources is likely to be insignificant. Overall, this constitutes an uncertain (minor) negative effect.

For options A5 and A6, the potential loss of mineral resources would be greatest at new settlements (Cotes). In combination with potential effects at Loughborough and Syston, option A5 could overlap with 172ha of mineral safeguarded areas, whilst option A6, which involves more growth in the service centres and less in Loughborough, could involve up to 174ha. These two options perform the least well in terms of minerals protection. However, the effects are still not considered to be significant in the context of overall resources, and the likely feasibility of working some of these sites.

Option B2 would involve a total loss of mineral resources of up to 308 ha. The majority would be at Loughborough / Shepshed, with a range of different minerals potentially affected.

Option B3 would involve a potential loss of mineral resources of up to 321 ha and option B4 - 290ha with the majority being overlapped in Loughborough and the service centres for both.

Whilst the effects of options B2, B3 and B4 would undoubtedly be more negative than options under scenario A, the effects are still not predicted to be significant, given the total amount of mineral resources available.

Option B6 would involve the potential loss of minerals resources of up to 346ha with large overlaps in Loughborough / Shepshed and at new settlements. Given the increased magnitude of effects, and the inability to avoid minerals safeguarded areas in Loughborough / Shepshed, this is considered to be a **minor negative effect**.

Option C1 would in all likelihood involve a limited overlap with minerals safeguarded areas at the Service Centres, Loughborough / Shepshed, the PUA and other settlements.

It ought to be possible to avoid sterilisation in these areas.

However, depending upon location, a large new settlement could involve overlap with 290 – 360ha of Clay Minerals Safeguarding Area. The location of these resources (to the east of the borough) may also be suitable for extraction, and so sterilisation would be likely if growth occurred here. This would constitute a minor negative effect on a borough scale. However, should the settlement be located to the north east of the PUA, there would be neutral effects. Consequently, an **uncertain negative effect** is predicted at this stage.

	Service centres	Loughborough	PUA	Others	Hamlets	New settlements	Overall effects
<b>Scenario A - 8100</b>							
A1: Urban intensification	0	-	0	0	0	0	-
A2: Urban focus	0	0	0	0	0	0	-
A3: Settlement Hierarchy	0	0	0	0	0	0	-
A4: Proportionate growth	0	-?	0	0	0	0	-
A5: Urban intensification and new settlement	0	0	0	0	0	-	-
A6: Urban focus and new settlement	0	0	0	0	0	-	-
<b>Scenario B – 15,700</b>							
B2: Urban focus	-?	-	0	0	0	0	-
B3: Settlement Hierarchy	-	-	0	0	0	0	-
B4: Proportionate growth	-	-	0	0	0	0	-
B6: Urban focus and new settlement	0	-	0	0	0	-	-
<b>Scenario C - Standalone new settlement</b>							
C1: Large scale new settlement	0	0	0	0	0	-?	-?

	Landscape character	Biodiversity	Water quality	Flood Risk	Soil resources	Air quality	Climate change	Historic Environment	Deprivation	Healthy lifestyles	Housing	Local Economy	Accessibility	Minerals
<b>Scenario A – 8,100 homes</b>														
Option A1	-	-	-	-	-	-	++	-	++	+	+ <sup>?</sup>	++	+	-
Option A2	-	-	-	0	-	-	+	-	+	+	+	++	+	-
Option A3	- <sup>?</sup>	-	-	0	-	- <sup>?</sup>	0	- <sup>?</sup>	+	0	+	++	+	-
Option A4	--	- <sup>?</sup>	-	0	-	- <sup>?</sup>	-	-	+ <sup>?</sup>	0	+	+	+	-
Option A5	-	- <sup>?</sup>	0	0	-	-	- <sup>?</sup>	- <sup>?</sup>	+	+	+ <sup>?</sup>	+	+ <sup>?</sup>	-
Option A6	-	- <sup>?</sup>	0	0	-	-	- <sup>?</sup>	- <sup>?</sup>	+	+	+	+	0	-
<b>Scenario B – 15,700 homes</b>														
Option B2	--	--	-	-	-	-	+	--	++	+	++	++	++	-
Option B3	--	--	-	-	-	-	+	--	++	+	++	++	++	-
Option B4	--	--	-	-	-	-	-	--	+	+ <sup>?</sup>	++	++	-	+
Option B6	--	--	-	-	-	-	- <sup>?</sup>	--	++	++	++	++	++	-
<b>Scenario C – Standalone settlement</b>														
Option C1	-	0 <sup>?</sup>	?	0	-	-- <sup>?</sup>	- <sup>?</sup>	- <sup>?</sup>	0	+	+	-	+	0

## APPENDIX C: BREAKDOWN OF REFINED HOUSING OPTIONS

As discussed in Section 5 of the interim SA Report, the Council established seven refined options for the development strategy. Each of these was tested in the SA.

These options are summarised in the table below, followed by a more detailed breakdown of the distribution of homes across the borough for each option.

Option	Leicester urban area	Loughborough	Shepshed	Service Centres	Others	COTES	Overall
Option 1	3000	4000	500	600	0	0	8,100
Option 2	3000	800	2,200	2100	0	0	8,100
Option 3	1000	2000	1200	1600	1400	0	8,100
Option 4	2500	2000	1500	1100	0	1000	8,100
HYBRID	2000	2000	2000	1000	800	0	7,800
Option 5	3300	5150	2650	4600	0	0	15,700
Option 6	3300	4600	2500	3100	2200	0	15,700
Option 7	3900	3300	2600	4400	0	1500	15,700

### Option 1 – Urban Concentration A (Low Growth Scenario)

Settlement	Dwellings	Notable sites and assumptions
Leicester Urban Area ( <i>Birstall, Thurmaston and Syston</i> )	3,000	Majority of available sites (total 3,346) including one large site at Syston (1,200 homes, south of Syston)
Loughborough	4,000	Mix of sites includes at least one large site (3,000 south west of Loughborough)
Shepshed	500	Large and medium sites west of Shepshed and mix of small and medium sized sites in and around the town.
Anstey	100	A mix of small and medium sized sites, total of 600 homes at the Service Centres.
Barrow Upon Soar	100	
Mountsorrel	100	
Quorn	100	
Rothley	100	
Sileby	100	
<b>Total</b>	<b>8,100</b>	

## Option 2 – Urban Concentration B (Low Growth Scenario)

Settlement	Dwellings	Notable sites and assumptions
Leicester Urban Area (Birstall, Thurmaston and Syston)	3,000	Majority of available sites (total 3,346) including one large site at Syston (1,200 homes, south of Syston)
Loughborough	800	A mix of small and medium sized sites in and around the town.
Shepshed	2,200	Majority of available sites (total 2,686) including large and medium sites west of Shepshed and mix of small and medium sized sites in and around the town.
Anstey	400	A mix of small and medium sized sites, total of 2,100 in the Service Centres.
Barrow Upon Soar	400	
Mountsorrel	100	
Quorn	400	
Rothley	400	
Sileby	400	
<b>Total</b>	<b>8,100</b>	

### Option 3 – Dispersed Settlement Hierarchy Distribution (Low Growth Scenario)

Settlement	Dwellings	Notable sites and assumptions
Leicester Urban Area (Birstall, Thurmaston and Syston)	1,000	Mix of sites.
Loughborough	2,000	Mix of sites including one large site (1,100 south of Loughborough) .
Shepshed	2,200	Large and medium sites west of Shepshed and mix of small and medium sized sites in and around the town. Base appraisal on these sites.
Anstey	300	A mix of small and medium sized sites, total of 1,600 homes at the Service Centres.
Barrow Upon Soar	300	
Mountsorrel	100	
Quorn	300	
Rothley	300	
Sileby	300	
Barkby	100	
Burton on the Wolds	100	
Cossington	100	
East Goscote	100	
Hathern	100	
Newtown Linford	100	
Queniborough	100	
Rearsby	100	
Seagrave	100	
Swithland	0	
Thrussington	100	
Thurcaston	100	
Woodhouse Eaves	100	
Wymeswold	100	
<b>Total</b>	<b>8,100</b>	

#### Option 4 – Urban Concentration and New Settlement (Low Growth Scenario)

Settlement	Dwellings	Notable sites and assumptions
Leicester Urban Area (Birstall, Thurmaston and Syston)	2,500	Majority of available sites (total 3,346) including one large site at Syston (1,200 homes, south of Syston)
Loughborough	2,000	Mix of sites including one large site (1,000 south west of Loughborough – part of site promoted)
Shepshed	1,500	Large and medium sites west of Shepshed and mix of small and medium sized sites in and around the town.
Anstey	200	A mix of small and medium sized sites, a total of 1,100 homes at the Service Centres
Barrow Upon Soar	200	
Mountsorrel	100	
Quorn	200	
Rothley	200	
Sileby	200	
Cotes New Settlement	1,000	
<b>Total</b>	<b>8,100</b>	

#### Option 5 – Urban Concentration (High Growth Scenario)

Settlement	Dwellings	Notable sites and assumptions
Leicester Urban Area (Birstall, Thurmaston and Syston)	3,300	Majority of available sites (total 3,346) including one large site at Syston (1,200 homes, south of Syston)
Loughborough	5,150	Majority of available sites (total 5,154) includes large sites South and South West of Loughborough...
Shepshed	2,650	Majority of available sites (total 2,686) including large site west of Shepshed.
Anstey	950	Majority of available sites, a total of 4,600 homes at the Service Centres
Barrow Upon Soar	900	
Mountsorrel	100	
Quorn	700	
Rothley	850	
Sileby	900	
Markfield	200	
<b>Total</b>	<b>15,700</b>	

### Option 6 – Dispersed Settlement Hierarchy Distribution (High Growth Scenario)

Settlement	Dwellings	Notable Sites
Leicester Urban Area (Birstall, Thurmaston and Syston)	3,300	Majority of available sites (total 3,346) including one large site at Syston (1,200 homes, south of Syston)
Loughborough	4,600	Majority of available sites (total 5,154) includes large sites South and South West of Loughborough
Shepshed	2,500	Majority of available sites (total 2,686) including large site west of Shepshed.  Option B4 involved 7050 dwellings at Loughborough/Shepshed. This is a similar amount to this option, but it was not known how it would be split before.
Anstey	600	A mix of small and medium sized sites, total of 3,100 homes at the Service Centres
Barrow Upon Soar	600	
Mountsorrel	100	
Quorn	600	
Rothley	600	
Sileby	600	
Barkby	200	A mix of small and medium sized sites, total of 2,200
Burton on the Wolds	200	
Cossington	200	
East Goscote	200	
Hathern	100	
Newtown Linford	200	
Queniborough	200	
Rearsby	200	
Seagrave	100	
Swithland	0	
Thrussington	100	
Thurcaston	200	
Woodhouse Eaves	100	
Wymeswold	200	
<b>Total</b>	<b>15,700</b>	

### Option 7 – Urban Concentration and New Settlement (High Growth Scenario)

Settlement	Dwellings	Notable Sites
Leicester Urban Area (Birstall, Thurmaston and Syston)	3,900	Majority of available sites (total 3,346) including a large site at Syston (1,200 homes, south of Syston) and plus a large site at Thurcaston (600 homes north east of Thurcaston)
Loughborough	3,300	Majority of available sites (total 5,154) includes large sites at South (1,000) and South West of Loughborough (1,500)
Shepshed	2,600	Majority of available sites (total 2,686) including large site west of Shepshed.
Anstey	950	A mix of small and medium sized sites, a total of 4,400 homes at the Service Centres
Barrow Upon Soar	900	
Mountsorrel	100	
Quorn	700	
Rothley	850	
Sileby	900	
Cotes New Settlement	1,500	
<b>Total</b>	<b>15,700</b>	

### Hybrid Option

Settlement	Dwellings	Notable Sites
Leicester Urban Area (Birstall, Thurmaston and Syston)	2,000	
Loughborough	2,000	
Shepshed	2,000	
Anstey	180	
Barrow Upon Soar	180	
Mountsorrel	100	
Quorn	180	
Rothley	180	
Sileby	180	
Other Settlements	800	
<b>Total</b>	<b>7,800</b>	

## **APPENDIX D: APPRAISAL OF REFINED OPTIONS FOR HOUSING GROWTH**

### **Lower Growth Options**

- Option 1: Urban Concentration A
- Option 2: Urban Concentration B
- Option 3: Dispersed Settlement Hierarchy
- Option 4: Urban Concentration / New Settlement
- Hybrid Option

### **Higher Growth Options**

- Option 5: Urban Concentration
- Option 6: Dispersed Settlement Hierarchy
- Option 7: Urban Concentration / New Settlement

## Methodology

The appraisal will identify and evaluate ‘likely significant effects’ on the baseline / likely future baseline associated with each option, drawing on the sustainability topics and objectives as a methodological framework.

The task of forecasting effects can be challenging due to:

- The high level nature of the alternatives under consideration;
- Being limited by definition of the baseline and (in particular) the future baseline;
- The ability of developers to design out/mitigate effects during the planning application stage.

In light of this, where likely significant effects are predicted this is done with an accompanying explanation of the assumptions made.<sup>11</sup>

It is important to note that effects are predicted based upon the criteria presented within the SEA Regulations.<sup>12</sup> So, for example, account is taken of the nature of effects (including magnitude, spatial coverage and duration), the sensitivity of receptors, and the likelihood of effects occurring as far as possible.

The potential for ‘cumulative’ effects is also considered. These effect ‘characteristics’ are described within the appraisal as appropriate under each sustainability topic. A table is also presented under each topic summarising the predicted effects and their characteristics (i.e. namely whether they are significant or not).

For each option, one of the following symbols has been allocated for each SA objective.

Where there is uncertainty, the nature of such effects has been identified. For example, an uncertain negative effect would be recorded if there is a chance that negative effects could occur but this is dependent upon unknown factors. It may still be possible to rule out significant effects though, and so the unknown effect may be minor or potentially significant.

Effects Significance	Effects symbol
<i>Significant positive effects</i>	++
<i>Minor positive effects</i>	+
<i>Neutral effects</i>	0
<i>Minor negative effect</i>	-
<i>Significant negative effect</i>	--

Uncertain effects	Effects symbol
<i>Uncertain significant positive effect</i>	++?
<i>Uncertain minor positive effect</i>	+?
<i>Uncertain effects</i>	?
<i>Uncertain minor negative effect</i>	-?
<i>Uncertain significant negative effect</i>	--?

<sup>11</sup> As stated by Government Guidance (The Plan Making Manual, see <http://www.pas.gov.uk/pas/core/page.do?pagelid=156210>): "Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification."

<sup>12</sup> Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004

### Settlement level effects / overall effects

Where appropriate and possible, the effects have been broken down by the different spatial areas where they would occur (i.e. The different levels of the settlement hierarchy outlined below).

- Leicester Urban Area (LUA)
- Loughborough / Shepshed.
- Service Centres
- Other Settlements
- Smaller villages and hamlets
- New Settlements
- Large standalone settlement

The overall effects across the borough are then identified, taking into account the effects that have been predicted in different areas across the Borough.

The overall effects are not simply determined through a process of 'adding-up' positives and negatives; rather it is a professional judgement of how significant the overall effects would be for the Borough, taking into account the effects identified locally.

For example, whilst effects might be significant at a local scale at particular settlements (for example the loss of a playing field), the effects on the baseline overall may not be significant overall should there be positive effects (enhancements) or neutral effects elsewhere across the Borough.

An explanation is given to justify the significance scores identified for each option both at the settlement level and for the borough as a whole.

### Assumptions

There are some consistent assumptions applied across the appraisals:

As there are no development sites identified for any of the options, some of the effects are not certain, but a precautionary approach has been taken to the assessment of effects.

At lower levels of growth there will be greater flexibility in the choice of sites that can be allocated to deliver the housing targets. Similarly, the availability of sites and capacity of land in different settlements will influence flexibility.

It is presumed that the majority of committed development will be built out in the plan period, and therefore forms part of the projected baseline position. The effects of the options beyond this baseline position form the basis of this appraisal.

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### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Growth at the service centres would most likely be at the edge of these settlements. The effects would depend upon the level of growth in different service centres. The broad issues and opportunities at each service centre are discussed below.

At Barrow upon Soar, development could encroach into the surrounding countryside. However, it ought to be possible to accommodate modest growth without affecting the character of the settlement significantly. There should be no significant issues of coalescence. However, at higher levels of growth, the character of the approach to the settlement could be affected negatively. Development at certain sites could also present opportunities to deliver enhancements in a green infrastructure enhancement zone<sup>13</sup>.

At Quorn, there is a potential area of separation between Quorn and Loughborough. Development here could therefore have effects on the function of this land. For example, sites PSH343 and PSH98 are categorised as low-medium sensitivity, To the south-west of Quorn parts have been identified as having medium-high landscape sensitivity. Whereas the land to the North-East has been identified as Low sensitivity, therefore development in this location is likely to lead to less significant impacts on landscape.

At Sileby, identified development opportunities (in combination) could be of a magnitude to significantly alter the character of the surrounding landscape. Lower levels of growth could be accommodated without encroaching into the countryside substantially. However, at higher growth levels land to the north-east may need to accommodate growth which has been identified as medium sensitivity to growth, unlike the remaining sites to the east and within the built up area which have been identified as having low-medium landscape sensitivity.

Between Mountsorrel and Rothley (and between Rothley and Birstall) there are committed developments that could already close the gap between these settlements. Further development to the north west of Cross Hedge could contribute to further narrowing, though only marginally. There is an Area of Local Separation proposed to the west of Rothley in the gap between Rothley Ridgeway, and new development has the potential to affect the setting of these two settlements as they have been classified as medium landscape sensitivity. Development to the east of Rothley (PSH435 for example) could also lead to further narrowing of green spaces between Rothley and Mountsorrel. Despite this being categorised as medium sensitivity, the cumulative loss of land could potentially be significant if higher levels of growth were involved.

Development at Anstey would present an opportunity to deliver enhancements in a green infrastructure enhancement area. The landscape sensitivity to the east, south and south west of Anstey is classified as 'medium', with two small sites to the north-west being classified as low-medium sensitivity and therefore would be less sensitive to development in this location. Consequently, the effects here would be anticipated to be neutral (providing that growth was relatively modest).

Option 1 would deliver the lowest level of growth to each of the Service Centres. The level of growth proposed at each settlement is relatively low (100 dwellings), and there is sufficient capacity to deliver this level of housing development at each settlement without generating significant negative effects upon landscape character or function. This would be dependent upon site selection and the layout and design of development though, and so there is some uncertainty. Whilst there could be some potential for enhancement of landscape, the scale of growth is relatively low, and so local improvements are likely to be small scale. On balance, the effects are predicted to be **neutral** at this stage.

Option 3 involves almost treble the amount of development at each of the service centres compared to Option 1 (with the exception of Mountsorrel). This would necessitate increased release of greenfield land, and would be more likely to start encroaching on more sensitive areas and reduce flexibility (though this would still only be medium sensitivity at worst). Consequently **an uncertain minor negative effect** is predicted.

Option 2 would deliver a slightly higher level of growth still compared to Options 1 and 3. Again, this could predominantly be accommodated without developing in areas of high or medium-high landscape sensitivity. However, the scale of development would be more likely to have an effect on the function of the landscape in some service centres, and lead to more notable changes to the form of settlements. This is particularly the case where there are areas of local separation such as Quorn and between Mountsorrel / Rothley. Consequently, a **minor negative effect** is predicted.

<sup>13</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

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Option 4 involves double the amount of growth at the service centres compared to Option 1, with the exception of Mountsorrel, which remains at 100 dwellings. For Barrow upon Soar there would be a need for greater release of greenfield land at the urban fringes, which could potentially have more prominent effects on landscape character at key routes into the settlement.

Alternatively, it could involve development adjacent to the railway line, reducing open space between residential areas. As a consequence, an uncertain negative effect is predicted at this location. At Mountsorrel, the effects are likely to be the same as for option 1 (neutral).

For Quorn, it should still be possible to deliver development without encroaching onto land which has an important landscape function. However, this depends upon site selection.

At Sileby, the additional growth would lead to changes to the form of the settlement, but this is unlikely to lead to significant effects given that landscape is of medium sensitivity.

At Rothley, it should still be possible to limit development to one site, or for low density sensitive growth at several sites. Therefore, the potential for negative effects is predicted to be minor, and not definite. The same is the case for Anstey.

Overall, this level of growth is predicted to have **uncertain minor negative effects**. This low amount of growth would allow for some flexibility and would minimise the need to encroach into Areas of Local Separation. There is also potential for green infrastructure enhancement at several settlements<sup>3</sup>, which ought to offset the negative effects somewhat.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 would deliver a much higher level of growth than any option under Scenario A. Therefore, greater amounts of greenfield land would need to be released. It may still be possible to avoid significant effects for some of the service centres given the availability of less sensitive land. However, at other settlements, significant effects could be generated. These effects include potential for coalescence between Quorn and Loughborough and Mountsorrel and Rothley. For Options 5 and 7 in particular (which involve the highest amount of growth at the service centres), there could be expansion into more sensitive locations, and so **significant negative effects** are predicted.

Option 5 still involves substantial growth, but the level of development could allow for the incorporation of greater amounts of mitigation and enhancement (i.e. landscaping and buffer zones) and avoidance of the most sensitive locations. Therefore, the likelihood of **significant negative effects** occurring is not definite.

### Hybrid Option (7,800 homes in total)

This approach involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. **uncertain minor negative effects**).

## Loughborough

### Scenario A (Discussion of options for delivering 8,100 homes)

Development within the urban area of Loughborough is unlikely to affect landscape character. However, each option would involve a degree of growth at the urban fringes (to differing extents).

To the south west of the Loughborough urban area, site options that lie adjacent to the Charnwood Forest are within zones of medium-high landscape sensitivity to change. Development here would be likely to have negative effects upon the landscape character of the Charnwood Forest. To the south east of the urban area there are parcels of land with slightly lower landscape sensitivity with the small parcels identified as having low-medium sensitivity to development and the larger parcels being identified as medium sensitivity (PSH255) or medium high (PSH248), but these form part of a potential area of local separation between Loughborough and Quorn. Therefore, development here may also have potential for negative effects. (for example PSH248) or medium capacity

Option 1, which involves the highest level of growth, is more likely to encroach upon land to the south of Loughborough. Consequently, the potential for negative effects is higher. There ought to be some flexibility to avoid the most sensitive areas and to deliver lower density development as well as enhancing green infrastructure. However, a precautionary approach is taken so **significant negative effects** are predicted as there would be areas of medium-high sensitivity affected. To a lesser extent, options 3 and 4 will also encroach upon land to the south of

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Loughborough, but there is greater opportunity to avoid the most sensitive areas. An uncertain **minor negative effect** is predicted as a result.

Option 2 would involve a lower level of growth to other options and could be delivered without encroaching onto the most sensitive areas including greenfield land.

Depending upon site location, it may also be possible to achieve enhancements to green infrastructure. Therefore, a **neutral effect** is predicted on balance.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 would require substantial release of greenfield land south and south west of Loughborough. At this scale of growth, it would be almost certain that the most sensitive areas of landscape could be affected and therefore **significant negative effects** are predicted. The effects would be most prominent for option 5, which involves the highest level of growth.

Option 7 is predicted to have a **significant negative effect**, as some encroachment upon land to the south of Loughborough which are the most sensitive landscape areas.

### Hybrid Option (7,800 homes in total)

This approach involves the same amount of growth as options 3 and 4 and therefore the effects are predicted to be the same (i.e. uncertain **minor negative effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

In Shepshed, the sensitivity of landscape is mixed, with the west broadly being classified as medium landscape sensitivity, however if all these sites were to be developed this could lead to more significant cumulative impacts. The south being broadly classified as low-medium sensitivity, whilst to the west along 'Black Brook' the sensitivity is determined to be medium<sup>14</sup>. This area has also been identified as a green infrastructure enhancement zone<sup>15</sup> and development could be the mechanism for achieving such improvements. Consequently, modest growth in these locations ought to have mostly neutral effects.

Development within the urban area of Shepshed is unlikely to affect landscape character. Lower levels of growth on sites west of Shepshed and growth within the urban area (option 1) are predicted to have a **neutral effect**.

Options 3 and 4 will require a greater amount of growth along the west of Shepshed; which is an area of medium landscape sensitivity. Despite the potential for green infrastructure enhancements, the greater amount of houses / density of development would make it more difficult to avoid negative effects. Therefore, a **minor negative effect** is predicted.

The proposed growth in option 2 would require further development in the area. Despite this area only being of medium sensitivity in most places, the cumulative effects of multiple sites being developed could potentially generate significant negative effects. However, there is potential for enhancement in a green infrastructure enhancement zone which ought to offset these effects. Consequently, only **minor negative effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

With the scale of growth proposed for options 5, 6 and 7, even further release of greenfield land would be required. This would increase the chances of development on the more sensitive areas of landscape, and therefore **significant negative effects** are predicted. Although the growth has potential to deliver major improvements in green infrastructure, the areas of enhancements will likely be constrained due to the amount of growth required.

### Hybrid Option (7,800 homes in total)

This approach involves slightly less growth at Shepshed than Option 2. The effects are therefore predicted to be the same (i.e. **minor negative effects**).

## Leicester urban area:

<sup>14</sup> Borough of Charnwood Landscape Sensitivity Assessment 2018 Summary for SHLAA sites

<sup>15</sup> Green Wedges, Urban Fringe, Green Infrastructure Enhancement Zones and Areas of Local Separation: Methodology and Assessment Findings Report (March 2016) ARUP on behalf of Charnwood Borough Council

## Landscape

### Scenario A (Discussion of options for delivering 8,100 homes)

Development at the Leicester urban area would involve several sites in the urban area of Thurmaston and Birstall.

The effect on landscape as a result of such development is likely to be neutral given that the urban area is less sensitive to change.

However, to meet higher levels of housing growth (as per Options 1, 2 and 4), there would also be a need to release greenfield land on the urban fringes. This might include land classified as Green Wedge adjacent to the A563 and / or land adjacent to existing residential areas at Hamilton. The loss of such landscape function is considered to be a minor negative effect for options 1, 2 and 4.

At Syston, higher levels of growth (associated with options 1, 2 and 4) could involve a Green Wedge and potential Area of Separation between Syston and the Leicester Urban Area (Thurmaston), on land which is classified as medium-high sensitivity. It may be necessary to encroach into this area, which could effectively lead to further coalescence of these settlements. This could be a **significant negative effect** in this location for options 1 and 2. For Option 4, the scale of growth is slightly smaller and so there ought to be greater potential to avoid significant negative effects.

A smaller scale release of land to the east of Birstall settlement (where landscape sensitivity is identified as medium-high or smaller sites as low) would be less of an issue. Development at certain sites could also present opportunities to deliver enhancements in a green infrastructure enhancement zone<sup>5</sup>.

For option 3, the effects are predicted to be a **neutral effect**, as the scale of growth is such that greenfield land loss ought to be much lower and easier to avoid.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve slightly more growth compared to options 1 and 2, and therefore an **significant negative effect** is predicted. Option 7 involves a higher level of growth and includes a large site north east of Thurmaston. This ought to result in the loss of further greenfield land. Consequently, a **significant negative effect** is predicted.

### Hybrid Option (7,800 homes in total)

This approach involves more growth than Option 1 but less than Option 4. The effects are predicted to be **potential minor negative effects**.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 do not involve growth in other settlements, and so a **neutral effect** is predicted for each. For option 3, there would be growth across the other settlements.

Development at the other settlements would have mixed effects upon landscape. At some settlements, it ought to be possible to accommodate a modest amount of development without majorly affecting the surrounding landscapes. For example at Thrussington, Burton-on-the-Wolds and to a lesser degree at Hathern.

At other settlements though, there are site development options falling with existing Areas of Local Separation. Development here would have the potential to significantly affect landscape character and contribute to coalescence of settlements. For example, development could occur on land between Rearsby and East Goscote, closing the gap between these villages. Likewise, there are a number of site opportunities that fall within an Area of Separation between East Goscote and Queniborough, and Syston and Queniborough. Other locations are sensitive by virtue of their rural nature and the settlements in relation to site options for development; for example Newton Linford, Woodhouse Eaves and Barkby. In combination, growth in these areas could lead to negative effects upon landscape character in these parts of the borough.

For option 3, a **neutral effect** is predicted, as the proposed growth still allows for development on sites that would avoid areas of local separation, could be delivered in keeping with the scale and form of existing settlements, and offers a degree of flexibility.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 involve no growth at the other settlements and so **neutral effects** are predicted. Option 6 involves

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the same levels of growth to option 3 (scenario A) for some settlement areas and double to others. A **minor negative effect** is predicted as development on some sites may resemble a sense of coalescence, such as sites between Rearsby and East Goscote. The higher scale of development in settlements that are characterised by their small scale and rural nature would also be more likely to lead to negative effects. Significant effects are unlikely though as there is sufficient land available to be able to deliver growth without developing in areas classed as medium-high landscape sensitivity.

### Hybrid Option (7,800 homes in total)

This approach involves a lower amount of growth compared to Option 3, and so **neutral effects** are also predicted.

### **New settlement:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

A new settlement would occur in the open countryside at Cotes, which would be visible along the northern parts of the River Soar Valley. The landscape has been identified as medium-high sensitivity. The scale and nature of a new settlement could therefore erode the rural nature of this part of the borough

As a large scale strategic development, the new settlement has the potential to incorporate substantial amounts of green infrastructure, which ought to help mitigate negative effects and secure enhancements. However, given the higher sensitivity of land in this location, the potential for significant negative effects exists. Consequently, an **uncertain significant negative effect** is predicted overall for Option 4.

As other options (1, 2 and 3) do not propose a new settlement, a **neutral effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 7 involves a similar (but greater) level of growth at a new settlement at Cotes. A new settlement of this scale will likely be more prominent and poses greater risk to eroding the intrinsic rural nature of the area. However, the scale of development could provide greater opportunities to implement green infrastructures that protect and enhance landscape character. The option is therefore predicted to have a **significant negative effect**.

Options 5 and 6 are predicted to have **neutral effects** as there would be no growth at new settlements.

### Hybrid Option (7,800 homes in total)

This approach does not involve any growth at a new standalone settlement and so **neutral effects** are predicted.

### **Overall effects**

Option 1 is predicted to have negative effects in Loughborough and the LUA (which could potentially be significant in these locations depending upon the sites developed). There are neutral effects predicted at all other settlements across the borough (which helps to 'offset' the effects at Loughborough and the LUA from a borough wide perspective). However, the **significant negative effects** at Loughborough and the LUA are considered to be significant from a borough-wide perspective.

Option 2 would also involve potentially significant effects at the Leicester Urban Area, but there would be no negative effects in Loughborough. Though negative effects could occur at Shepshed and the service centres instead, these would be minor or neutral. Overall, a **significant negative effect** is predicted. However, there is uncertainty, as the effects could potentially be avoided and would be limited mainly to the Leicester Urban Area.

Option 3 is predicted to have neutral effects in most settlements, with the exception of Shepshed and possibly Loughborough. The effects would not likely be significant though at a local level or a borough-wise perspective. Therefore, overall, the effects are only **minor**, and could potentially be avoided.

Option 4 would generate negative effects in most of the settlements across the borough, but these would only be minor in nature. Overall, there would be a general worsening of the landscape across the borough, and this could be potentially significant in the case of a new standalone settlement in Cotes. In combination, the effects are predicted to be **significantly negative**.

Options 5, 6 and 7 are predicted to have a **significant negative effect** overall. The effects in Loughborough would likely be significant given the need to develop adjacent to Charnwood Forest and the loss of a number of sites at the urban fringe. Similarly, significant effects are predicted at service centres and Shepshed, as the scale of growth

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proposed would require the release of substantial greenfield land and sensitive areas of landscape. A **significant negative effect** is predicted overall for each option.

The Hybrid Option is predicted to have minor negative effects at the majority of settlements across the borough apart from the smaller 'other settlements'. However, the effects could be avoidable / possible to mitigate in most locations. Overall, **minor negative effects** are predicted.

	Service centres	Lough-borough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	--	0	--?	0	0	--
Option 2: Urban Concentration B	-	0	-	--?	0	0	--?
Option 3: Dispersed Settlement Hierarchy	?	?	-	0	0	0	?
Option 4: Urban Concentration / New Settlement	?	?	-	-	0	--?	--
<b>Hybrid Option</b>	?	?	-	?	0	0	-
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	--	--	--	--	0	0	--
Option 6: Dispersed Settlement Hierarchy	--?	--	--	--	-	0	--
Option 7: Urban Concentration / New Settlement	--	--	--	--	0	--	--

## Biodiversity and nature conservation

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 and 4 propose relatively low level of growth to the service centres. Therefore, it is unlikely there will be direct effects on designated habitat sites in/around any of the service centres. Growth along the Soar Valley could potentially disturb species movement and/or impact the wildlife corridor function of the Soar Valley. There are also areas identified as 'Sites of Importance for Nature Conservation' which are more likely to be affected by development at higher levels of growth. However for these two options, it ought to be possible to better avoid development in close proximity to the Soar Valley wildlife corridor and areas identified as important for wildlife. Consequently, a **neutral effect** is predicted for Option 1 (which involves the lowest level of growth). An uncertain **minor negative effect** is predicted for Option 4, as there higher scale of growth could necessitate development closer to sensitive areas.

Options 2 and 3 involve higher levels of growth in areas such as Quorn, Rothley and Barrow upon Soar. This will require the release of additional greenfield land, and this might be more likely to be in close proximity to wildlife sites such as along Rothley Brook, adjacent to Quorn House Park, and along the River Soar corridor. For both options, **minor negative effects** are predicted. Significant effects should still be possible to avoid as flexibility in site choice would remain, and there ought to be opportunities to enhance green infrastructure.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 all involve substantially more growth along the Soar Valley at Service Centres. This could put additional pressure on biodiversity by disturbing ecological corridors. In particular, there would be a need to locate development adjacent to watercourses, and there would be a greater loss of greenfield land along the Soar Valley. The potential for significant negative effects therefore exists, but it ought to be possible to mitigate effects by ensuring that growth implements green infrastructure enhancements. However, these three options are predicted to have **significant negative effects** at this stage.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. an **uncertain minor negative effect**).

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

For option 1, the level of growth is the highest (4000 homes) for this scenario, and could potentially necessitate the release of land in the more sensitive areas to the south of Loughborough. For example, sites near local nature reserves, and SSSI's (in particular, this would be wooded areas within the Charnwood Forest such as Mucklin Wood, and Beacon Hill, Hangingstone and Out Woods). The potential for effects here would be greater as there could be a disturbance to species (noise, light, loss of supporting habitat), increased visitor pressure, introduction of domestic animals and the potential to fragment habitats. However, this level of growth still allows for some flexibility in site choice and lower-density sensitive development. Therefore, a **minor negative effect** is predicted.

The next highest growth options under this scenario are options 3 and 4 (2000 dwellings). These options would perhaps allow the more sensitive sites (to the south-west of Loughborough) to be avoided, or at least at a much lower scale of development. However, there would still be a need to develop sites in the urban area of Loughborough and some more limited release of greenfield sites. Development within the inner core of Loughborough would not be anticipated to have negative effects on biodiversity, as there are no major sites or ecological networks in this area. Consequently, the certainty of effects occurring is lower, and so **uncertain minor negative effects** are predicted.

Option 2 involves a relatively low level of growth which could be accommodated in the urban area and a much lower level of greenfield release. Consequently, a **neutral effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 6 would involve 600 more homes when compared to Option 1. This would necessitate the release of further greenfield land to the south of Loughborough, which would make the likelihood of significant effects greater. Though there could still be potential to mitigate and avoid effects, it is less of a certainty, therefore uncertain **significant negative effects** are predicted.

## Biodiversity and nature conservation

Option 7 involves 700 fewer homes compared to Option 1, and so the likelihood of negative effects occurring is lower. However, the scale of growth would still be capable of generating minor negative effects.

Option 5 would involve the highest amount of growth, which could generate **significant negative effects** as there would be less flexibility and ability to avoid encroachment into the Charnwood Forest.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. an **uncertain minor negative effect**).

### **Shepshed:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 involves limited growth in Shepshed, which could be delivered in the urban area and / or less sensitive sites on the settlement fringes. Therefore, **neutral effects** are predicted.

Option 2 involves a higher level of growth that would necessitate the release of greenfield sites on the urban fringes. This would likely involve sites to the west of the settlement nearby to Black Brook, which could affect water quality and / or disturb species reliant upon the water environment. Likewise, development to the south of Shepshed is adjacent to Newhurst Quarry SSSI, and could potentially affect habitats and species here. It could be possible to implement enhancement in this area, but **minor negative effects** are predicted at this stage.

Options 3 and 4 involve lower levels of growth which ought to allow for effects to be better avoided. For example through avoidance of sensitive sites, lower-density development that include substantial elements of green infrastructure. Therefore, **uncertain minor negative effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Each of the options would involve higher growth compared to all of those under Scenario A. The likelihood of negative effects occurring is therefore greater still. Significant effects ought to be possible to avoid though provided that enhancement measures are secured, and development is not concentrated in one location (i.e. all to the west / all to the south). At this stage, **minor negative effects** are predicted.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. **Minor negative effects** are therefore predicted.

### **Leicester Urban Area:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 and 2 propose the delivery of 3000 homes. The likely location of sites would be within and adjacent to the Leicester Urban Area, such as within Thurmaston, adjacent to the City boundary and adjacent to the A46. There would also be growth at Syston. The locations of the site development options in these areas do not fall within areas of particular sensitivity with regards to impacts on SSSIs. However, the location of some sites along the River Soar valley (near to Watermead Country Park) could potentially cause disturbance to habitats and species here (during construction, and also as a result of increased recreational pressure once homes are built). However, a change of industrial uses to housing on some sites could reduce the impact of noise, heavy vehicles and air quality effects though, which would offset negative effects somewhat. On balance **minor negative effects** are predicted, as the sites affected are not nationally important, the magnitude of effects would be low, and enhancement ought to be possible.

Option 3 proposes a lower level of growth of 1000, which ought to allow for greater flexibility in the choice of sites, or the application of lower density development with greater incorporation of green infrastructure. Therefore, a **neutral effect** is predicted.

Option 4 has a slightly lower level of growth of 2500 homes which could present greater flexibility compared to options 1 and 2. However, it is still not certain that the most sensitive areas would be avoided. Therefore an **uncertain negative effect** is predicted.

## Biodiversity and nature conservation

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 would likely have the same effects as option 1 and 2 given that the level of growth is just slightly higher. **Minor negative effects** are predicted.

Option 7 proposes slightly higher growth to option 5 and 6 (600 homes more). This presents a greater likelihood of negative effects occurring. However, significant effects should still be possible to avoid given the mostly urban location of site options. On greenfield sites at Sileby, the land is agricultural and is not thought to have particular value for biodiversity. Therefore, only **minor negative effects** are predicted.

### Hybrid Option (7,800 homes in total)

This approach involves double the amount of growth at the Leicester Urban Area as Option 3, which is less than all the other options (apart from option 3). The precise location of growth will determine whether negative effects could occur or not. However, this scale of growth ought to ensure that negative effects can be avoided in the main. Therefore, **uncertain minor negative effects** are predicted.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 do not involve any growth in the 'other settlements', therefore **neutral effects are** predicted for each of these options. In the absence of a revised Local Plan, it is unlikely that there would be substantial growth in these areas anyway, so the situation would be fairly similar.

Only option 3 involves growth in 'other settlements'. There is an even split amongst the settlements, which means that the amount in any one settlement is relatively low.

It is likely that growth could be accommodated in most locations without having significant effects on biodiversity. This is the case for Barkby, Queniborough, East Goscote, Rearsby, Wymeswold, Cossington, Thrussington and Burton on the Wolds; where site options are not within close proximity to sensitive habitats, and there is flexibility in site choice at this scale of growth.

For other settlements there is potential for negative effects due to the potential to disturb habitats in the Charnwood Forest (Newton Linford and Woodhouse Eaves for example), or the potential to fragment ecological corridors through the Soar Valley (For example, Thurcaston). These effects could be significant from a local perspective, especially at Woodhouse Eaves where site options overlap with local wildlife sites. However, from a borough-wide perspective, the effects would be fairly limited, and so only **uncertain minor negative effects** are predicted. At this scale of growth it should be possible to redirect development from settlements with greater sensitivities to those with less sensitivity.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 7 does not involve growth in these settlements, and so **neutral effects** are predicted.

Options 5 and 6 involve almost double the growth compared to option A4. Therefore, the effects are more likely to occur and a **minor negative effect** is predicted (rather than an uncertain effect at the lower scale of growth under Option 4).

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). Whilst there are settlements that are sensitive, the effects should be possible to mitigate and would be **neutral** from a borough wide perspective.

### **New / expanded settlement:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option 4 involves a new / standalone settlement. The effects are therefore **neutral** for options 1, 2, and 3.

Development would be adjacent to Cotes Grassland SSSI, and additional grassland identified as a Local Wildlife Site. It would also be alongside the River Soar valley. Development would be large scale, and could potentially lead to negative effects on wildlife that relies upon these habitats.

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However, development at such a scale would allow for the incorporation of substantial areas of green infrastructure which should draw people away from the more sensitive areas with regards to recreation. Consequently, only **minor negative effects** would be expected, which could be neutral in the longer term once green infrastructure is well established.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 would have **neutral effects** as there is no proposed growth in a new settlement for these options.

Only option 7 involves a new settlement, but the level of growth is 500 dwellings higher than for Option 1. However, the effects are predicted to be broadly the same. The site area is more than sufficient to accommodate 1500 homes and should still be able to protect wildlife interests and secure enhancements. Therefore, only **minor negative effects** are predicted.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### **Overall effects**

Option 1 is predicted to have neutral effects in service centres, Shepshed and smaller settlements across the Borough. However, due to the focused growth at Loughborough there is potential for minor negative effects upon habitats and species at Charnwood Forest. In addition, there are potential minor negative effects upon the Soar Valley through a focus on the LUA. Overall, a **minor negative effect** is predicted for this option. Although there are neutral effects in some locations, negative effects are likely to occur in sensitive locations such as Charnwood Forest and the River Soar Valley. These are not predicted to be significant in isolation or combination though.

Option 2 is predicted to have minor negative effects at service centres in several parts of the borough. This reflects the potential for disturbance along the River Soar and severance of ecological networks. Minor effects are also predicted as there is potential for localised effects on biodiversity near Loughborough and within the Leicester urban area. Overall, the effects are predicted to be **minor**. There would be no significant effects in any one part of the borough, and the effects on wildlife in each of the different areas could possibly be mitigated, and are not likely to lead to cumulative effects due to linkages between settlements.

Option 3 is predicted to have minor negative effects, neutral effects or uncertain negative effects across the district. Though there would be effects across a wider range of locations, these are not predicted to be significant, nor would they be likely to generate a significant negative effect when considered in combination. There is also uncertainty as to whether negative effects would arise, and so overall an uncertain **minor negative effect** is predicted for this option.

Option 4 is predicted to have **uncertain negative effects**, as the dispersal of growth should help to reduce the potential for effects in any one location. The only location where negative effects are more certain is at Cotes new settlement, and these would not be significant. The potential to avoid or mitigate effects in most settlements means that overall, the effects are only minor, and potentially neutral.

Option 5 is predicted to have a **significant negative effect** overall. In particular, the level of growth in Loughborough and the service centres could lead to adverse effects on the Soar Valley and Charnwood forest, which are important locations for wildlife. Furthermore, minor negative effects are recorded at a range of other settlements across the Borough. In combination, this is considered to be a significant negative effect from a borough-wide perspective.

Option 6 is predicted to have uncertain **significant negative effects**. In the main, minor negative effects would be generated across much of the borough's settlements. However, there would be potential for significant negative effects at service centres. In combination, there could be significant negative effects along the Soar Valley due to a degree of negative effects being generated at various settlements along the corridor (with these also being significant at particular locations).

Option 7 generates significant negative effects in the service centres, and potentially at Loughborough. There would also be minor negative effects in a range of other settlements. A new settlement at Cotes would also generate negative effects due to the proximity to a local wildlife site and SSSI. Overall, a **significant negative effect** is predicted.

It should be noted that for each option, the potential for enhancement is mentioned. However, this has not been factored into the assessment, as there are no details at this stage as to what would be involved, and whether this would be achievable. This does not mean that significant or minor negative effects are a certainty though, as it is

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acknowledged several site options fall into areas that have been identified as green infrastructure enhancement areas.

The Hybrid option is predicted to have negative effects across a range of settlements, but these would only be minor, and in most instances could likely be mitigated (hence there are uncertainties involved at the service centres, Loughborough and the Leicester Urban Area).

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	-	0	-	0	0	-
Option 2: Urban Concentration B	-	0	-	-	0	0	-
Option 3: Dispersed Settlement Hierarchy	-	-?	-?	0	-?	0	-?
Option 4: Urban Concentration and New Settlement	-?	-?	-?	-?	0	-	-?
<b>Hybrid Option</b>	-?	-?	-	-?	0	0	-?
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	--	--	-	-	-	0	--
Option 6: Dispersed Settlement Hierarchy	--	-	-	-	-	0	--?
Option 7: Urban Concentration / New Settlement	--	--?	-	-	0	-	--

## Water environment: Water quality

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

For each of the options, there would be differing amounts of growth at the service centres, which could impact on watercourses along the Soar Valley. In particular, this would involve the River Soar, with Quorn, Barrow upon Soar, Mountsorrel and to a lesser extent Sileby all in close proximity.

Development at these settlements could increase run-off of pollutants and sediment into watercourses, which could have a negative effect upon water quality. Similarly, the proximity of development in Anstey to Anstey and Rothley Brook could cause similar issues.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. These effects are uncertain, but are likely to be greater with the higher amount of land that is lost to agricultural uses. Therefore, **uncertain positive effects** are predicted for options 2 and 3 (which are more likely to involve a change in use from agricultural land).

For option 1, the level of growth at each service centre is relatively low, and therefore the potential for negative effects is much reduced (due to increased flexibility in development locations and less construction activity). Consequently, neutral effects are predicted.

For options 2, 3 and 4 the level of growth at each of the Service Centres is higher (except for Mountsorrel). This could increase the potential for negative effects, particularly for Option 2, which involves the most growth.

The effects are predicted to be **minor negative** for options 2 and 3, as the amount of growth proposed is likely to result in development on sites that may cause such issues. Options 1 and 4 are considered **neutral**, as the growth level is less and can be accommodated on sites that are unlikely to contaminate watercourses.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 would lead to substantially more growth in the service centres, which could exacerbate potential effects on water quality (due to construction activities) in the short term. In the longer term however, the effects are unlikely to be significant as water infrastructure would need to be upgraded and the change in land use from agricultural to residential could help to reduce pollution somewhat. There would also be a need to consider SuDs in new developments. Therefore, a **minor negative effect** is still predicted. As per options 2 and 3, there is also potential for **minor positive effects** given the greater likelihood of land use changes from agricultural to residential

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. a **neutral effect**)

### Loughborough:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 would involve the most development in Loughborough (4000 homes) followed by Options 3 and 4 (2000) then Option 2 (800 dwellings) respectively. Additional growth could potentially affect water quality in the short term, as drainage and sewage facilities may need to be upgraded to cope with additional waste water and surface water run-off. The effects are not considered to be significant though, particularly in the longer term, as there would be requirement for waste water facilities and SUDs to manage the potential effects of new development. Potential contamination to watercourses during construction could also be an issue, as described for the service centres.

For Option 1, a **potential minor negative effect** is predicted, as large areas of greenfield land would be affected to the Sough of Loughborough, with watercourses intersecting developable land. For options 2, 3 and 4, the level of growth is lower, and so the magnitude of effects is likely to be lower accordingly. Consequently, **neutral effects** are predicted.

Growth is likely to result in the change of agricultural land to the south to residential uses; this could have **positive effects** upon water quality as there may be less run-off of nitrates. These effects are uncertain, but most likely to occur for Option 1, which involves the greatest change in land use from agriculture.

## Water environment: Water quality

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 and option 6 (to a lesser extent) propose greater amounts of growth compared to the options in Scenario A. The potential for short term effects on water quality due to construction would therefore be exacerbated, though it would be expected that mitigation would be secured to ensure that effects are not significant. There is likely to be a need to enhance waste water and drainage infrastructure to support this level of growth. **Minor negative effects** are predicted for Option 5, as the scale of growth and loss of greenfield land could make it more difficult to mitigate effects. However, phased development of large sites could help manage these issues. For Option 6, the likelihood of negative effects ought to be lower, and therefore, there is an element of uncertainty as to whether negative effects would be generated.

Option 7 proposes 3,300 dwellings, which allows for greater flexibility still, and a lower magnitude of growth compared to Option 6. However, negative effects have not been ruled out given that the scale of development would be large.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **neutral effects**).

### **Shepshed:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Development options in the urban area of Shepshed are unlikely to generate pathways for pollution to watercourses, though there could be increased run off of pollutants into drains. There are no groundwater protection zones nearby either, so it is unlikely that impacts upon aquifers would occur. Site options to the west of the settlement are in close proximity to Black Brook, and could potentially lead to pollution / sedimentation during construction activities. The land here is a mix of agricultural land that appears to be in active use, whilst other land is open green space / fields. A change of use from agricultural land has the potential to reduce nitrogen deposits, and so the longer term effects could be positive.

For Option 1, the scale of growth is such that negative effects are likely to be avoided, but likewise, positive longer term effects would also be less certain. Therefore, neutral effects are predicted overall.

Option 2 and options 3 and 4 (to a lesser extent) have potential for short term effects on water quality, as drainage and sewage facilities may need to be upgraded to cope with additional waste water and surface water run-off. However, it is considered that development will be subject to adequate waste water facilities and SUDs. The scale is sufficient for contamination to watercourses to potentially occur. However, safeguarding measures during construction should be able to mitigate this. Overall, an **uncertain minor negative effect** is predicted.

The options include sites west of Shepshed which is currently actively used for agriculture. A change of use to residential uses could have positive effects upon water quality as there may be less run-off of nitrates. These effects are minor and uncertain though.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 propose between 2,500 and 2,650 dwellings, which would likely involve development on a mix of sites in the urban area and to the west of the settlement. At this scale of growth, there is potential for negative effects with regards to water quality in the short term for the same reasons outlined above. There may also be increased pressure on water treatment and drainage networks, but these issues would be expected to be resolved in the longer term. At these higher levels of growth, the potential for reduced nitrate run-off from agricultural land uses ought to be greater too. Uncertain minor negative effects are predicted to reflect the issues that might occur during construction, whilst potential positive effects are also recorded in the longer term.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Uncertain **minor negative effects** are therefore predicted along with uncertain **minor positive effects**.

### **Leicester urban area**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 and 2 involve the delivery of 3000 homes and option 4 involves the delivery of 2,500 homes. The likely location of sites would be within and adjacent to the Leicester Urban Area, such as within Thurmaston and

## Water environment: Water quality

adjacent to the City boundary. There would also likely be growth at Syston.

There are waterbodies around the River Soar and in the lakes around Leicester Marina and Watermead Country Park to the east of Thurmaston. Barkby Brook crosses the large development site in Syston.

Whilst these waterbodies are unlikely to be significantly affected, development of sites in close proximity such as the industrial estate, Mill Lane Car Park would need to ensure effective mitigation. Development which changes to residential from the existing employment uses over the longer term, could potentially bring benefits to water quality as residential development once constructed is less likely to be polluting. For the 'Land at Syston', it ought to be possible to avoid long term negative effects, but similar to development elsewhere, there could be short term / temporary disturbances to water quality; which is a **minor negative effect**.

Where actively used agricultural land is changed to residential uses, this could have **positive effects** upon water quality as there may be less run-off of nitrates. These effects are uncertain though, and only likely to occur for growth at urban fringes on agricultural land. The potential for effects is therefore fairly low.

Option 3 involves a lower amount of growth than all other options, and therefore **neutral effects** are predicted as well.

### Scenario B (Discussion of options for delivering 15,700 homes)

The level of growth for options 5 and 6 is only slightly greater than that proposed in options 1 and 2. Therefore, the effects are predicted to be similar (i.e. **uncertain minor negative effects** and **uncertain minor positive effects**).

Option 7 further includes a large site north east of Thurmaston. It is not likely to cause direct impacts on nearby watercourses, and so no further effects are predicted compared to Options 5 and 6.

### Hybrid Option (7,800 homes in total)

This approach involves double the amount of growth at the Leicester Urban Area as Option 3, which is less than all the other options (apart from option 3). Whilst negative effects could still occur, the lower scale of growth makes this less likely should more sensitive sites be avoided and overall disturbance to watercourses is lower. Conversely, the potential for improvements due to agricultural land uses is lower.

## **Other settlements:**

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 do not propose growth in other settlement areas, thus **neutral effects** are predicted for each of these options.

It is likely that growth could be accommodated in most locations without having significant effects on existing resources and water quality. Furthermore, there would also be a need to consider SuDs in new developments. Therefore option 3 is also predicted to have **neutral effects**.

Where actively used agricultural land is changed to residential uses, this could have positive effects upon water quality as there may be less run-off of nitrates. However, the scale of growth involved is relatively low, and dispersed.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 involve no growth in the other settlements and so **neutral effects** are predicted.

Option 6 involves the same levels of growth as option 3 (scenario A) for some settlement areas and double at others. In settlements where additional growth is proposed, this could put some of the smaller waste water treatment facilities under more pressure and increase surface water run-off of pollutants; having an **uncertain minor negative effect** in the short term (as waste water may be more difficult to manage in rural areas). Given the greater change of uses from agriculture, there may be minor positive effects in the longer term also.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3), and therefore **neutral effects** are also predicted.

## Water environment: Water quality

### New settlement:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option 4 involves a new settlement. The effects are therefore **neutral** for options 1, 2, and 3.

It is likely water quality would be unaffected as there will need to be new drainage and water treatment facilities installed as part of any development. Most of the site is actively used for agriculture, and a change of use to residential use could have positive effects on water quality as there may be less run-off of nitrates. These effects are uncertain but are likely to be positive in the longer term considering that the site is adjacent to the River Soar.

In the short term, there is a risk that water quality could temporarily deteriorate as a result of construction activities. However, adequate mitigation measures should ensure any effects are minimised and not significantly negative in the long term. On balance, **neutral effects** are also predicted for Option 4.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 and 6 do not propose a new settlement and thus a **neutral effect** is predicted.

The effects for Option 7 are similar to Option 4 (Scenario A) . Whilst the scale of growth is higher, the location of development would be broadly the same. The requirement for adequate drainage and waste water infrastructure to serve a new settlement should also be satisfied, and may be more viable with a greater amount of development to serve. Consequently, the effects are predicted to be the same as for Option 4 (i.e. **neutral effects** overall).

#### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

None of the options are considered likely to have significant negative effects, as the location, spread and scale of developments should ensure that pressures on water quality in any one location are reduced. However, where there is a greater amount of development in settlements, the likelihood of temporary negative effects on water quality is increased. This could be due to an increased pressure on existing water drainage and treatment infrastructure (prior to improvements being secured), and / or construction activities. Conversely, where there could be a change of land use / management, positive effects could be generated by reducing the amount of nitrates run-off into watercourses.

The location that effects are likely to occur differs for each option, as the spread of development is different.

For Option 1, the effects across the Borough are mostly neutral, but for Loughborough and the Leicester urban area, minor negative effects could be generated. In combination these are not significant at a borough scale though. Minor positive effects are predicted for the longer term, reflecting the potential for reduced nitrate pollution from agricultural land at Loughborough.

For options 2 and 3, the effects are generated at the service centres and in Shepshed, rather than Loughborough. Though the effects overall are likely to be of a slightly greater magnitude compared to Option 1, these are still unlikely to be significant from a borough wide perspective. The uncertainties that are recorded reflect the potential for negative effects to be avoided, and with regards to positives, it is unclear what degree of diffuse pollution currently occurs on land that could be developed.

For Option 4, the effects are mostly neutral for settlements across the borough, but there would be potential effects associated with a new settlement, and also due to the scale of growth in Shepshed. Again, the in-combination effects are not predicted to be significant. A new settlement would need to include comprehensive drainage and waste water treatment works in support of development in a relatively isolated location. The scale of growth should provide the economies of scale to secure effective mitigation / enhancement.

Options 5, 6 and 7 involve greater amounts of growth at individual settlements and across the borough as a whole. The potential for negative effects is therefore higher (and less uncertain), as there will be increased development that may be in close proximity to water resources. The increased growth will also put pressure on waste water treatment and drainage infrastructure.

## Water environment: Water quality

However, it is unlikely that development would be approved without subsequent planned upgrades in the longer term. Implementing sustainable drainage systems should also help to ensure that increased hardstanding does not lead to more surface water pollution, whilst a change in use from agricultural land to residential land could also contribute to a reduction in pollution. In the smaller rural settlements, the additional pressure on smaller waste water treatment sites may be more difficult to manage / more costly.

The hybrid option is predicted to have broadly neutral effects across the borough, with the exception of Shepshed and the Leicester Urban Area, where short term / temporary negative effects could be generated in relation to construction activities. In these locations, the change of use from agricultural land to residential land could potentially have minor positive effects in the long term too. Consequently, the overall effects are minor positives and negatives, but there is a degree of uncertainty.

	Service centres		Loughborough		Shepshed		LUA		Others		New settlement		Overall effects	
<b>Scenario A - 8,100 homes</b>														
Option 1: Urban Concentration A	0		- <sup>?</sup>	+ <sup>?</sup>	0		-	+ <sup>?</sup>	0		0		- <sup>?</sup>	+ <sup>?</sup>
Option 2: Urban Concentration B	-	+ <sup>?</sup>	0		- <sup>?</sup>	+ <sup>?</sup>	-	+ <sup>?</sup>	0		0		- <sup>?</sup>	+ <sup>?</sup>
Option 3: Settlement Hierarchy	-	+ <sup>?</sup>	0		- <sup>?</sup>	+ <sup>?</sup>	-	+ <sup>?</sup>	0		0		- <sup>?</sup>	+ <sup>?</sup>
Option 4: Urban Concentration / New Settlement	0		0		- <sup>?</sup>	+ <sup>?</sup>	0		0		+ <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>
<b>Hybrid Option</b>	0		0		- <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	0		0		- <sup>?</sup>	+ <sup>?</sup>
<b>Scenario B - 15,700 homes</b>														
Option 5: Urban Concentration	-	+ <sup>?</sup>	-	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	0		0		-	+ <sup>?</sup>
Option 6: Settlement Hierarchy	-	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	0		-	+ <sup>?</sup>						
Option 7: Urban Concentration / New Settlement	-	+ <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	0		- <sup>?</sup>	+ <sup>?</sup>	+ <sup>?</sup>	-		+ <sup>?</sup>	-	+ <sup>?</sup>

## Water environment: Flooding

### Service centres

#### Scenario A (Discussion of options for delivering 8,100 homes)

Though some potential development sites are adjacent to flood zones 2 and 3 there are no significant flood risks at any of the potential sites for development in Anstey.

There is also limited potential for effects in Mountsorrel, Rothley, Sileby and Barrow upon Soar for the same reasons.

Sites in Quorn, however, fall within flood zones 2, 3 and 3a and therefore potential for negative effects exists at all levels of growth. For options 1 and 4, the level of growth involved is relatively low and there are sites available that could accommodate growth in flood zone 1. Therefore neutral effects are predicted.

In Rothley, one site is intersected by large areas of flood zone 2/3. However, there is sufficient developable land available that should allow for this location to be avoided for sensitive uses (even at the highest level of growth proposed at this settlement)

For each of the options a **neutral effect** is predicted with regards to new development not being located in flood risk areas. Though there could be potential negative effects at Quorn at higher levels of growth (as for options 3 and 4), these could be avoided by diverting growth to other service centres where flood risk is lower. The overall level of growth in each of the service centres should not lead to an increased flood risk elsewhere as a result of changes to drainage regimes (provided that suitable drainage improvements are secured). However, this might be more difficult to achieve at higher levels of growth in the service centres (such as for option 2). Nevertheless, a neutral effect is predicted for each option, given that the majority of development sites would be in locations where sustainable drainage solutions ought to be possible to secure.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth the likelihood of sites being within areas at risk of fluvial flooding does not increase substantially, as the available sites at the service centres should allow for development in areas of low flood risk. However, growth at Quorn and Rothley may need to be reduced to avoid negative effects for options xx and xxx. Without this intervention, potential negative effects could occur for these options in this respect.

However, the increase in growth overall could be more difficult to manage in terms of surface water drainage and downstream flood risk. Therefore, **uncertain (minor) negative effects** are predicted for each option at this scale of growth.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. a **neutral effect**)

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

Within the Loughborough Urban Area, the majority of potential development sites fall within flood zone 1, with only several sites having small parts of the site falling within flood zones 2 and 3. The sites on the urban periphery (to the south) contain greater areas of flood zones 2 and 3. However, the site options are large, and it should therefore be possible to avoid areas of flood risk and introduce sustainable drainage systems.

For each of the options, the risk of flooding on development sites should be fairly low, as the sites are largely not at risk of flooding. At higher amounts of growth, such as that proposed in option 1, were there would be a need to release more land, then there could be development on sites that involve a greater element of flood risk. This is a potential negative effect, but ought to be possible to mitigate given the nature of the sites.

In terms of the overall level of growth, and potential changes to hydrology, a large increase in development in and around Loughborough is most likely to contribute to increased flood risk in the longer term. Therefore, option 1 is likely to have the greatest potential for negative effects in this respect also.

Overall, option 1 is predicted to have **minor negative effects**, whilst options 2, 3 and 4 are predicted to have **neutral effects**.

## Water environment: Flooding

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5, would involve considerably more development in Loughborough compared to any option under scenario A. This would most definitely involve the development of sites that contain areas at risk of flooding. However, the nature of flood risk on available development sites ought to allow for significant effects to be avoided provided that sustainable drainage systems are implemented. Furthermore, in addition to that likely to be developed to achieve growth options in scenario A is broadly in areas of low flood risk (south of Loughborough). A **minor negative effect** is predicted for options 5.

Option 6 involves similar growth to option 1, and therefore the effects would be similar (i.e. an uncertain minor negative effect). Option 7 involves a relatively low level of growth, and so the effects are neutral.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **neutral effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

Sites available for development in Shepshed are largely within flood zone 1. The exceptions are sites to the west of the settlement, where the perimeter of sites are intercepted by flood zone 2, 3 and 3a associated with Black Brook.

Option 1 states that development would likely be to the west of the settlement and on a range of sites in the urban area. At the scale of growth involved, it would be possible to avoid areas of flood risk and to incorporate SUDs given that the urban fringe sites are greenfield, and the amount of growth would not necessitate development on the entire site area to achieve a viable development. The effects in terms of local surface water drainage are unlikely to be significant given the relatively low level of growth involved.

For options 2 and 3, the level of growth is much higher, and would require more substantial growth at the urban fringes. Presuming this would be on land to the west of the settlement, it ought to be possible to accommodate growth without locating in areas at risk of flooding. The scale of growth required is unlikely to lead to significant changes to surface water runoff, particularly given that areas of green space would remain between new development and areas of flood risk. It is presumed that SUDs would be incorporated into development, which would limit negative effects upon hydrology locally and downstream. However, the potential for **minor negative effects** exists, with some uncertainty.

Option 4 would involve a slightly lower level of growth, and so the effects are predicted to be **neutral**.

### Scenario B (Discussion of options for delivering 15,700 homes)

The growth proposed for options 5, 6 and 7 is higher than any option under Scenario A. This is not substantially higher, but the additional land required for development could potentially lead to minor negative effects. Although significant effects could be avoided through the implementation of adequate and sustainable drainage systems, there would be less flexibility in the layout / density and design of development. Therefore **minor negative effects** are predicted for these three options.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Uncertain **minor negative effects** are therefore predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

There is a range of sites potentially available for development in the Leicester Urban Area that do not fall within Flood Zones 2 or 3. However, there are some sites within Thurmaston that fall entirely within Flood Zone 3. Sites in Syston have mixed risks of flooding. Several small sites in the urban area are entirely within flood zones 2/3, whilst others are in flood zone 1. At the urban fringes to the east of Syston, there are sites that are within flood zone 1, but the large site to the south / south east contains substantial areas at risk of flooding. Due to the scale of this site though, a smaller development on the non affected part of the site could be appropriate.

## Water environment: Flooding

To deliver 3000 homes (as per options 1 and 2) would require development on available sites in the Leicester Urban Area and upon sites in Syston. There ought to be sufficient land available to avoid areas of flood risk, but it is not possible to rule this out entirely, especially since the large site in Syston contains substantial areas in flood zones 2/3. Consequently, an **uncertain minor negative effect** is predicted.

At a slightly lower level of growth but including the site south of Syston (option 4), the potential for **minor negative effect** still exists, but there ought to be greater flexibility to avoid the more sensitive areas.

At a lower level of growth of 1,000 homes (option 3), these potential effects could be more easily avoided and thus a **neutral effect** is predicted.

The overall level of growth involved could also affect surface water run-off and drainage patterns for any of the options (though to a greater extent for options 1 and 2). However, several sites would likely be brownfield, and it ought to be possible to incorporate SUDs to greenfield site options given their size.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 only involve slightly higher levels of growth to options 1 and 2. Though this would reduce flexibility somewhat, it would be unlikely to generate more significant effects. Therefore, uncertain negative effects are predicted also.

A similar effect is also predicted for option 7 as the sites involved would be the same with the exception of an additional development on the site north east of Thurmaston. This site is adjacent to areas of flood risk, but ought to be possible to deliver providing that a sufficient buffer between areas of flood risk is established as well as the inclusion of sustainable natural drainage systems. The increased scale of growth in the urban area overall may be more likely to contribute to changes in surface water flood risk at this highest level of growth, and therefore the minor negative effects are more certain overall for Option 7.

### Hybrid Option (7,800 homes in total)

This approach involves double the amount of growth at the Leicester Urban Area as Option 3, which is less than all the other options (apart from option 3). Whilst negative effects could still occur (as per option 4), the lower scale of growth makes this less likely should more sensitive sites be avoided.

## **Other settlements:**

### Scenario A (Discussion of options for delivering 8,100 homes)

Sites within the 'other settlements' have mixed risk of flooding. At some settlements, potential development sites do not fall within flood risk zones 2/3 at all, or there are very small overlaps (East Goswold, Cossington, Thurmaston, Wymeswold, Hathern and Woodhouse Eaves), whilst in others, small parts of the sites fall within flood zones 2 and 3, but this is mostly at the edges of sites (Thurmaston, Rearsby, Burton on the Wolds, Barkby, Queniborough, Newtown Linford and Seagrave). There is no growth proposed in Swithland. As a result, the potential for negative effects with regards to new development being at risk of flooding is low, even at the higher scales of growth in these settlements.

Growth for option 3 is at a level where it ought to be possible to avoid flood risk and/or implement suitable mitigation in the form of SUDs. The small amounts of growth in the outer settlements would also be unlikely to have major impacts with regards to downstream flooding or local surface water flooding. Therefore, **neutral effect** is predicted.

There is no additional growth proposed in these areas for options 1, 2 and 4, thus **neutral effects** are also predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

There is no additional growth for options 5 and 7, so **neutral effects** are predicted.

Option 6 has similar growth to option 3 in some settlements, but additional growth at others. Despite increases of growth at some settlements, it should still be possible to avoid flood risk, so **neutral effects** are predicted.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3), and therefore

## Water environment: Flooding

**neutral effects** are also predicted.

### New settlement:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 3 do not propose growth at a new settlement. Option 4 proposes 1,000 dwellings on a single strategic site, which has identified at Cotes.

Part of the site that forms the new settlement contains areas that fall within Flood Risk Zones 2 and 3; a small stream running through the site, as well as a small part of the River Soar flood plain. Despite this, the development of the site should be possible to accommodate without increasing flood risk. Not least, the large nature of the site (and relatively low number of homes involved) ought to allow for substantial green infrastructure and sustainable drainage systems to be incorporated. Whilst it ought to be possible to mitigate negative effects and secure enhancements, this shouldn't be presumed at this stage, and so an uncertain minor negative effect is predicted for Option 4.

#### Scenario B (Discussion of options for delivering 15,700 homes)

The effects for options 5 and 6 are **neutral**, as they involve no growth.

Option 7 proposes 1,500 dwellings at Cotes new settlement. Though this would reduce design and layout flexibility, there is still sufficient land to allow for buffers between development and areas of flood risk. The nature and scale of the site should also support natural drainage solutions as part of green infrastructure. Consequently, the potential for negative effects is still considered to be minor and potentially avoidable.

#### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Option 1 is predicted to have a **minor negative effect** overall. This is mainly attributable to several sites potentially being developed in Loughborough and the Leicester Urban Area that contain areas at risk of flooding. The large focus of growth in these locations could also be more likely to contribute to changes in hydrology. The uncertainties recorded reflect the likelihood that impacts could be avoided through site choice, layout and design.

Options 2 is predicted to have a **minor negative effect** overall. This is mainly attributable to several sites potentially being developed in Shepshed and the Leicester Urban Area that contain areas at risk of flooding. The large focus of growth in these locations could also be more likely to contribute to changes in hydrology. The uncertainties recorded reflect the likelihood that impacts could be avoided through site choice, layout and design.

Option 3 is predicted to have **neutral effects**. The spread of growth across the borough should allow for areas at risk of flooding to be avoided in the main. The more dispersed nature of growth should also lead to less pressure on drainage infrastructure in any one location. Though there are minor negative effects at Shepshed for Option 3, these are uncertain and the overall picture is neutral.

Option 4 is predicted to have **potential minor negative effects** due to the presence of flood risk at development locations in the Leicester urban area and at the new settlement. However, it is probable that such effects could be avoided or mitigated, hence the uncertainties recorded.

Options 5, 6 and 7 are all predicted to have **minor negative effects** with regards to flooding. This is largely due to the overall increase in growth which would be more likely to affect surface water run-off / drainage and the need for waste water treatment upgrades. With regards to development being located in areas of flood risk, it should still be possible to avoid flood zones 2/3 in the main, but higher growth in some locations may bring homes into closer proximity to flood plains. This could be more of an issue in Loughborough for Option 5, at Quorn and Rothley for Option 6 and at Cotes new settlement and the Leicester urban area for Option 7. Though the effects are more likely to be negative at this scale of growth, mitigation should still be possible, and so significant effects are unlikely.

The Hybrid Option is predicted to have **neutral effects**. The spread of growth across the borough should allow for areas at risk of flooding to be avoided in the main. The relatively dispersed nature of growth should also lead to less pressure on drainage infrastructure in any one location. Though there are minor negative effects at Shepshed, these are uncertain and the overall picture is neutral.

## Water environment: Flooding

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	_?	0	_?	0	0	_?
Option 2: Urban Concentration B	0	0	_?	_?	0	0	_?
Option 3: Settlement Hierarchy Distribution	0	0	_?	0	0	0	0
Option 4: Urban Concentration / New Settlement	0	0	0	_?	0	_?	_?
<b>Hybrid Option</b>	0	0	_?	0	0	0	0
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	_?	-	_?	_?	0	0	-
Option 6: Dispersed Settlement Hierarchy Distribution	_?	_?	_?	_?	0	0	-
Option 7: Urban Concentration / New Settlement	_?	0	_?	-	0	_?	-

## Land: Soil resources

## Land: Soil resources

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

At each of the service centres, site options are predominantly at the urban fringes and would therefore involve the loss of agricultural land in most cases.

Option 1 involves the lowest amount of growth for the Service Centres (600 dwellings).

In Sileby, providing approximately 100 dwellings, could involve a loss of up to 4ha of land, which would most likely be grade 2 land, given its prominence in this location.

At Anstey, accommodating 100 homes would similarly involve a loss of up to 4ha but grade 2 land could be avoided given that there are site options involving grade 3 land..

At Rothley, a similar amount again could be lost (4ha), and this would be grade 2 or grade 3 land dependent upon the sites involved.

For Barrow upon Soar, a similar loss would be expected (4ha of grade 2 land).

There would be limited loss of agricultural land at Mountsorrel as there are site options that do not contain best and most versatile land.

At Quorn, there could also be some loss of grade 3 land, but there are sites that are not agricultural in nature that could be developed.

Overall, the total loss of agricultural land under option 1 could be up to 20ha, with at least half likely to be grade 2. Whilst any loss of agricultural land is considered to be negative from a soil resources perspective, the effects are predicted to be **neutral** as the magnitude of effects is small in the context of resources at a borough scale.

Option 4 involves almost double the amount of growth in the service centres compared to option 1 (except for Mountsorrel, which is the same). Given the need for additional land for development, the loss of agricultural land could be approximately 35ha in total. Again, this would be a mix of grade 2 and 3. The majority of land at Sileby is grade 2, and so a further land could be lost here. At Barrow, a similar loss would be expected, but it could be a mix of grade 2 and 3. Further grade 3 land could also be lost at Anstey, and similarly at Rothley (grade 2 and 3). Despite the greater amount of land that would be lost, this could still be limited to mostly grade 3 land, and is still modest with regards to the overall loss. Therefore, **neutral effects** are predicted still.

Option 3 would involve further growth still at the service centres, with potentially 50 ha being affected in total. The effects are predicted to be a **minor negative** given **the unavoidable loss of Grade 2 land in particular**. From a borough wide perspective, the effects are still not significant though, and would also be unlikely to have major impacts on agricultural economies associated with farmland at the service centres.

Option 2 would deliver 2,100 dwellings across the service centres, which is more than three times the amount for option 1. Wherever this additional growth is delivered, it is likely to lead to further loss of agricultural land. Given the quantum and quality (large amounts of grade 2) of land likely to be lost, a **significant negative effect** is predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

All three options are predicted to have **significant negative effects** due to the scale of loss, and the greater likelihood that grade 2 land would be lost too. Options 5 and 7 in particular could lead to the loss of over 100ha of agricultural land.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. a **neutral effect**)

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

There are a number of options in the urban area of Loughborough that could accommodate a proportion of new growth under each of the options. This would help to avoid the loss of agricultural land and it is assumed brownfield sites would be maximised as part of the spatial strategy.

However, to meet the required housing targets under each option, there would be a need to release greenfield land on the fringes of Loughborough.

## Land: Soil resources

For option 2, which involves the lowest level of growth, the amount of greenfield release would be minimal. The effects are therefore predicted to be **neutral**. Options 3 and 4 propose a greater amount of growth (2,000 dwellings) which will require the release of greenfield land and of the best and most versatile agricultural land.

There would still be some flexibility in site choice though, and so grade 3 land could be targeted rather than grade 2. Overall, a **minor negative effect** is predicted for options 3 and 4. There could be a loss of approximately 35ha of agricultural land.

Option 1 will deliver the most growth in Loughborough compared to the other options. This would necessitate the need for further land take, of which a greater amount would be likely to be grade 2 agricultural land. A **significant negative effect** is predicted, given the higher overall loss and the proportion of higher quality land that will be lost. Up to 100ha of best and most versatile land could potentially be lost.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 would involve substantially more growth compared to options under scenario A. Option 7 would require land for 3,300 dwellings and is also likely to require grade 2 and 3 agricultural land. Growth at these scales would result in the loss of over 100ha of the best and most versatile agricultural land, which is a **significant negative effect**.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor negative effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

The urban area of Shepshed includes many sites that could accommodate a proportion of new growth under each of the options. There is also non-agricultural land outside the urban area in Shepshed that could accommodate growth. This would avoid the loss of agricultural land and it is assumed brownfield sites would be maximised as part of the spatial strategy. However, as discussed above, to meet the required housing targets under each option, there would be a need to release greenfield land on the fringes of Shepshed.

For option 1, which involves the lowest level of growth in these areas, there ought to be greater flexibility in the choice of sites. There may be enough sites in the urban area and on non-agricultural land to deliver this option. The effects are therefore predicted to be **neutral**. Options 3 and 4 propose additional growth (1,200 – 1,500 dwellings) which will require some uptake of agricultural land. However, grade 2 agricultural land could be avoided in favour of grade 3. Approximately 25 ha of land could be affected, which is a **minor negative effect**.

Option 2 would require greater uptake of the grade 2 and 3 agricultural land to the west of Shepshed, but would still be unlikely to lead to a loss of greater than 60ha. Therefore, **minor negative effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 would all involve more growth compared to options under scenario A. A greater uptake of the best and most versatile agricultural land would therefore be required, which is recorded as a **significant negative effect**.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. **Minor negative effects** are therefore predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 and 2 involve approximately 3000 dwellings. Presuming this consists of a mix of urban sites (i.e. within Thurmaston) and sites on the urban fringe (at Thurmaston, Birstall and adjacent to the A630 for example) and at Syston (a mix of urban and mostly greenfield sites), there would be a potential loss of agricultural land classified mostly Grade 3 land. Site opportunities adjacent to Thurmaston consist of approximately 27ha of grade 3 agricultural land.

## Land: Soil resources

This could be lost to development. Similarly, 20 ha of land adjacent to the A630 is classified as grade 3 (though this doesn't appear to be in agricultural use and may not be best and most versatile. Approximately 55 ha of land could also be lost in Syston of either grade 2 or 3 land. Overall, approximately 60-70ha could be lost, with the majority being Grade 3 land. This could be higher though should the brownfield sites in the urban area not be found to be deliverable. This is considered to be a **minor negative effect**.

Option 3 delivers much fewer dwellings, and would therefore be much less likely to lead to the loss of agricultural land. Given that some of the land could be met in the urban area of Birstall and Thurmaston on non-agricultural land, the total loss of grade 3 land would likely be less than 15 ha. Therefore, a **neutral effect** is predicted.

Option 4 also delivers fewer dwellings but would still require substantial agricultural land including Grade 3 (approximately 50ha). However, some sites most suited for agricultural use and of the best quality may be avoided (in comparison to options 1 and 2). A **minor negative effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve similar growth as options 1 and 2, and therefore the effects are the same (**Minor negative**). Option 7 includes an additional site north-east of Thurmaston in addition to the majority of available sites in options 5 and 6. The site in its entirety consists of grade 2 and 3 agricultural land. At this scale of growth, a potential **significant negative effect** is predicted.

### Hybrid Option (7,800 homes in total)

This approach involves some loss of agricultural land, but like options 1, 2 and 4, the effects are only minor.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

The majority of 'other settlements' fall within the countryside / rural parts of the Borough. Therefore, the majority of land available for development is classified as either grade 2 or grade 3. An even split across the settlements (with the exception of Swithland), there would be some loss of agricultural land in most of the settlements. In some settlements, the loss would predominantly be of grade 3 land (Barkby, Burton on the Wolds, Seagrave, Thurmaston, Woodhouse Eaves, Wymeswold, Thrusington and Hathern), whilst at others it predominantly would likely be grade 2 (Cossington, East Goscote, Queniborough and Rearsby). It should be noted that several sites in Queniborough and East Goscote are not agricultural in nature. In total, up to 40ha could be affected, but the majority would be grade 3 (which may or may not be best and most versatile land). Given the low magnitude of land likely to be lost, and most of this being grade 3 land, **neutral effects** are predicted for option 3. All other options are also predicted to have **neutral effects** given that there is no growth involved.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 are predicted to have **neutral effects** as there is no growth proposed. Option 6 could result in the loss of approximately 65ha of mostly grade 3 land. A **minor negative effect** is predicted, as a greater amount of agricultural land will be lost. However, as Grade 2 land could be largely avoided, the effects are not predicted to be significant.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3), and therefore **neutral effects** are also predicted.

### **New Settlement:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

For options 1, 2 and 3, **neutral effects** are predicted, as these do not involve a new settlement and so agricultural land will not be affected.

The new settlement area falls within the countryside and on land that is classified as grade 2 agricultural land. Therefore, for option 4, development could result in the loss of approximately 40ha of grade 2 land to accommodate the amount of housing growth proposed. As well as land required for housing, there would also be a need for land to accommodate associated uses such as schools and a local centre.

## Land: Soil resources

A **minor negative effect** is predicted for option 4, as whilst some best and most versatile agricultural land will be lost, this would not be significant in the context of borough resources.

### Scenario B (Discussion of options for delivering 15,700 homes)

No growth is proposed for options 5 and 6. Option 7 would result in the loss of approximately 60ha of grade 2 agricultural land. The scale of growth is such that additional land will be required for associated uses such as local shops, schools and community facilities. Given that a large amount of grade 2 land would be lost, the effects are considered to be **significant**.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Each of the options involve a loss of agricultural land in different locations, but the overall picture is that a substantial amount of agricultural land is likely to be lost regardless. As a consequence, each option is predicted to have **significant negative effects**.

With this being said, certain options do perform less favourably with regards to the total amount of land that would be lost, and the grade of land.

Under Scenario A, the effects are most prominent for option 2 for example, which would involve a greater loss of Grade 2 agricultural land overall. The loss of agricultural land under option 1 is significant at Loughborough, but elsewhere, the loss is limited. Though still significant, the effects of this option are less negative compared to option 2. Options 3, 4 and the hybrid option do not give rise to substantial loss in any one location, but do create negative effects in a wider range of settlements.

For scenario B, all of the options would involve greater loss compared to Scenario A, with a greater loss of Grade 2 land also. Option 7 performs the worst overall as the extents of effects across the borough are more prominent.

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	--	0	-	0	0	--
Option 2: Urban Concentration B	--	0	-	-	0	0	--
Option 3: Dispersed Settlement Hierarchy	-	-	-	0	0	0	--
Option 4: Urban Concentration / New Settlement	0	-	-	-	0	-	--
Hybrid Option	0	-	-	-	0	0	--
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	--	--	--	-	0	0	--
Option 6: Dispersed Settlement Hierarchy	--	--	--	-	-	0	--
Option 7: Urban Concentration / New Settlement	--	--	--	--?	0	--	--

## Air quality

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Existing services and road networks would be used to support much of the development in the service centres, with the level of growth involved in individual settlements not likely to require strategic infrastructure upgrades. Though increased growth could contribute to traffic and congestion along routes into Leicester and Loughborough, the effects on air quality locally are not likely to be significant due to the spread of development and the absence of air quality management areas (AQMA) or areas of concern at the service centres. These areas are also fairly well served with regards to public transport, and so the potential to mitigate increased growth by supporting modal shift also exists. Consequently, each of the options is predicted to have **neutral effects** with regards to air quality in the service centres.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth, air quality is still not anticipated to be significantly affected in the service centres themselves, but could lead to a worsening of quality in town centres due to increased traffic, congestion and car usage. Furthermore, the overall increase in housing would lead to increased car trips, which could contribute to air quality issues in more sensitive areas such as Loughborough and Leicester City. For options 5 and option 7 a potential **minor negative effect** is predicted, with an **uncertain negative effect** for option 6 which involves a lower level of growth compared to options 5 and 7 (but still higher than options 1-4).

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. a **neutral effect**)

### Loughborough:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Data for Loughborough from 2015 indicates that there has been a significant reduction in the concentration of NO<sub>2</sub> levels around the town centre since the opening of the Inner Relief Road in November 2014<sup>16</sup>. The AQMA however still remains within Loughborough (Nitrogen Dioxide (NO<sub>2</sub>)) and there is potential for this area to be worsened by concentrated development resulting in more congestion and car journeys. The AQMA around the railway station is particularly sensitive to being affected.

For option 2 which involves relatively lower levels of growth, development could be contained mostly within the urban areas, and therefore, the need to travel would be somewhat reduced. Therefore, neutral effects are predicted.

Option 1 is most likely to have effects on air quality due to the higher concentration of growth in and around Loughborough. It may be possible to secure infrastructure improvements for larger developments to the south of the settlement. Furthermore, Loughborough has good public transport links, which could help to reduce the increase in car trips associated with new development. Nevertheless, potential **significant negative effect** is predicted.

Options 3 and 4 involve a relatively low amount of growth compared to the existing built up area of Loughborough, and so impacts on air quality (whilst negative) are not likely to be significant.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At a higher scale of growth, there would be a need to release the majority if not all available sites, which could lead to increased trips to, from and through Loughborough. This could lead to worsening air quality, possibly in AQMA. Consequently, an **uncertain significant negative effect** is predicted for Option 5.

The extent of this would depend on site access and infrastructure enhancements that would be delivered to support growth to the south of the settlement. This may very well act as a direct link to the M1 and / or the A6.

The potential to secure strategic road improvements might help to reduce air quality pressures, but this has not been factored into the assessment given that there are no specific schemes planned.

<sup>16</sup> LAQM Annual Status Report 2016 – Charnwood Borough Council

## Air quality

Option 6 would involve 550 fewer dwellings than option 5, which would reduce the potential for negative effects somewhat. Nevertheless, the scale of growth is still relatively high and is likely to lead to additional traffic through Loughborough. Consequently, an **uncertain significant negative effect** is predicted.

Option 7 would involve lower levels of growth compared to options 5 and 6 and so a **minor negative effect** is predicted.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor negative effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 involves a relatively low level of growth which could be accommodated in the urban area. It is therefore unlikely that notable effects on air quality would be generated. **Neutral effects** are recorded.

Option 2 involves substantial growth at the periphery of Shepshed. This could lead to some increase in traffic into and through the town centre. However, the location of development sites would mean that new development has access to strategic routes without having to pass through the town centre. For example, access along Tickow Lane to Ashby Road West. Consequently, **minor negative effects** are predicted.

Options 3 and 4 involve lower levels of growth compared to Option 2, which reduces the potential for negative effects somewhat. Consequently, uncertain **minor negative effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

All three options involve similar or slightly higher levels of growth to option 2. Consequently, **minor negative effects** are predicted.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. **Minor negative effects** are therefore predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Travel into and out of Leicester often suffers peak time congestion along the main arterial routes. This is highlighted by the AQMA in Syston (NO<sub>2</sub>), and within Leicester City itself. Increased development at the urban periphery is likely to increase traffic along these routes, which could impact upon air quality in these areas. Monitoring data suggests that annual mean objective of 40µg/m<sup>3</sup> is not close to being exceeded in Syston, or in locations around the LUA. Therefore, whilst the level of increased growth involved could lead to a worsening of air quality, the effects would not be expected to be significant for lower levels of growth such as those being proposed for these options.

A **minor negative effect** is predicted for options option 1, option 2 and option 4. For option 3, a **neutral effect** is predicted as the amount of growth focused in these areas is much lower.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve a similar growth as options 1 and 2 and therefore **minor negative effects** are predicted. Option 7 involves a slightly higher level of growth, than options 5 and 6 and so the effects are more likely to occur but it is still not at the scale that the effects of air quality would likely be significant, therefore **minor negative effect** is predicted.

### Hybrid Option (7,800 homes in total)

The level of growth involved (2000 homes) is closest to option 4 (which is for 2500 dwellings). The effects are therefore predicted to be similar (but to a lesser magnitude). A **minor negative effect** is predicted.

## Air quality

### Other settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Given the more rural nature of some of the 'other settlements' growth in these locations is likely to increase the number and length of car trips. However, the dispersed nature of growth and lack of existing air quality issues in these settlements means that significant effects upon air quality would not be anticipated in these areas. **Neutral effects** are predicted for options 1-4, though it is possible that growth in these areas could contribute to traffic along major routes.

Option 3 would involve growth at the small villages, there is no growth in the small villages under options 1, 2 and 4. Therefore, **neutral effects** are predicted for all other options under this scenario. The level of growth under option 3 would be low in the context of overall development across the borough. Though this is likely to encourage car trips, the effects on air quality would be **neutral** as new homes would not be placed in sensitive areas or generate significant emissions.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Despite a higher level of growth at the other settlements under option 6, the effects are still predicted to be **neutral**. Options 5 and 7 do not involve growth in these settlements, therefore, **neutral** effects on air quality are also predicted.

#### Hybrid Option (7,800 homes on total)

The level of growth involved at the other settlements would be relatively low (lower than option 3), and therefore **neutral effects** are also predicted.

### New / expanded settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Only option 4 proposes development at a new settlement in Cotes. New development here would need to include accessible services, a well-designed infrastructure network and effective public transport to ensure that car journeys are minimised and that congestion into the main towns in the Borough and surrounding areas is minimised. However, it is possible that **minor negative effects** could be generated on air quality given that there would be concentrated development in a location that would likely lead to higher levels of traffic on routes towards Loughborough. The scale of growth would not generate significant negative effects though.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Only option 7 proposes a new / standalone settlement. Though it involves 500 more dwellings compared to option 4, **minor negative effects** are predicted also, as the scale of growth would be unlikely to lead to significant effects locally (as air quality is not an issue), or substantially change background levels in Loughborough.

#### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Option 1 focuses growth mainly at Loughborough and the LUA. Growth in these areas could both potentially affect air quality in AQMAs by increasing traffic and congestion in the urban areas. The baseline air quality would remain similar across much of the Borough, but could potentially worsen in Loughborough in particular. Given that this is where the majority of air quality issues are experienced, a **potential significant effect** is predicted from a borough-wide perspective. Securing transport infrastructure improvements could help to minimise these effects though, but this has not been fully accounted for at this stage given a lack of definite schemes.

Option 2 shows a similar pattern of development as option 1, with a concentration around the LUA, but more growth is diverted to Shepshed and the Service Centres rather than all towards Loughborough. This is likely to lead to less pressure on the AQMAs at Loughborough, and so effects here are likely to be lower.

The effects in the Service Centres are not expected to be significant, but growth here could still generate trips to and from areas of greater sensitivity such as Leicester and Loughborough. A **minor negative effect** is predicted

## Air quality

overall.

Option 3 takes a proportionate approach which should enable a more even spread of development throughout the Borough. This approach would lead to the lowest level of growth at the LUA, and so effects here could be better avoided (though there would still be car trips towards the City from a range of settlements across the borough.

Neutral effects are predicted with regards to the air quality in the majority of areas, but there are potentially negative effects in the Loughborough / Shepshed area. Despite there being less of a focus in any one area, increased traffic and patterns of travel could still contribute to air quality issues in more sensitive locations. An **uncertain (minor) negative effect** is predicted overall.

Options 4 involves a dispersed approach, but also involves a standalone settlement at Cotes. The overall level of growth to the 'north' of the borough at Loughborough, Shepshed and Cotes could potentially lead to negative effects on air quality within Loughborough. However, it is unlikely that the combined effects would be significant. Overall, a **minor negative effect** is predicted.

Options 5 and 6 both propose higher levels of growth to Loughborough. This would lead to an increase in traffic, which could potentially affect air quality. Though the inner link road has reduced air quality problems in the centre somewhat, it is unclear whether the additional level of growth could be accommodated without a worsening of air quality. Combined with the additional growth at Shepshed, **potential significant negative effects** are predicted for both options.

For option 7 the negative effects are likely to be generated with regards to air quality in Loughborough, which could attract additional trips from development nearby, at Shepshed, and a new settlement. The level of growth in and around the LUA is also the highest of any option, and therefore impacts in these areas could potentially be greater. Overall, there is potential for **significant negative effects**.

The hybrid option performs similar to option 4, in that it could generate minor negative effects on air quality in the locations of Loughborough / Shepshed and the Leicester Urban Area. However, there would be no effects recorded at a new settlement (as per option 4). The minor effects that would occur in Loughborough and Shepshed would not be anticipated to combine to generate a more significant effect in this part of the borough.

	Service centres	Loughborough	Shepshed	LUA	Other settlements	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	--?	0	-	0	0	--?
Option 2: Urban Concentration B	0	0	-	-	0	0	-
Option 3: Dispersed Settlement Hierarchy	0	-?	-?	0	0	0	-?
Option 4: Urban Concentration / New Settlement	0	-?	-?	-	0	-	-
<b>Hybrid Option</b>	0	-?	-	-	0	0	-?
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	-?	--?	-	-	0	0	--?
Option 6: Dispersed Settlement Hierarchy	-	--?	-	-	0	0	--?
Option 7: Urban Concentration / New Settlement	-	-	-	-	0	-	--?

## Climate change

### Overall effects

The ability to deliver resource efficient and resilient developments ought not to be dependent upon location to a great extent. Therefore, the distribution of homes should have the same effects on emissions from the built environment regardless of location. Development in any location should also provide opportunities to introduce resilience measures such as green infrastructure, green roofs and SUDs. For this reason, effects at a settlement level have not been determined.

The effects of each option within scenario A (including the hybrid option) on emissions (from the built environment) are predicted to be neutral; as such growth might be expected to occur anyway in the absence of the plan (albeit in a less strategic manner). For scenario B, the level of growth is much higher, and thus the overall emissions on the Borough may be expected to increase (though this could correspond in a decrease elsewhere).

Location can however, lead to differences in the amount of emissions from transport, and certain locations or types of sites (larger mixed-use with demands for heat) may also be more likely to support decentralised energy schemes. These factors are discussed below with regards to each option. The effects have not been broken down by different levels of the settlement hierarchy, as impacts in one area could offset those in another. Therefore, it is more appropriate to discuss the overall implications at a borough level for each option with regards to emissions and resilience. It should also be acknowledged though that the impacts within the Borough are interlined with those in surrounding areas, as climate change is a cross boundary issue.

*Option 1* focuses the majority of growth in Loughborough and the principal urban area. Both these locations have good access to jobs, services and public transport. Therefore, new development should be less likely to generate long car trips (and associated emissions). This option would also not lead to further growth in less accessible locations. Whilst there is no solid evidence to support decentralised energy schemes, the scale of some site options in Loughborough, and the higher heat demand in the urban area could make these locations more suitable for such schemes.

Larger site options may also be more appropriate for delivering strategic green infrastructure improvements, which can help with climate change resilience for wildlife and for human health. This could be particularly beneficial for more built up areas such as Loughborough, Shepshed and Syston, in terms of helping to reduce a potential heat island effect. Consequently, a **minor positive effect** is predicted.

*Option 2* still focuses a large proportion of growth to the LUA, but slightly less to Loughborough and more to Shepshed, whilst including growth at the service centres. Whilst access to services, facilities and jobs are more accessible in Loughborough compared to the service centres; these settlements still offer reasonable accessibility. Therefore, anticipated trips by car ought not to be significantly higher compared to Option 1. With regards to the baseline position, the changes are likely to be minor.

With regards to resilience, growth at some of the service centres would be on smaller scale sites, and so strategic improvements may be more difficult to secure. The lower demand for heat and the smaller scale of sites could also make decentralised energy opportunities less feasible. Consequently, the **minor positive effects** are more uncertain.

*Option 3* disperses growth further, with slightly less development at Loughborough and the service centres, but more at 'other settlements' at a lower level of the settlement hierarchy. Given that some of these settlements have poorer access to services, facilities and public transport, this option is more likely to lead to an increase in car trips and associated emissions. The opportunities for strategic resilience measures or low carbon energy schemes are also likely to be more limited for the smaller-scale site options at these settlements. On balance a **neutral effect** is predicted. In the absence of a Plan, one might expect some growth at different levels of the settlement hierarchy anyway. This option would not lead to substantial differences in travel pattern and emissions compared to the baseline situation.

*Option 4* would see the majority of the growth at the LUA, Loughborough and Shepshed, but also at a new settlement. Directing the majority of the growth to areas such as the LUA, Loughborough and Shepshed ought to be positive with respect to a reduction in emissions from transport (given that they are relatively well serviced by public transport. The service centres will only have a small increase in growth, which is likely to result in neutral effects. The new standalone settlement is not well serviced by public transport, and therefore could promote car travel. However, it is likely that public transport would need to be secured to demonstrate that a new settlement here is sustainable. Overall for option 4 **uncertain positive effects** are predicted.

Options 5, 6 and 7 all involve a higher level of growth overall across the borough. This would be expected to lead to an increase in emissions relating to the built environment and transport (purely due to an increased amount of house building). However, the emissions could offset growth that would occur outside the borough, or simply mean that emissions are increased in the short term, but lower in the longer term. In respect of the plan period though and within Charnwood, this constitutes a minor negative effect for each option. It should be noted

## Climate change

however, that new developments are likely to be of a higher standard with regards to resource efficiency, and so the net emissions per capita ought to shift over the longer term.

Options 5 and 6 involve a higher amount of growth at Loughborough, Shepshed and the Service Centres in particular. Loughborough and the service centres are well serviced by public transport, which should help to minimise any increases in emissions from transport. At an increased scale of growth, the opportunities for decentralised energy schemes could potentially increase too, but there is considerable uncertainty. On balance, a **minor negative effect** is predicted for both options.

Option 7 also involves increased growth in Loughborough/Shepshed, and the Service Centres, but at a lesser extent compared to Options 5 and 6. The balance of growth is mostly at a new settlement of a higher scale. Similar to options 5 and 6, growth would be likely to have minor negative effects in relation to increased emissions. A new settlement of this size could potentially offer opportunities for decentralised energy, but again uncertainties exist. On balance, **minor negative effects** are predicted.

For the hybrid option, the bulk of growth is located at Loughborough, Shepshed and the Leicester Urban Area (6000 out of 7800 homes). These locations have excellent access to public transport and are well located in relation to employment. Therefore, the length of trips ought to be relatively short, and there would be options to use public transport. From a transport emissions perspective, this is a positive effect.

Whilst there is no solid evidence to support decentralised energy schemes, the scale of some site options in Loughborough, and the higher heat demand in the urban area could make these locations more suitable for such schemes.

Larger site options may also be more appropriate for delivering strategic green infrastructure improvements, which can help with climate change resilience for wildlife and for human health. This could be particularly beneficial for more built up areas such as Loughborough, Shepshed and Syston, in terms of helping to reduce a potential heat island effect. Consequently, a **minor positive effect** is predicted.

Despite a smaller amount of growth being located in the smaller settlements, the increase in emissions associated with new homes here would be offset by the benefits described above.

	Service centres	Loughborough/Shepshed	LUA	Small villages	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>						
Option 1	/	/	/	/	/	+
Option 2	/	/	/	/	/	+
Option 3	/	/	/	/	/	0
Option 4	/	/	/	/	/	+ <sup>?</sup>
Hybrid Option	/	/	/	/	/	+
<b>Scenario B - 15,700 homes</b>						
Option 5	/	/	/	/	/	-
Option 6	/	/	/	/	/	-
Option 7	/	/	/	/	/	-

## Historic Environment

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

As a general point, growth throughout the Soar Valley is likely to have greater potential to affect areas of possible archaeological importance, as these locations are where human activity has been focused. In terms of effects on the historic built environment, this varies for each settlement.

At **Barrow-upon-Soar**, none of the site development options are in locations that should lead to significant effects upon the character of the settlement or any historic assets. However, several of the sites are not logical extensions to the urban area, so could affect the feel of the urban fringes. Where an open countryside is important to the setting of heritage assets such as farm buildings, these changes could be detrimental.

For options 1-4 the level of growth involved would be a maximum of 400 dwellings. There should be sufficient scope to accommodate such growth in a sympathetic way given the choice and location of sites. Therefore **neutral effects** could be anticipated.

At **Quorn** there is sufficient development capacity in non-sensitive locations alongside the A6. These could accommodate the level of growth involved without generating negative effects. However, there are also site options to the south of the urban area which are within/adjacent to the Conservation Area. Should these sites be developed, the potential for **minor negative effects** would be higher for Option 2 in particular (which involves the highest level of growth under scenario A). This is an uncertainty at this stage though. There are a variety of site options in **Sileby**. Effects upon cultural and natural heritage would be dependent upon which sites were developed. There are sizeable development opportunities at the urban fringe that ought to be possible to deliver without having a negative effect upon the character of the settlement. However, those sites that are better located with regards to access to facilities and services are located in close proximity to the Conservation Area and a number of listed buildings. Should the strategy involve these sites, the potential for effects is higher, but still unlikely to be significant. At lower levels of growth such as for options 1 and 4, the effects are more likely to be **neutral**, but they could be **minor negative effects** at the higher levels of growth such as for option 2.

At **Rothley**, the potential for negative effects is broadly greater when compared to the other service centres, as development could cut into Rothley Park, which provides the setting for a range of historic assets. Development would also be within the Charnwood Forest area (though at the outer edges of the defined area). There are other development opportunities, such as at Woodcock Farm, but this could negatively affect the setting of a listed building (Woodcock Farm Barn).

For options 2 and 3, the level of growth required would be higher, and so a **minor negative effect** is likely, as it would be necessary to involve sites in more sensitive locations. However, appropriate densities and mitigation should still be possible to ensure significant effects are avoided. For options 1 and 4, the effects are more likely to be **neutral** but cannot be ruled out given that several of the site options could give rise to effects. Therefore, the effects are uncertain.

For **Anstey**, growth opportunities could potentially sit to the west / south west of the Conservation Area, affecting the open nature of this area. Development here could potentially have minor negative effects, but could probably be avoided at lower growth options. Other site options on the urban fringe would involve extensions to suburban residential areas, which are not particularly sensitive with regards to the historic environment. Small scale extensions in this area (to the south of Anstey) should be possible to accommodate without generating significant effects. Each of the options involves less than a total of 400 dwellings, so it should be possible to avoid negative effects.

**Overall**, the effect on the service centres is not predicted to be significant for any of the options. Options 2 and 3, which propose the most growth in these settlements, have the potential for negative effects at Quorn, Rothley and Sileby. However, avoidance of sensitive areas would be possible. Overall, a **minor negative effect** is predicted for these options. Option 1 and 4 (to a lesser extent) would allow for growth to be delivered at suitable locations and densities to allow for negative effects to be avoided in most of the service centres. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 involve more growth in the service centres compared to the options for scenario A. In particular, Options 5 and 7 would lead to relatively large amounts of development. For Rothley, it would be necessary to develop in the Charnwood Forest area, and also on a site where a listed building would be affected. In Barrow, development could be accommodated without directly affecting the historic environment, but the settlement form would change considerably.

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At Sileby, the effects would be similar, but there would also be areas involved within close proximity to the Conservation Area.

At Anstey, the degree of change required would reduce the potential for sensitive development, and though heritage assets could be protected, there would be a change to the character of the settlement. Overall, the potential for **significant negative effects** increases for options 5 and 7, but this is still not a certainty, and would more likely involve effects on the settlement form rather than on the condition or setting of designated heritage assets. There is therefore a degree of uncertainty. For Option 6, the level of growth is still such that only **minor negative effects** would be anticipated overall.

### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. a **neutral effect**).

## Loughborough

### Scenario A (Discussion of options for delivering 8,100 homes)

For each of the options, it is likely that there would be maximisation of brownfield sites in the urban area.

There are several sites that fall within or adjacent to the Conservation Area and/or contain listed buildings. At some sites, it ought to be relatively easy to avoid harm to the historic environment, and perhaps achieve enhancement (for example, 45-54 Pinfold Gate falls within a site option, but this frontage could be retained and the surrounding built environment improved). There are sites adjacent to Conservation Areas that do not add to their character, and redevelopment ought to improve the built environment (for example, site options at Lemington Street, Land at True Lovers Walk / Frederick Street, Station Avenue, Leicester Road/Aumberly Gap). At other sites though, there could be potential negative effects on heritage that are difficult to avoid (for example; Rosebury School site - which could involve the loss of a listed building, or Land off Leicester Road – which could change the open nature of Loughborough Chapels). Overall, the effects in the urban area of Loughborough are anticipated to be **neutral**. The growth proposed in option 2 can likely be achieved through sites in the urban area. There may be some minor negative effects at certain sites, but positive effects / enhancements at others.

Options 3 and 4 would likely require site options to the south of Loughborough. The potential for effects therefore is somewhat higher, as there are a number of heritage assets close to the Charnwood Forest. Development here would likely change the setting of these assets. For options 3 and 4, it may be possible to avoid the most sensitive locations through site choice / location and / or lower density development. Therefore, only **minor negative effects** are predicted at this stage. For Option 1, the scale of growth is much greater and so the extent of development to the south would be greater. This would affect the open nature of the area more substantially, and is therefore more likely to have significant negative effects upon the setting of heritage assets (there are several listed buildings at the urban fringes and within the Charnwood Forest itself).

A **significant negative effect** is predicted at this stage for Option 1, though there is potential for this to be avoided dependent upon the nature of development.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 would also require site options to the south of Loughborough. For Option 5, the extent of additional housing required would reduce opportunities to minimise effects, and so **significant negative effects** are likely. For Option 6, the amount of growth is slightly more compared to Option 1, but the overall effects are broadly the same (i.e. a **significant negative effect**). For Option 7, the level of growth is lower than Option 1 and so the potential for significant negative effects ought to be slightly lower, but still exists.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor negative effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

The sites available for development do not contain nor are adjacent to designated heritage assets. Development here would not be expected to affect the setting of more distant heritage assets, either as they are relatively well

## Historic Environment

screened or have no major bearing on the character of the area.

The scale of growth involved for option 1 would necessitate a more limited scale of growth which would lead to fewer changes to the character of the urban fringes. Effects are predicted to be **neutral**.

For options 2, 3 and 4, there would be a much higher level of development involved, likely including large and medium-sized sites to the west of Shepshed. Despite the scale of growth however, it is not anticipated that development would have significant effects, as there are few designated or locally important heritage assets in these areas. **Neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 all involve further growth (300 – 450 additional homes) compared to Option 2 (which is the highest growth option under Scenario A). The broad location of development would likely remain the same, but could potentially be more widespread, or of a higher density. Therefore, the potential for negative effects on the form of the settlement are greater. With regards to historic assets, the effects are still unlikely to be significant, but **potential minor negative effects** are identified.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. **Neutral effects** are therefore predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Effects of development in Thurmaston and Birstall are predicted to be neutral. The site options are either industrial in nature, or on the edge of established housing estates. Neither contains important heritage assets, nor do they contribute positively to the character of the settlements. Likewise, site options adjacent to the A5630 are not likely to have effects upon the historic environment.

However, site options close to Hamilton Grounds Farm could have significant negative effects upon the Deserted village of Hamilton Scheduled Monument. An open rural setting can be important to Scheduled Monuments of this type, and thus development in this location (particularly on the adjacent site option) could alter its setting. For each of the options 1-4, this site could be avoided, but this would depend upon the majority of other sites being available and deliverable (so effects can't be entirely ruled out at this stage).

There are a mix of smaller scale site opportunities in the urban area of Syston, and larger greenfield site options to the urban fringes. Though some of the urban options fall within the conservation area it should be possible to secure sensitive design that brings about improvements to the built environment. For options 1, 2 and 4 there would also be a requirement to release land at the urban fringes. The scale of growth required should be possible to accommodate without having substantial effects on the character of Syston. However, some sites on the urban fringe of Syston include areas of archaeological interest which may be of value. It will also be important to avoid effects upon the settlement of Barkby, which could be affected by large scale development to the south of Syston if it is not carefully located and designed. For options 1 2 and 4, this presents the potential for negative effects.

Overall, a **neutral effect** is predicted for Option 3, as this involves a low level of growth that could be accommodated in non-sensitive locations.

For Options 1, 2 and 4, there are some parts of the urban area where effects would be neutral or potentially positive, but in Syston there could be effects on the character of the Conservation Area. If sites close to the Deserted Village of Hamilton were involved, the effects would likely be negative. However, it is uncertain whether these would be allocated, and so this is reflected in the overall effects being identified as **uncertain minor negatives**.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve a similar level of growth as options 1, 2 and 4. Therefore an **uncertain minor negative effect** is also predicted. Option 7 includes a large site north east of Thurmaston in addition to the growth in options 5 and 6. There is a grade II listed building and an area of archaeological importance adjacent to the site, but effects ought to be possible to avoid. However, the large scale nature of the site could have impacts upon the character of the Thurmaston Conservation Area. A **minor negative effect** is therefore predicted for Option 7.

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### Hybrid Option (7,800 homes in total)

Similar to Options 1, 2 and 4, this approach could have neutral or positive effects in terms of the built environment throughout Birstall / Thurmaston. It is considered unlikely that sites would be brought forward that would affect the Deserted Village of Hamilton, especially as the Hybrid Option involves lower levels of development than options 1, 2 and 4. Therefore, neutral effects are predicted overall.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 involve no growth in the 'other settlements' and so **neutral effects** are predicted.

Modest growth at some of the other settlements ought to be accommodated without having significant effects upon the character of the settlements or the historic core. For example, site options in Queniborough are unlikely to lead to major changes to the approach to the settlement or having negative effects on historic features. Likewise, site options in East Goscote and Hathern should not be particularly sensitive to change.

At other settlements, the potential for effects is higher. For example, Thrussington as a relatively small settlement with a rural character could potentially be adversely affected by growth. The extent of the settlement would be increased, and this could affect approaches into the village. At higher scales of growth, significant negative effects could be generated.

At Wymeswold, development of sites could affect the rural 'feel' of approaches into the village along East Road and narrow Lane. Whilst low density, sensitive schemes could possibly be delivered, a change to the character of the settlement is likely (which could have adverse implications for the setting of heritage assets within the village and the character of the conservation area). Consequently, minor negative effects could be anticipated.

Most sites in Seagrave fall within an area of archaeological alert or interest and thus could hold historic significance.

There are several site options in Rearsby, and the effects would be dependent on those which were allocated. Potentially, the character of the Conservation Area could be affected at higher levels of growth.

At the smaller villages and hamlets, the potential to affect the character of settlements is likely to increase given their smaller size, rural nature and in some instances sensitive locations (for example Newton Linfield).

The majority of hamlets / small villages are designated as Conservation Areas and contain a number of listed buildings. Even a small amount of growth in these locations may alter the setting of the listed buildings as well as encroaching into the Conservation Areas (for example Woodhouse Eaves).

Overall, Option 3 is predicted to have a **minor negative effect**. Growth at the other settlements could be accommodated in the main, without having a significant effect upon settlements, if implemented sensitively on sites that have the least impact on the historic environment. The scale of growth proposed should allow some flexibility in the sites that can facilitate growth and thus avoid significant effects. In settlements where effects are highly likely due to the location and context of the sites, delivering low density and sympathetic design to emulate the rural feel of these settlements can reduce effects.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 involve no growth in the 'other settlements' and so **neutral effects** are predicted. The growth for option 6 is greater than that proposed in option 3 (scenario A) with an additional 800 dwellings to accommodate. In some locations, the additional amount would be unlikely to lead to negative effects, as there is sufficient site capacity in non-sensitive areas; this includes Queniborough and East Goscote. In other locations, such as Barkby, Newton Linford and Wymeswold, additional growth would be very likely to generate negative effect due to the scale of growth involved and the sensitivity of the villages to change. Therefore, **significant negative effects** are predicted overall.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). The potential for negative effects is therefore lower, and it is more likely that negative effects could be avoided. Consequently, **minor negative effects** are predicted, with a degree of uncertainty (i.e. they may not occur depending upon site choice and design).

## Historic Environment

### New settlement:

#### Scenario A (Discussion of options for delivering 8,100 homes)

The new settlement option (as proposed in option 4) involves growth at Cotes, a small village with several listed buildings and an adjacent Scheduled Monument (Cotes deserted medieval village). An application for a large scale mixed use development was submitted (P/13/1842/2) to the Council and Historic England considered that there could be substantial harm to the Scheduled Monument on the basis of the plans submitted. Though a new scheme here could be designed and laid out differently so as to reduce harm, the potential for negative effects clearly exists.

Overall, a **significant negative effect** is predicted, as there is evidence that development could cause substantial harm to heritage assets. A **neutral effect** is predicted for options 1, 2 and 3, as no growth is proposed.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 do not involve growth at the new settlement and therefore **neutral effects** are predicted. Option 7 involves addition growth at Cotes when compared to option 4 (scenario A), and so a **significant negative effect** is also predicted.

#### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Option 1 is predicted to have a **minor negative effect** from a borough-wide perspective. The scale of growth in service centres and Shepshed should avoid any adverse effects and there is no growth planned for other settlements or for a new settlement. Whilst the effects at the LUA could potentially be avoided (hence an uncertain negative effect), there could be significant negative effects in Loughborough both within the urban area and at the urban fringes. Nevertheless, the lack of effects in sensitive locations throughout the Soar Valley, and the potential to minimise effects in Loughborough means that the effects are not considered to be significant overall.

For option 2, an **uncertain minor negative effect** is predicted. Due to the scale of growth at the service centres, it might be difficult to avoid effects upon heritage assets in some settlements. There may also be greater potential to affect areas of archaeological value given past activity along the Soar Valley. The effects in Loughborough are less likely to be negative though (compared to option 1), but there is some uncertainty for the LUA. No other notable effects are likely across the borough, and so the implications of this option in this context are considered to be minor (and potentially avoidable).

Option 3 proposes lower growth in the LUA, which would mean that negative effects here were less likely. However, the effects at service centres and Loughborough would be more certain to occur and of a negative nature. Overall, a **minor negative effect** is still predicted, reflecting effects on the character of a number of settlements across the borough, including Loughborough. The effects are not significant from a borough-wide perspective though, as there would be neutral effects in the LUA and Shepshed and potential to minimise effects in the smaller settlements.

Option 4 is predicted to have **significant negative effects**. There could be significant negative effects associated with the new settlement. However, the minor effects at the LUA could probably be mitigated or avoided depending upon the location of sites involved and design. Neutral effects are also predicted for service centres, Shepshed and other settlements, which have sensitive character. Despite the lack of effects in most locations. The significant effects at a new settlement are considered significant at a borough-wide scale when considered in combination with the negative effects in Loughborough and the LUA.

Options 5 and 6 are predicted to have **significant negative effects**. Each option could have negative effects in Loughborough, as well as at the service centres (to a lesser extent). Generally, the effects are lower at Shepshed, the other settlements, and the LUA, but still of a negative nature broadly. On a borough-wide level, the effects are recorded as potentially significant, because negative effects could occur across many of the borough's settlements (in some instances being significant). However, there is uncertainty about whether effects would occur, and / or their extent. Therefore, the effects could be lower, hence the uncertainty for Option 5. For Option 7, there are similarly negative effects across the borough, but with the added impacts identified at the new settlement, therefore, a **significant negative effect** is predicted overall.

## Historic Environment

Though each of these options could generate significant negative effects, it is important to acknowledge that mitigation, avoidance (though more difficult at this scale of growth) and enhancement could be secured through accompanying plan policies. Therefore, this level of growth is not inherently significant with regards to the historic environment. At this stage however, uncertainty about the policies that would support the strategy means that a significant effect ought to be predicted.

The Hybrid Option is predicted to have **uncertain minor negative effects**. In the main, neutral effects are predicted across the borough with the exception of Loughborough, where minor negative effects are predicted. There could also be minor negative effects at some of the smaller settlements, but these could be avoided with site selection, layout and design.

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	--	0	_?	0	0	-
Option 2: Urban Concentration B	-	0	0	_?	0	0	_?
Option 3: Settlement Hierarchy	-	-	0	0	-	0	-
Option 4: Urban Concentration / New Settlement	0	-	0	_?	0	--	--
<b>Hybrid Option</b>	0	-	0	0	_?	0	_?
<b>Scenario B - 15,700 homes</b>							
Option 5: Urban Concentration	--?	--	_?	_?	0	0	--
Option 6: Settlement Hierarchy	-	--	_?	_?	--	0	--
Option 7: Urban Concentration / New Settlement	--?	--?	_?	-	0	--	--

## Minerals

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

The potential for mineral resources to be sterilised by development varies at each of the service centres, as outlined below.

*Anstey* – A total of 5ha of development land falls within an igneous rock safeguarded area. It is likely this could be avoided under each spatial option due to the flexibility in site choice.

*Barrow upon Soar* – A total of 25ha of gypsum rock, 17ha of sand and gravel, and 2.6 ha of igneous rock overlaps with development site options. However, not all of these site options would be required under any of the spatial options. It ought to be possible to avoid loss for option 1 (the lowest level of growth). However, an overlap with 4ha sand and gravel and/or Gypsum mineral safeguard areas (MSAs) could occur for option 3. Option 2 has a slightly higher level of growth which could potentially lead to a loss of 10 hectares of Gypsum depending on what sites are used for development. Option 4 will have a minor negative effect it has a fairly low level of growth of 200 homes but could result in the loss of 5.1 hectares of Gypsum depending on what sites are used for development.

*Quorn* – Option 1 and 4 have housing numbers that are 100 and 200 could effect a small amount of sand and gravel sites in Quorn around 3.5 hectares could be effected. Option 3 and 4 which has housing numbers of 400 could potentially lead to the loss of 4.5 hectares of Sand and Gravel. However, it is unlikely that minerals extraction would be feasible on the sites involved, and the loss would be very small for any of the spatial options.

*Sileby* – There are a range of site options overlapping with minerals safeguarding zones. Approximately 2.2ha fall within Gypsum safeguarded areas, 33ha within sand and gravel, and 2 ha of igneous rock. However, not all of these site options would be required under any of the spatial options. There are also site options not falling into minerals safeguarded areas. At lower levels of growth (option 1 and 4) it is possible that sites in the urban area could accommodate development needs. For flexibility, greenfield sites may be required though, so potentially a small amount of mineral resources could be affected. At double the amount of growth (option 2 and 3) the potential for slightly greater loss (no more than 15ha) of minerals could be affected (the majority would be sand and gravel).

*Rothley* - There are a range of site options overlapping with minerals safeguarding zones. Approximately 36ha fall within safeguarded areas for sand and gravel. However, not all of these site options would be required under any of the spatial options. For option 1, approximately 5 ha could be affected, the highest growth option is under Option 2, but not more than 15ha of mineral land would likely be lost. Under option 3 up to 8ha of mineral land could be affected and under option 4 around 6 ha of land could be affected.

*Mountsorrel* – There are some sites that overlap with mineral safeguarding zones with sand and gravel (114.75 hectares) and igneous rock (49.5 hectares), however the sites are close to housing or already built on so it is unlikely there would be negative effects on economically available minerals. Options 1- 4 will likely have a neutral effect on minerals as the scale of growth is small and therefore the sites needed for it could avoid overlap with the mineral safeguard zones.

Overall, the magnitude of effects correlates with a higher level of growth, as there would be greater land loss and less flexibility in site choice to avoid the sterilisation of minerals. In this respect, option 2 performs the worst, and Option 1 performs the best. The effects for Option 1 are **neutral**, as there would be minimal overlap with resources. For options 2, 3 and 4, uncertain **minor negative effects** are predicted overall from a borough-wise perspective. It may be possible for negative effects to be avoided in the main, but this is not a certainty.

#### Scenario B (Discussion of options for delivering 15,700 homes)

At each of the Service Centres (apart from Mountsorrel) there is increased development under Options 5 and 7, and to a lesser extent option 6. Broadly speaking, this means that the likelihood of overlap with mineral safeguarded zones is higher. This would lead to greater potential for sterilisation in Anstey, Barrow upon Soar, Sileby and Rothley.

Option 5 and 7 are predicted to have **minor negative effects** overall given the much higher level of mineral resources that could potentially be sterilised. However, a lot of areas involving overlap would not necessarily be economically viable sources of minerals, and so the effects are unlikely to be significant in this respect.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. uncertain **minor negative effects**).

## Minerals

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

To the south east of Loughborough, several site options fall within sand and gravel minerals safeguarding areas (with a total of approximately 90ha overlapping). Development here could therefore potentially sterilise these resources.

Option 1 involves the highest level of growth under Scenario A, with the potential of up to 65ha of minerals being affected. However, a substantial amount of sand and gravel resources would remain and the loss of clay and igneous rock should be low. The location of development sites close to the urban fringe may also not be suitable for minerals extraction. Consequently, only **minor negative effects** are recorded.

For options 2, 3, and 4, the overlap with minerals safeguarded zones would be much lower (especially for Option 2) with approximately 45ha of sand and gravel potentially affected for options 3 and 4, and up to 22ha for option 2. Despite this loss, the effects are minimal, and so only uncertain **minor negative effects** are predicted with regards to the potential for sterilisation of important resources in this location.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 require a greater amount of growth compared to Option 1 (the highest growth under Scenario A). As a result, the effects would be more prominent / more likely to occur. **Minor negative effects** are predicted for all three options.

#### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. uncertain **minor negative effects**).

### Shepshed

Development in Shepshed could potentially involve the loss of sand and gravel resources, with approximately 80ha of potential development land falling within safeguarded zones. There are also site options within Shepshed overlapping with clay resources (20 ha) and igneous rock (10 ha).

#### Scenario A (Discussion of options for delivering 8,100 homes)

For option 1, development could be accommodated in the urban area or on sites that do not fall within Mineral Safeguarded Areas. Consequently, a **neutral effect** is predicted.

For option 2 there would be a requirement for a greater amount of land to be released close to the settlement fringes, of which some overlaps with areas Mineral Safeguarded Areas. At this scale of growth there could be a loss of minerals resources, but some flexibility remains with regards to site choice. Consequently, a **minor negative effect** is predicted.

Options 3 and 4 involve a level of growth that could be accommodated partly in the urban area and with limited growth in areas that overlap with mineral safeguarded areas. It should therefore be possible to avoid the sterilisation of mineral resources and so **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

For options 5, 6 and 7 the level of growth is higher than any options under Scenario A. This would mean that the likelihood of mineral safeguarded areas being affected is higher. However, the total loss would not be significant, and so only **minor negative effects** are predicted.

#### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. **Minor negative effects** are therefore predicted.

### Leicester Urban Area

#### Scenario A (Discussion of options for delivering 8,100 homes)

The majority of site options at the LUA (Thurmaston, Thurstaston and Birstall) are either within the built up urban area, or do not fall within minerals safeguarding zones. Therefore, effects due to development in this location are

## Minerals

neutral for options 1-4.

For options 1, 2 and 4 the growth in Syston as part of the LUA would be approximately 1200 homes which could potentially overlap with approximately 25ha of minerals safeguarded areas. Though this is possibly negative, it is considered a **neutral effect** in the context of the minerals resources across the borough and the likelihood of these locations being suitable for workings being low.

For option 3, it should be possible to avoid the majority of the minerals safeguarded areas so **neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

The higher growth options 5 and 6 involve a similar level of housing at the LUA as options 1 and 2. The effects are therefore broadly the same.

Option 7 involves more growth compared to the other options (3900 homes). At this level of growth a **neutral effect** is still predicted, as it ought to be possible to avoid minerals safeguarded zones at the majority of site options. A loss of around 25hectares may occur in the worst case scenario around Syston or Thurmaston which would still have **neutral effects** due to the small amount of land lost and that they would not be suitable locations for mineral extraction.

### Hybrid Option (7,800 homes in total)

The level of growth for this approach is closest to Option 4, and therefore, **neutral effects** are also predicted for the Hybrid Option.

## Other settlements

### Scenario A (Discussion of options for delivering 8,100 homes)

Development at some of the 'other settlements' could potentially overlap with minerals safeguarding zones, whilst at others, effects would be neutral. For example, there would be no overlap at Hathern, Wymeswold or East Goscote. In other areas, there would be an overlap with areas of sand and gravel resources (Queniborough, Rearsby and Barkby for example), but the total potential loss of resources would be minor (less than 20ha in total). With regards to other minerals, site options surrounding Burton upon the Wolds overlap with Gypsum safeguarded areas. However, there are sufficient alternative sites to deliver proposed levels of growth. Overall, a **neutral effect** is predicted for option 3.

Option 1, 2 and 4 do not involve any growth in smaller settlements .

### Scenario B (Discussion of options for delivering 15,700 homes)

For option 6, the amount of growth in the other settlements is a total of 2200 homes This would lead to a greater potential for effects, with perhaps up to 40ha of minerals safeguarded areas overlapped however the majority of these areas would not be used as the allocation of housing for each settlement is small 100-200homes . Therefore the magnitude of effects is still low so a **neutral effect** is predicted. No growth is involved for option 7 and only 200 homes are planned in Markfield under this option therefore **neutral effects** are predicted.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). Therefore, **neutral effects** are predicted also.

## New / expanded settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Option 4 has involves 1000 homes at a standalone settlement in Cotes. The new settlement area at Cotes overlaps with approximately 110 ha of sand and gravel mineral safeguarded zone. However, the area affected at this level of growth would likely be no more than 50ha.

Option 4 could therefore lead to the potential sterilisation of up to 50ha of sand and gravel resources. This is considered to be a **minor negative effect** in the context of total mineral resources. However, there is uncertainty whether the minerals here would be workable in any case.

## Minerals

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 7 involves growth at a new settlement in Cotes of 1500 homes. This could lead to the overlap of an additional 20ha which is also a **minor negative effect**.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Each of the options could lead to the sterilisation of mineral resources due to housing development. This would mostly be sand and gravel resources, which form the largest mineral resource that overlap with site options within the Borough. The loss involved at individual settlements would be unlikely to be significant in the main, as the magnitude of effects would be low, and the potential for resource extraction may also be low. In combination, the potential sterilisation of minerals across the borough amounts to more prominent effects for some options though (as discussed below).

For options 1-4 the total loss of mineral resources could be between 120ha (Options 2 and 3) and 170ha (Option 4). This is a **minor negative effect** for each option in the context of borough wide and regional mineral resources. Furthermore, the nature of some sites involved could mean that mineral extraction was not feasible anyway. Therefore, any 'real' loss of workable minerals would be likely to be lower. With this in mind, negative effects are not predicted to be significant overall.

Options 5, 6 and 7 would involve a greater amount of growth and so naturally, the potential for sterilisation of minerals is greater. The loss would likely be over 300ha for each option, with option 7 performing the worst overall.

Whilst the effects of options 5, 6 and 7 would undoubtedly be more negative than options under scenario A, the effects are still not predicted to be significant, given the total amount of mineral resources available and the likelihood of economically viable resources being sterilised (being low). Consequently, **minor negative effects** are predicted.

The Hybrid Option is predicted to have **minor negative effects** overall as it involves a similar pattern and amount of mineral loss as options 1-4.

	Service centres	Loughborough	Shepshed	LUA	Other settlements	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1	0	-	0	0	0	0	-
Option 2	-?	0	-	0	0	0	-
Option 3	-?	-?	0	0	0	0	-
Option 4	-?	-?	0	0	0	-	-
Hybrid Option	-?	-?	-	0	0	0	-
<b>Scenario B - 15,700 homes</b>							
Option 5	-	-	-	0	0	0	-
Option 6	-	-	-	0	0	0	-
Option 7	-	-	-	0	0	-	-

## Population: Housing

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Should the objectively assessed housing need be achieved (for the borough), this would lead to positive effects on housing. However, setting a target in line with the OAN does not necessarily mean it will be achieved if there are issues of deliverability and phasing. Therefore, at this scale of growth, the potential for significant positive effects could be reduced somewhat unless additional land is released to allow for flexibility.

The distribution of housing is also important to ensure that a wide range of communities benefit from growth, and that development occurs in appropriate, attractive locations.

Option 1 involves a relatively low level of growth in the service centres, and therefore **neutral effects** are predicted. As higher-order settlements with good access to services and jobs, having a low amount of planned growth in these areas may not help to provide housing for residents that wish to remain / move to these locations.

Greater levels of growth around the service centres is likely to make a positive contribution to delivery and affordability. For options 2, 3 and 4, the level of growth is higher at the service centres, and would help to tackle affordability issues. There are sufficient deliverable sites available at the service centres to accommodate the growth involved in each option. Therefore, there is a degree of certainty that positive effects will be achieved. Option 2 is predicted to have a **significant positive effect**, as it delivers a substantial amount of housing to key settlements across the borough on attractive sites. Options 3 and 4 would also have positive effects, but to a lesser extent, and so **minor positive effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

All of the options at the higher growth level involve substantial growth at the service centres. There are still sufficient sites to deliver such growth at the service centres without relying upon longer term opportunities or a handful of large strategic sites. Therefore, the achievement of housing delivery targets would be likely. At these scales of growth, there would be a greater need for supporting infrastructure, but this ought not to act as a barrier to development. Consequently, **significant positive effects** are predicted for options 5, 6 and 7.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. **minor positive effects**).

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

There are a number of sites able to accommodate growth around Loughborough. There is capacity to support growth under each of the alternatives, but for those that involve higher numbers of homes, there would be a need to involve a greater amount of sites (so flexibility in site choice would be lower).

Option 1 proposes the highest level of growth under this scenario, which ought to be most positive with regards to the contribution to deliverability and affordability. At this scale of growth it will be necessary to involve several large-scale developments to the south of Loughborough. This would lead to the creation of large new communities with the potential to support a mix of housing types. There would be a need for phasing, but the sites ought to be deliverable within the plan period. Consequently, a **significant positive effect** is predicted.

Option 2 involves a much lower amount of housing in Loughborough, which would be unlikely to support the levels of need within this area. Therefore, **neutral effects** are predicted.

Options 3 and 4 would deliver a moderate amount of additional housing to the current stock at Loughborough contributing to additional affordable and specialist housing. This contributes to a **minor positive effect** in these locations.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Each of the options involves substantial growth in Loughborough and for the reasons discussed above (for option 1), **significant positive effects** are predicted.

#### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor positive effects**).

## Population: Housing

### Shepshed

#### Scenario A (Discussion of options for delivering 8,100 homes)

There are site development options in the Shepshed urban area, but these would not be sufficient to meet the amount of housing proposed under options 2, 3 and 4. There would therefore be a need to release additional sites at the urban fringes to the west and / or south of the settlement for these three options.

For option 1, there would be flexibility in site choice, and so the delivery of 500 homes ought to be easily achievable. However, the amount of housing delivered in this location would be relatively low, and unlikely to have a notable effect on housing needs and affordability. Therefore **neutral effects** are predicted.

For options 3 and 4, the amount of housing is more than double option 1, and so effects are more likely to be generated. **Minor positive effects** are predicted.

Option 2 involves a higher amount still, and so **significant positive effects** could be generated in the longer term.

#### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Potentially **significant positive effects** are therefore predicted.

### Leicester Urban Area:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Each of the options involve growth at the 'edge of Leicester'. Given that there is a demand for housing in Leicester City, meeting needs on the periphery is likely to have benefits for communities in these locations, and also those looking to maintain a connection to the City.

The likelihood of sites being brought forward in this area depends upon which are allocated. For example, brownfield sites in Thurmaston may not come forward as readily as greenfield sites on the edge of the urban area and at Syston and Anstey. Where there is a reliance on sites with more uncertain deliverability, this could potentially raise question marks about whether housing targets would be achieved in full.

Nevertheless, options 1 and 2, which involve the greatest amount of growth in these areas (3000 dwellings), are predicted to have **significant positive effects** (but with an element of uncertainty as discussed). The growth for option 4 is slightly lower, and so only **minor positive effects** are predicted.

Whilst option A3 proposes a lower level of growth of 1,000 dwellings. This option would not take the opportunity to help meet needs where they are arising (i.e. within close proximity to Leicester), and therefore, a **neutral effect** is predicted with regards to housing (this level of growth may be anticipated anyway given it represents a proportionate approach).

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve only slightly more growth compared to Option 1 and 2, and so similar effects are predicted (i.e. **significant positive effects** with uncertainty).

Option 7 would involve similar amounts of growth and the same sites would be presumed. However, an additional site option to the north east of Thurmaston would be involved, which would lead to enhanced delivery in the Leicester urban periphery.

#### Hybrid Option (7,800 homes in total)

The level of growth at the Leicester Urban Area is closest to Option 4 (which involves 2500 homes). The effects are therefore similar (i.e. **minor positive effects**). Though the hybrid option involves 500 fewer homes compared to Option 4, the effects are still positive, as it is double the amount proposed for Option 1 (which has only a neutral effect).

## Population: Housing

### Other settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 do not propose growth in the other settlements, and therefore effects are predicted to be negative here. There would be limited support for additional new housing in these locations beyond windfall development and existing commitments, and therefore it may be more difficult to tackle rural affordability issues. These locations are also attractive for market development. **Minor negative effects** are predicted as the magnitude of effects are small.

Option 3 ought to have minor positive effects by supporting a modest amount of growth in the other settlements. Therefore, **minor positive effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 involve no growth in the 'other settlements' and so **minor negative effects** are predicted.

Option 6 involves an additional 800 dwellings dispersed amongst the smaller settlements. There ought to be a **significant positive effect** in terms of the provision of housing need in rural areas and supporting the viability of these communities.

#### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). Despite the lower growth, there would still be **minor positive effects** generated in relation to housing provision in smaller settlements, with specific needs.

### New / expanded settlements:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 3 not propose growth in new settlements, and therefore effects are **neutral**.

The effects are neutral as not developing new settlements would not directly lead to a decline in housing availability and affordability in existing settlements.

Option 4 involves substantial housing provision through a new settlement at Cotes. This could contribute to meeting the borough's housing needs, and could provide a mix of types of housing that could generate more affordable housing compared to other 'sub' market areas with well-established values. However, the delivery of growth may be affected by the reliance on infrastructure required to support this level of growth. **Minor positive effects** are predicted, reflecting the scale of growth and the slight uncertainties about deliverability within the plan period.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 do not propose growth at new/expanded settlements, and therefore effects are **neutral**.

Option 7 proposes 1,500 dwellings at a new settlement, rather than 1000 (as per Option 4). This ought to be more positive with regards to housing delivery, as this scale of growth would likely better support new services such as schools and health facilities. There would also be a higher number of homes delivered overall. Consequently, a **minor positive effect** is predicted.

#### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Each of the options under scenario A would generate positive effects with regards to the delivery of housing. However, the spread of housing, and the areas that would benefit the most differ between the options. For option 1, a significant positive effect is generated with regards to growth in Loughborough and the LUA. However, there is much lower growth in other settlements across the borough, and so the range of choice in location would be more limited. Furthermore, this strategy would be more reliant on large scale development in Loughborough, so deliverability in the short term may be more difficult to achieve. For these reasons, only **minor positive effects**

## Population: Housing

are predicted overall.

For option 2, positive effects would be generated at the service centres, and also at Shepshed and the LUA. The range of settlements that would provide increased housing choice and affordability would be greater. Providing homes close to Leicester City is also beneficial in principal as it helps to meet the needs of communities within the City itself that cannot be met in that area. Consequently, a potential **significant positive effect** is predicted.

For Option 3, the effects would be less prominent in any given settlement, but would lead to positive effects in a greater number of settlements across the borough. This would ensure that there was a wide range of housing choice and flexibility, which would be beneficial for a greater range of communities and should support the delivery of smaller and less constrained sites in the short term as well as larger strategic sites in the longer term. Consequently, a **significant positive effect** is predicted overall.

Option 4 would also generate minor positive effects in most areas, with the exception of the LUA and other settlements. There would be lower growth to the 'south' of the borough, as much would be located at a new settlement, Loughborough and Shepshed. In principal the needs of people in the City being met closer to where they arise would not be achieved as easily. With regards to the new settlement, this may be more of a long term solution to housing delivery, so the effects may not perhaps be felt until the longer term. Overall, the effects would still be positive though.

For each of the options at the higher scale of growth, **significant positive effects** are likely to be generated. This is related to the much greater choice of housing sites that would be involved across the borough, which would ensure a wide range of communities can benefit, homes can be delivered throughout the plan period (and importantly in the short term), as well as improving affordability in a range of areas.

The hybrid option is predicted to have **significant positive effect**. It should deliver housing needs, and provide a wide range of choice in locations across the borough. Given the relatively dispersed nature of development affordability issues ought to be tackled in a variety of settlements, and it ought to be possible to deliver a range of house types and tenures to suit communities.

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
1: Urban Concentration A	0	++	0	++ <sup>?</sup>	0	0	+
2: Urban Concentration B	++	0	++ <sup>?</sup>	++ <sup>?</sup>	0	0	++ <sup>?</sup>
3: Settlement hierarchy	+	+	+	+	+	0	++
4: Urban focus and new settlement	+	+	+	0	0	+ <sup>?</sup>	+
<b>Hybrid Option</b>	+	+	++ <sup>?</sup>	+	+	0	++
<b>Scenario B - 15,700 homes</b>							
5: Urban focus	++	++	++	++ <sup>?</sup>	0	0	++
6: Settlement hierarchy	++	++	++	++ <sup>?</sup>	++	0	++
7: Urban focus and new settlement	++	++	++	++ <sup>?</sup>	0	+	++

## Population: Poverty and deprivation

### Service centres:

The service centres are broadly characterised by low levels of multiple deprivation (with the exception of small pockets at Mountsorrel and Sileby that fall within the 20-40% most deprived areas. In the absence of growth, it is therefore unlikely that deprivation would worsen or improve to a significant degree. However, a lack of growth does not allow for the support of new social / community infrastructure.

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 proposes the lowest level of growth the service centres; with an even split of 100 new dwellings each service centre. At this low level of growth the effects upon deprivation are not likely to be significant, therefore **neutral effects** are predicted.

For option 2 (400 per service centre, 100 Mountsorrel), there would be four times as much growth at the service centres compared to option 1. There is potential for positive effects in tackling pockets of deprivation through development contributions to schools, play areas and open space (as well as provision of affordable housing and jobs created).

This would be most beneficial in Sileby, where deprivation is slightly worse than at other service centres and to a lesser extent Mountsorrel due to less growth being directed to this location.

Whilst increased growth could (conversely) have negative effects by increasing traffic congestion and putting pressure on services, the level of growth involved for these options is fairly modest, and so such issues ought to be avoided. On balance, **minor positive effects** are predicted, as the benefits in areas of greatest need would not be assured and would be relatively small scale.

The slightly lower growth options 3 and 4 (200/300 at each service centre and 100 at Mountsorrel), are less likely to have a notable effect on levels of deprivation, and therefore **uncertain minor positive effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 and option 7 propose the highest level of growth in dwellings at the service centres; with the majority of dwellings located at Anstey, Barrow Upon Soar, Silbey, then Rothley and Quorn and the lowest level of growth in Mountsorrel (100 dwellings). These two options would require maximisation of sites for development, which would result in less flexibility on deciding which sites should be brought forward. Whilst the increased level of growth would bring with it higher levels of traffic and potential amenity issues for existing communities, it should also bring more affordable housing and greater contributions to community infrastructure improvements that can help to tackle deprivation. On balance, a **minor positive effect** is predicted.

Option 6 proposes an amount of growth between option 2 and option 7. Whilst positive effects are likely to be generated, there could be some negative effects due to amenity concerns. On balance **minor positive effects** could also be predicted.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. **uncertain minor positive effects**).

## Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 would bring forward a substantial level of growth to Loughborough. Though development would mostly be on the urban fringes, there are areas within Loughborough that fall within the 20% and 10% most deprived areas in the UK (this includes Loughborough Storer and Loughborough Hastings ward that lie to the east of the city).

There are a small number of sites available within the most deprived areas surrounding Loughborough, which could be developed to help alleviate some of the issues relating to poverty and deprivation (i.e. affordable housing, play space, education and health facilities). However, greater benefits could be derived if growth includes larger sites to the edge of the current built up area (which could attract greater development gains). These larger strategic sites are located in areas of mostly low levels of deprivation, but in some places (e.g. to the south east of Loughborough) adjoin areas that have a higher level of deprivation. A **significant positive effect** is predicted for option 1 to reflect these factors. It should be acknowledged however that large scale growth could lead to an increase in traffic and congestion and could affect amenity for some communities. This is

## Population: Poverty and deprivation

a temporary, but **minor negative effect** presuming that infrastructure improvements are secured to minimise longer term impacts.

Options 3 and 4 would involve half the level of growth compared to option 1. This level of growth would help to provide affordable housing and associated improvements to facilities, but at a lesser extent compared to option 1. The necessity to develop larger strategic sites would be lower for these options, and therefore, the benefits accrued may not be as substantial. Therefore, only **minor positive effects** are predicted. The increase in traffic generated as a result of growth would be unlikely to have significant effects upon deprived communities, but there could be some effects on amenity during construction in particular.

Option 2 (800 dwellings) would bring forward the least amount of growth, which could be mainly accommodated by the smaller sites that sit within the urban area. Developing these sites could lead to small scale improvements in deprived areas by provision of affordable housing and community facilities such as play space. However, the scale of the sites and growth overall is unlikely to support strategic improvements to infrastructure. Therefore, the effects are likely to be more focused. Conversely, a lack of substantial growth in Loughborough would mean that further pressure on existing services and infrastructure would be minimal (though there is uncertainty regarding the capacity at education and health services across Loughborough). On balance, **minor positive effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (5,150 dwellings) and to a lesser extent option 6 (4,600) and option 7 (3600) propose high levels of growth in Loughborough.

Similar to option 1, this level of growth would help to secure more affordable homes, and would also be required to contribute towards enhancements to services and facilities including health, education and recreation.

As well as the jobs created through growth, these options would be likely to have positive effects in terms of helping to tackle deprivation.

Sites adjacent to deprived areas would need to be developed for option 5 in particular, as it would require a greater amount of land to be released. This could have particular benefits for those communities if on-site facilities are accessible to existing communities.

However, at this scale of growth there is also potential for more traffic and congestion in the urban area, which could affect deprived communities. A loss of open space at the urban fringe could also be perceived as negative by residents who access this land for recreation. In particular, there would be a loss of land adjacent to the Charnwood Forest. It would be important to ensure that phasing of development took account of the capacity of facilities, or there may be potential for short term negative effects in terms of access to education and health facilities. On balance, the effects are predicted to be **significantly positive** for each option, but there are **minor negative effects** identified too for options 5 and 6.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor positive effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

There are broadly medium - low levels of multiple deprivation within Shepshed, with small pockets of the urban area that fall within the top 20% deprived locations in the country.

Option 1 (500 dwellings) would bring forward the least amount of growth to Shepshed, which could be mainly accommodated by the smaller development sites that fall within the current built-up urban area. Development of these sites could lead to small localised improvements through the provision of affordable housing and social infrastructure improvements. On brownfield sites that are of a low quality, redevelopment could also potentially lead to physical improvements to the environment. However, the scale of development is unlikely to support strategic infrastructure improvements.

Conversely, a lack of substantial growth in Shepshed could help to reduce additional pressure on existing services and infrastructure. There is one GP that does have capacity issues, and so do several schools. At this level of growth, new facilities may not be viable, but contributions to expanded facilities would be possible provided sites are not landlocked. On balance, **neutral effects** are predicted.

## Population: Poverty and deprivation

Option 2 (2,200 dwellings) would help to provide affordable housing and associated improvements to facilities, which would be brought forward on larger strategic sites surrounding the town and on smaller sites in the built up area. It is likely that sites to the west of the settlement would need to be involved. Whilst these would provide increased housing and services, these are not directly accessible to current deprived areas, and so only **minor positive effects** are predicted. Increased growth is likely to increase traffic generated and would have amenity impacts for some communities (though not those in deprived neighbourhoods). However, these effects are unlikely to be significant. An **uncertain minor negative effect** is predicted.

Option 4 (1,500) and 3 (1,200 dwellings) would involve a lower amount of growth compared to option 2, but should still generate **minor positive effects**. However, the lower scale of growth would mean that negative effects are less likely to occur.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (2,650 dwellings), 7 (2,600 dwellings) and 6 (2,500 dwellings) involve higher growth to Shepshed compared to any of the options under Scenario A. Though increased growth would be delivered, significant positive effects are still not likely to be generated as areas of greater deprivation would not directly benefit. Likewise, the negative effects upon communities would likely remain minor.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Therefore, mixed effects are predicted (minor positives and negatives).

### **Leicester Urban Area:**

There are a number of sites that could accommodate growth on the edge of Leicester. Whilst the majority of these do not fall directly within areas of high multiple deprivation, they are adjacent to areas in the City that fall within the top 10 % deprived nationally (for example Stocking Farm ward in Leicester City is within the top 10%, also Rushley mead ward falls within the top 20% most deprived wards). Sites to the south-west of Syston and East Syston also fall within the top 30% most deprived wards in the country. Growth in these locations has the potential to benefit nearby communities through contributions to infrastructure improvements (social and physical), and greater availability of affordable housing. However, these areas are also in areas that could suffer negative implications. For example, traffic is expected to increase along the A563 and is likely to have the greatest impact on the deprived areas which are in the closest proximity to the road network. Therefore, positive effects are likely to be offset slightly by a loss of open space, increased traffic and short term pressure on existing services.

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 & 2 (3,000 dwellings) would involve a level of growth that ought to help reduce poverty in some of the most deprived areas surrounding Leicester, such as Stocking Farm. This has the potential to generate **significant positive effects** for the reasons discussed above relating to affordable housing and social infrastructure. It is unlikely that development would have significant negative effects in terms of amenity and congestion at this scale of growth.

Option 3 (1,000 dwelling), would bring the lowest level of growth to the edge of Leicester. Therefore, the effects (positive and negative) on deprivation would be less significant. An **uncertain minor positive effect** is predicted. Whilst the level of growth is relatively low, it would still be in areas where development could potentially benefit areas of multiple deprivation.

Option 4 (2,500 dwellings) involves a slightly lower level of growth within the LUA. Therefore, **significant positive effects** could occur but are less certain compared to Options 1 and 2.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 involve similar levels of growth compared to options 1 and 2 and therefore the effects are predicted to be the broadly the same (i.e. **significant positive effects**).

Option 7 proposes a higher level of growth compared to options 2 and 3 discussed above. The negative effects felt across along the main arterial roads into out of the city may increase slightly due to pressure on the road network, resulting in increased congestion. Overall this maybe be counter balanced by the more significant positive effects brought forward by additional housing.

## Population: Poverty and deprivation

This may lead to a great mix of the type and size of housing to support the needs of a greater proportion of the community, especially those who are currently feeling the effects of deprivation and poverty to the south west of the built up urban area. This increased number of dwellings may also bring forward additional community benefits to these areas that maybe otherwise only decline from their current state of deprivation by development sports and leisure facilities / community hubs for new residents but also will benefit the residents currently living in these parts of the city.

Overall, this is likely to lead to a fairly modest amount of growth in the LUA. Though there could be some **minor negative effects** (as identified above), the positives should outweigh these and target growth to areas that are most in need of investment. Therefore, overall, a **significant positive effect** is predicted.

### Hybrid Option (7,800 homes in total)

This option involves double the amount of growth compared to Option 3. Therefore, the positive effects are more likely to occur. However, the scale of growth is 500 dwellings less than option 4, and so the effects are less likely to be significant. Consequently, **minor positive effects** are predicted.

### **Other settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 & 4 propose no development at other settlements and smaller settlements. These areas are mostly located in areas with low levels of multiple deprivation. Therefore, the need for regeneration and growth to tackle deprivation is not a priority here. Whilst a lack of growth would not help to tackle rural accessibility issues, it would be expected to have a **neutral effect** with regards to deprivation.

With regards to schools, the majority in smaller settlements are unable to expand further, and many communities are reliant on larger villages and towns for a doctors surgery. Therefore, a lack of development should help to avoid additional pressure on such facilities.

Option 3 (1,400 dwellings) proposes a split of 100 new dwellings across each settlement, with the exception of Swithland where no development is proposed. Development at this scale is likely to impact individual settlements differently. As these areas are generally characterised by low levels of deprivation, this growth would not be anticipated to have significant effects as it is small scale and not in priority areas.

However, if increased growth is not matched sufficiently with enhancements to local facilities and services, levels of deprivation could perhaps decline in some domains (for example access to a GP or school may be lacking) and improve in others (for example housing affordability). On balance, the effects are likely to be **neutral** in terms of levels of deprivation.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 & 7 also propose no development and would result in **neutral effects** as stated above for option 1, 2 and 4.

Option 6 (2,200 dwellings) proposes a higher level of growth to other settlements than option 3. However, certain settlements will accommodate a slightly higher level of growth. As these areas are generally characterised by low levels of deprivation, this growth would not be anticipated to have significant effects as it is small scale and not in priority areas. Therefore, **neutral effects** are also predicted for option 6.

### Hybrid Option (7,800 homes in total)

Similar levels of growth to Option 3 are involved for the hybrid option, and so **neutral effects** are also predicted.

### **New / standalone settlement:**

Cotes is not located in an area with high levels of deprivation. Given that Options 1, 2, 3, 5 and 6 propose no growth to cotes the effects are therefore likely to be **neutral** as no existing communities would be likely to be affected (positively or negatively).

Option 7 (1,500) and to a lesser extent option 4 (1,000 dwellings) would look to bring forward growth at Cotes. A new settlement would likely incorporate opportunities for new facilities to be provided alongside housing growth in order to create sustainable communities. Whilst this would not necessarily help to tackle deprivation in existing communities, it ought to ensure that future communities are less likely to become deprived (by ensuring they are sustainable to begin with).

## Population: Poverty and deprivation

An uncertain **minor positive effect** is predicted for both options as access to facilities is not immediate and might not be taken up by residents without access to a car. Therefore, benefits for the most deprived communities are questionable.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### Overall effects

Option 1 proposes the majority of growth to the LUA and Loughborough. Due to there being areas of deprivation in both of these locations there is the potential to have significant positive effects on levels of deprivation throughout the borough, and also within Leicester City itself. No growth is focused at the smaller settlements and minimal growth is directed to Shepshed and the service centres. However, this is unlikely to have an effect upon deprivation in these locations given that current levels are broadly low. The overall effects are therefore predicted to be **significantly positive**.

Option 2 proposes a similar level of growth around the LUA, which would generate significant positive effects in this location. However the majority of growth is focused around the service centres and Shepshed, with lower levels of growth at Loughborough. Consequently, the positive effects in most areas are predicted to be minor. With this being said, the benefits across the borough are considered to be **significantly positive** when viewed in combination.

Option 3 proposes proportionate growth. This would direct less growth to the LUA and Loughborough and therefore lacks the positive effects in these locations, which involve the greatest levels of deprivation. There is also greater uncertainty about the positive effects in the LUA and the Service Centres. Overall, this constitutes a **minor positive effect**.

Option 4 involves a lot of growth in areas where deprivation is not a prevalent issue. The effects of growth in these locations are therefore minor and in some cases it is uncertain whether effects would be generated. The benefits in Loughborough (as one of the areas of greater deprivation) are minor, and there is some uncertainty whether those at the LUA would be significant. Consequently, the effects overall are predicted to be **minor positive effects**.

Options 5, 6 and 7 all involve high levels of growth in Loughborough and the LUA, which would have significant positive effects in these locations. Beneficial effects would also be generated at the service centres and Shepshed, but at a lesser magnitude. Overall, **significant positive effects** are predicted from a borough-wide perspective for each of these options. However, due to the higher levels of growth, the potential for **minor negative effects** is greater.

The hybrid option is predicted to have **minor positive effects** overall. Though there would be concentrations of growth in the Leicester Urban Area and Loughborough (which contain areas of deprivation), the amount involved is lesser than for Options 1 and 2, and so effects are not as positive. However, this approach should ensure that the benefits of development are spread more equitably across the borough and that negative effects (i.e. in terms of increased disturbance / traffic) would be largely avoidable.

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects
<b>Scenario A - 8,100 homes</b>							
Option 1: Urban Concentration A	0	++ -?	0	++	0	0	++
Option 2: Urban Concentration B	+	+	+ -?	++	0	0	++
Option 3: Settlement Hierarchy	+?	+	+	+?	0	0	+
Option 4: Urban Concentration / New Settlement	+?	+	+	++?	0	+?	+

**Population: Poverty and deprivation**

<b>Hybrid Option</b>	+	+	+	-?	+	0	0	+		
<b>Scenario B - 15,700 homes</b>										
Option 5: Urban Concentration	+	++	-	+	-?	++	0	0	++	-
Option 6: Settlement Hierarchy	+	++	-	+	-?	++	0	0	++	-
Option 7: Urban Concentration /New Settlement	+	++	+	-?	++	-	0	+	++	-

## Population: Healthy and active lifestyles

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

For option 2 (400 per service centre, 100 Mountsorrel), there would be moderate growth at the service centres. The increase in population would have the potential to put increasing pressure on existing health and leisure services, unless new / enhanced services were brought forward along with this proposed level of growth in housing. Several primary schools are at or near to capacity across the service centres, and so additional development of this scale could lead to adverse impacts should enhancements not be secured. Likewise, GP surgeries are in a similar position, and there is no surgery in Rothley. Development here would therefore be likely to involve development where access to health facilities is not ideal (in the absence of new facilities).

There would also be greater pressure to release greenfield land, which could be used for recreation. Consequently, **minor negative effects** could occur for option 2. However, growth also brings potential for enhancement, and the service centres are broadly well located in terms of access to recreation opportunities, with the exception of Mountsorrel. **Minor positive effects** are predicted in this respect. Overall, the effects are mixed, as there may be some benefit to certain communities with regards to wellbeing (for example from GI enhancement). However, access to health care may be an issue in some locations, which is negative for other residents.

Option 3 (300 per service centre, 100 Mountsorrel) and option 4 (200 per service centre, 100 Mountsorrel) could result in an increased pressure on open space and health facilities. Most of the service centres have at least one GP surgery, with the exception of Rothley (whereby increasing pressure would be put on nearby services at Mountsorrel). At this scale of growth, there may not be a critical mass to support new facilities (and even more so for Option 4 which involves lesser growth still). Where it is not possible to expand sites, residents may therefore need to travel further to access facilities and services, which is an **uncertain minor negative effect**. Conversely, a higher level of growth could (particularly on larger sites) present opportunities to secure local improvements to green infrastructure and open space provision. These are **uncertain minor positive effects**. Overall, a mixed effect is predicted.

Option 1 proposes the lowest level of growth the service centres; with an even split of 100 new dwellings each service centre. The choice of sites ought to be flexible, and those with good access to health and recreational facilities could be developed. The effects on open space and recreation would be limited given the scale of growth at each Service Centre, but likewise, the effects on services and facilities would be less pronounced. Overall, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 6, (600 per service centre, 100 Mountsorrel) proposes a slightly higher level of growth as option 2 above, therefore there are increase opportunities for current health and leisure facilities to be brought forward along with this level of growth, which in turn could reduce pressure on the existing services, resulting in greater positive effects, and eliminating the potential negative effects by the lower growth levels, overall bringing forward **minor positive effects**.

Option 5 and option 7 proposes the highest level of growth totalling 4,600 dwellings at service centres, with the majority of dwellings located at Anstey (950) , Barrow Upon Soar (900) and Silbey (900), Rothley (850) and Quorn (700) and the lowest level of growth in Mountsorrel (100 dwellings). These two options would require maximisation of sites for development which could lead to negative effects by putting additional pressure on existing services. However, at this level of strategic growth it ought to be possible to support new facilities which would benefit new and existing communities. The larger sites that may be involved could also present more opportunities for strategic improvements to open space and green infrastructure. Consequently, a **significant positive effect** is predicted in the long term. However, **minor negative effects** are also predicted, as some residents may perceive a loss of greenfield land as negative, and may suffer from poorer access to facilities in the short term.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. **uncertain minor and positive effects**).

### Loughborough

Currently, there are 4 GP surgeries located within the built up area of Loughborough and an additional three GP surgeries dispersed between Loughborough and Shepshed.

## Population: Healthy and active lifestyles

By locating growth in locations close to the centre of town in Loughborough there is the opportunity to ensure good access to current health and leisure facilities, along with opportunities to improve access to open space, including green linkages throughout the built up area.

Sites able to accommodate larger growth are on the edges of the built up area. Therefore access to health services in these locations would be more distant unless new facilities were secured alongside development.

### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 (4,000 dwellings) proposes to bring a significant level of growth to Loughborough and therefore has the potential impact upon healthy and Active lifestyles. This level of growth has the potential to direct development to some of the smaller more accessible sites within the built up urban areas, alongside a smaller number of large sites on the edge of Loughborough, which could create the critical mass for new health facilities. The larger sites could also bring opportunities to create new recreational spaces, which could encourage participation in recreation without resulting in wholesale development of open space at the urban fringes. However, development to the south / south – west of the urban area could encroach upon the Charnwood Forest, and potentially affect valuable recreational land. **Significant positive effects** are recorded in relation to the creation of communities that should have good access to health and recreation. Although green infrastructure and open space improvements should be possible to implement as part of development, the disturbance to the Charnwood Forest is a potential residual **minor negative effect**.

Options 3 and 4 would bring a lower amount of growth to Loughborough of 2000 dwellings, with larger sites to the south of Loughborough and a number of other smaller and medium size sites in the built up area. Development should therefore be well located in the main with regards to health and leisure facilities. There could be negative effects on open space within the Charnwood Forest boundary, but this lower level of growth ought to provide some flexibility in site choice and layout. On balance a **potential significant positive effect** is predicted, at the same time a **potential minor negative effect** is predicted also.

Option 2 (800 dwellings) would bring forward the least amount of growth, which could be mainly accommodated by the smaller sites that sit within the urban area. If development was focused on the smaller sites within the current built up urban area, there would be good access to existing health facilities, and avoidance of the loss of open space. Whilst there may be additional pressure put upon the existing services, they should be able to accommodate this level of growth dispersed across the urban area. Conversely, there are fewer opportunities to provide new services, or to improve access to open space and promote/provide recreational facilities at the urban fringe. Consequently, **minor positive effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 (5,150 dwellings) and to a lesser extent option 6 (4,600) propose the highest level of growth to Loughborough and some of the larger sites would need to be developed to achieve this target. This would be more likely to lead to a loss of open green space on the urban fringes, some of which is valuable as recreational space and is a gateway to the Charnwood Forest. Though enhancements might be delivered as part of development, the potential for negative effects exists. The pressure on health services would also be greater at this level of growth, so enhancement or new facilities would be required. Whilst these are positive effects, they are more likely to be significant compared to option 1 above. However, the negative effects are also more likely to be prominent. At this scale of growth, there remains some flexibility in the choice of sites and densities, so it ought to be possible to plan for health and recreation positively. However, a potential **significant negative effect** is predicted to reflect these issues for Option 5 and **minor negative effects** for option 6. **Significant positive effects** are recorded relating to good accessibility in the urban centre to health facilities and enhancement opportunities at the urban fringe.

Option 7 (3,300) proposes to bring forward a slightly lower level of growth compared to option 1, but is still likely to generate **significant positive effects** in the longer term. The likelihood of negative effects is slightly lower, but a **minor negative effect** is still likely to occur at least during construction.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. mixed effects).

## Shepshed

There are currently two GP surgeries located in Shepshed and an additional three surgeries dispersed between Shepshed and Loughborough. It is understood that several of these facilities have capacity issues (as do several primary schools).

## Population: Healthy and active lifestyles

By locating growth in locations close to the centre of town in Shepshed there is the opportunity to ensure good access to current health and leisure facilities, along with opportunities to improve access to open space, including green linkages throughout the built up area. However, if enhancements or new facilities are not secured, then it is possible that negative effects upon health care access would occur.

Sites able to accommodate larger growth are on the edges of the built up area. Therefore access to health services in these locations would be more distant unless new facilities were secured alongside development. This may be possible at higher scales of growth though (and ought to form a condition of development).

### Scenario A (Discussion of options for delivering 8,100 homes)

Option 2 (2,200 dwellings) has the potential for negative effects given the need for the loss of greenfield land and an increased pressure on services (at least in the short term). This option has the potential to direct development to some of the smaller more accessible sites within the built up urban areas, alongside a smaller number of large sites on the edge of Shepshed, which could create the critical mass for new health and education facilities. The larger sites could also bring opportunities to create new recreational spaces, which could encourage participation in recreation without resulting in wholesale development of open space at the urban fringes. Consequently, mixed effects are predicted. In the short-term, **minor negative effects** are noted, but there could be **significant positive effects** in the longer term relating to housing provision, enhanced green infrastructure provision and social infrastructure improvements.

Options 4 (1,500) and 3 (1,200 dwellings) propose lower growth than option 2, and so the extent and magnitude of effects relating to open space loss ought to be lower. There would still be some pressure on health services, but in the main, access ought to be sufficient. The necessity to develop larger strategic sites would be lower for these options, and therefore the likelihood of positive effects occurring is also more uncertain (relating to green infrastructure enhancements). On balance, **minor positive effects** are predicted.

Option 1 (500 dwellings) proposes the least growth to sites located close to Shepshed. If development was focused on the smaller sites within the current built up urban area, there would be good access to existing health facilities, and avoidance of the loss of open space. Whilst there may be additional pressure put upon the existing services, they should be able to accommodate this level of growth dispersed across the urban area. Conversely, there are fewer opportunities to provide new services, or to improve access to open space and promote/provide recreational facilities at the urban fringe. Consequently, **neutral effects** are predicted overall.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (2,650 dwellings), 7 (2,600 dwellings) and 6 (2,500 dwellings) would require greater release of the larger greenfield sites on the urban fringes. This would lead to a loss of open green space on the urban fringes, some of which is valuable as recreational space and is a gateway to the Charnwood Forest. Though enhancements might be delivered as part of development, the potential for negative effects exists. The pressure on health services would also be greater at this level of growth, so enhancement or new facilities would be required, in particular to the south of Shepshed where there is currently no GP surgery. A number of the sites to the south of Shepshed have been previously developed and therefore would not result in a significant loss of green space. At this scale of growth, there remains some flexibility in the choice of sites and densities, so it ought to be possible to plan for health and recreation positively. However, a potential **minor negative effect** is predicted to reflect these issues. **Significant positive effects** are recorded relating to good accessibility in the urban centre to health facilities and enhancement opportunities at the urban fringe.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Consequently, mixed effects are predicted. In the short-term, **minor negative effects** are noted, but there could be **significant positive effects** in the longer term relating to housing provision, enhanced green infrastructure provision and social infrastructure improvements.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 & 2 (3,000 dwellings) could be brought forward on the smaller to medium sized sites within the built up area in addition to a few larger sites on the edge of the LUA. This could put increasing pressure on the existing health services.

With coordinated growth though, it ought to be possible to secure contributions towards enhanced local facilities.

## Population: Healthy and active lifestyles

Development on some sites which are currently privately owned could lead to improved access to open green space if enhancements are secured to green infrastructure. There may also be potential to link to recreation at the Watermead Country Park through the redevelopment of employment land for residential uses. This could help to increase participation of physical activity, helping to improve health and wellbeing. Overall, **minor positive effects** are predicted.

Option 4 proposes 2,500 new dwellings at the edge of Leicester. This is likely to have similar effects to options 1 and 2.

Option 3 proposes 1,000 dwellings at the edge of Leicester. This level of growth could also put pressure on existing services, but would be less likely to impact upon open green space. Therefore, it ought to be possible to avoid negative effects for this option. The likelihood of positive effects occurring would be lower though, so a **neutral effect** is predicted overall.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 7 (3,900) proposes the highest level of growth to the edge of Leicester into the urban areas of Thurmsaston, Birstall and Syston. These areas all have reasonable access to health facilities and recreational facilities (for example Watermead Country Park), so new development ought to be well located in this respect, which is positive.

The level of growth involved however could put pressure on these facilities unless supported by enhancements, which is a potential negative effect at least in the short term.

The level of growth and sites involved ought to allow for such enhancements, though some existing facilities could be unable to expand in order to accommodate this level of additional housing. Additionally, this level of growth would require a large amount of open/green space in order to deliver this high level of housing. Green space could be incorporated into these developments however the overall amount of open space would be reduced. Consequently, mixed effects are predicted (**minor positive effects** and **minor negative effects**).

Options 5 & 6 (3,300 dwellings) proposes a similar level of growth to options 1 & 2 above, therefore **minor positive effects** are also predicted.

### Hybrid Option (7,800 homes in total)

This approach is most closely related to Option 4, but involves 500 fewer dwellings. Nevertheless, the provision of 2000 homes in the Leicester Urban Area is still likely to generate a minor positive effect in relation to healthy and active lifestyles. Similar to options 1, 2 and 4 it should be possible to secure contributions towards new facilities for health at this scale of growth, whilst the effects in terms of open space loss would be negligible.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 propose no development at other settlements and smaller settlements and so **neutral effects** are predicted with regards to healthy lifestyles. Without substantial growth in these areas, the critical mass for new health facilities would not be generated, and so it would only lead to more people having to travel further to access facilities if additional growth was located here. The lack of development would also help to protect green and open space, which is used for recreation. Therefore, no change is likely.

Option 3 (1,400 dwellings) proposes a split of 100 new dwellings across each settlement, with the exception of Swithland whereby no development is proposed. Development at this scale is likely to impact individual settlements differently. Development in most settlements would have poor access to health facilities and other services and would not generate the demand for local improvements. Therefore, access to health for new residents would be largely reliant on car travel. The loss of greenfield land is also likely to occur, but this should not affect the wider accessibility to the countryside given the location of such settlements. However, an increase in the population at settlements that currently have no GP surgery and leisure facilities would mean that access to services was poor for some new residents. This would lead to a need to travel to higher order settlements (For example, residents at Queniborough, East Goscote and Thrusington may need to use GP services at Syston). A **minor negative effect** is recorded in this respect for both options.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 & 7 also propose no growth at other settlements, likely to result in **neutral effects**.

## Population: Healthy and active lifestyles

Option 6 (2,200 dwellings) proposes a moderate level of growth to other settlements and villages, slightly higher than option 3 above. This is likely to lead to increase negative effects in the villages with the higher proposed growth levels (such as Queniborough, East Goscote and Thrussington) that do not have a GP surgery within the settlement, increase pressure of services in certain locations. It is unlikely this level of growth would lead to the creation of new/ expanded facilities; therefore this is likely to lead to greater negative effects. It is uncertain whether these would be significant or not though.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). Despite the lower growth, there would still be **minor negative effects** generated in relation to poor access to health care. The ability to improve open space and other infrastructure could offset these effects somewhat.

### **New settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

A **neutral effect** is predicted for options 1, 2 and 3, as no growth is proposed at a standalone settlement.

Option 4 involves 1,000 dwellings at Cotes. There are limited health and leisure services within walking distance at present, with nearby settlements mostly reliant on the service centres or Loughborough for education, health and leisure facilities. However, at such a scale of growth it may be possible to create the critical mass for new satellite health facilities to serve new communities (and any nearby lower order settlements such as Hoton and Prestwold). Therefore, the new communities ought to be well served by health and community facilities.

The scale of the site should help to secure accessible green infrastructure for new residents, and for nearby communities if good links are created. Given that these areas are not specifically used for recreation at present, this could be an improvement on the baseline position and could be a significant positive effect. However, without scheme details, it is not possible to be certain about the extent of positive effects, so a **minor positive effect** is predicted at this stage (but there is some uncertainty).

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 do not involve growth at the new settlement and therefore **neutral effects** are predicted.

Option 7, proposes a higher level of growth to option 4 above, therefore, it ought to be possible to secure health facilities and other community services more easily (due to a greater critical mass). This removes an element of uncertainty associated with Option 4. Therefore, **minor positive effects** are predicted.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### **Overall effects**

Option 1 is likely to have significant positive effects upon health and wellbeing for residents residing in and around Loughborough, and to a lesser extent within the Leicester urban area. The effects at the majority of other settlements are likely to be neutral or minor though and minor negative effects are predicted at Loughborough in the short term. Overall, much of the borough could remain unchanged with regards to health and wellbeing, and so the effects are predicted to be only **minor positive effects** at a borough wide scale.

Option 2 is less likely to generate a significant positive effect in any one location, and there may be mixed effects at the Shepshed. However, the positives are more pronounced and are likely to outweigh the negatives overall. A **minor positive effect** is predicted overall from a borough wide perspective.

Option 3 is likely to have less prominent and more uncertain effects due to the dispersal of growth, both positive and negative. Whilst the loss of open space in any one location would be lower, opportunities to deliver new facilities along with population growth could be more limited due to the growth being dispersed. Growth at the other settlements would also lead to negative effects by placing people in less accessible areas.

Overall, a **neutral effect** is predicted, as there could be gains and losses in different areas (with regards to open space and health care accessibility), but no significant change in Borough trends overall.

Option 4 is predicted to have similar effects to option 3, though there would be greater potential for positive effects at the LUA, and at a new settlement. Consequently, an **uncertain minor positive effect** is predicted

## Population: Healthy and active lifestyles

overall from a borough wide perspective.

Option 5 is likely to generate significant positive effects at Loughborough and Shepshed, whilst also generating positive effects at the LUA and service centres. Consequently, the effect from a borough-wide perspective is **significantly positive** overall. **Minor negative effects** are also recorded as there is greater potential for loss of open space and disturbance to amenity in the short term in particular.

Option 6 is predicted to have similar benefits to option 5, but the negative effects would be less prominent at Loughborough and more prominent (and permanent) at the smaller settlements. Consequently, a **significant positive effect** is predicted, with a potential/uncertain **significant negative effect** highlighted also.

Option 7 would have similar benefits to options 5 and 6, but with added benefits at a new settlement. Minor negative effects are recorded also, though these are mostly related to a loss of open space and pressure on services in the short term.

The hybrid option is likely to generate positive effects in the majority of settlements, ranging from minor benefits in the service centres to potentially significant positive effects at Loughborough and Shepshed. This is related primarily to good accessibility with regards to health care, and opportunities to promote active living and recreation. However, negative effects are predicted in relation to the loss of land that may be considered locally important for recreation, and also where access to health care might be poor (for example in the 'other settlements'). On balance, the overall trend for the borough ought to be an improvement against the baseline position, despite some areas / people perhaps experiencing negative effects. Consequently, a potentially **significant positive effect** is predicted.

	Service centres		Loughborough		Shepshed		LUA		Others	New settlement	Overall effects	
<b>Scenario A - 8,100 homes</b>												
Option 1: Urban Concentration A	0	++	-	0	+	0	0	0	0	0	+	
Option 2: Urban Concentration B	0	+ <sup>?</sup>		++ <sup>?</sup>	-	+	0	0	0	0	+	
Option 3: Settlement Hierarchy	+ <sup>?</sup>	- <sup>?</sup>	++ <sup>?</sup>	- <sup>?</sup>	+	0	-	0	0	0	0	
Option 4: Urban Concentration and New Settlement	+ <sup>?</sup>	- <sup>?</sup>	++ <sup>?</sup>	- <sup>?</sup>	+	+	0	+	+	+	+ <sup>?</sup>	
<b>Hybrid Option</b>	+ <sup>?</sup>	- <sup>?</sup>	++ <sup>?</sup>	- <sup>?</sup>	++ <sup>?</sup>	-	+	- <sup>?</sup>	0	0	++ <sup>?</sup>	
<b>Scenario B - 15,700 homes</b>												
Option 5: Urban Concentration (high)	+	++	-- <sup>?</sup>	++	-	+	0	0	0	0	++	-
Option 6: Settlement Hierarchy	+	++	-	++	-	+	-- <sup>?</sup>	0	0	0	++	-- <sup>?</sup>
Option 7: Urban Concentration and New Settlement	+	++	-	++	-	+	-	0	0	+	++	-

## Local economy

### Service centres:

Housing growth can have positive effects on the economy through the support for construction workers, by providing suitable homes for a growing workforce, and through increased spending in the local economy such as in local centres. A higher number of homes would also generate increased Council tax, which could subsequently be returned into the local economy through provision of services.

#### Scenario A (Discussion of options for delivering 8,100 homes)

For option 2 (400 per service centre, 100 Mountsorrel) and to a lesser extent Option 3 (300 per service centre, 100 Mountsorrel) and option 4 (200 per service centre, 100 Mountsorrel) there would be moderate growth at the service centres, which would have minor benefits with regards to an increase in local spending. It would also place workers in relatively accessible locations with regards to jobs. The larger service centres located along the Soar Valley provides a variety of industrial employment opportunities, including activities related to mineral extraction, textiles and engineering. Overall, a **minor positive effect** is predicted for each option, reflecting these factors.

Option 1 (100 per service centre) delivers a relatively low level of growth at each service centre, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Option 6, (600 per service centre, 100 Mountsorrel) proposes a slightly higher level of growth compared to option 2 above, and so the effects ought to be of a greater magnitude. Consequently, a potential **significant positive effect** could be generated.

Options 5 and option 7 propose the highest level of growth totalling 4,600 dwellings at service centres at a level that would help to generate substantial jobs for the construction of homes in these locations, whilst also placing new development in settlements with relatively good access to jobs. An increase in housing should also help to support increased local spending. **Significant positive effects** are predicted.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are predicted to be minor positives, but there may be greater element of uncertainty that effects would be generated. This is due to the lower amount of growth involved for the hybrid option and whether or not this would create the critical mass to achieve benefits.

## Loughborough

Loughborough is the Boroughs principle employment centre and over the years has diversified from a traditional textile and engineering base into pharmaceuticals, general manufacturing services, and warehousing and distribution. A key component of the service sector is research and development. This area offers strong new employment potential especially through the development of the Science Park off Ashby Road, which Charnwood Borough Council has identified as a key employment location, along with the enterprise park. A further boost to this sector is the Charnwood Campus, which supports a range of businesses in life sciences. Both Loughborough University and Loughborough College of Further Education are both important to the local economy. Loughborough is also likely to benefit from job opportunities at the East Midlands Gateway.

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 (4,000) proposes over half of the total borough growth to Loughborough. Therefore, there could be opportunities to link up new development with the existing employment centres, via public transport. Provision of homes in the periphery could also help to tackle deprivation, should it help to provide accommodation for such communities along with increased job diversification. An increase in housing accommodation could also help to support students and young professionals wishing to locate in this area. A **significant positive effect** is predicted.

Option 3 & 4 both propose 2,000 dwellings to Loughborough (half that for option 1). The effects are therefore less likely to be significant. **Minor positive effects** are predicted.

Option 2 proposes the least amount of growth at Loughborough. There would be fewer opportunities to support economic growth, and the effects on the economy would likely be small. Consequently, **neutral effects** are predicted.

## Local economy

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (5,150) and to a slightly lesser extent option 6 (4,600) propose the highest levels of growth to Loughborough. Similar to Option 1, this would generate **significant positive effects** by supporting accommodation for workers, linking homes to economic growth areas and supporting an increase in local spending.

At higher levels of growth however, there could be increased competition for jobs should there be increased migration into the area. At the higher levels of growth, there could also be more pressure on transport routes, which could have negative implications for businesses and / or make investment less attractive. **Uncertain minor negative effects** are predicted for Option 5 (as well as the positive effects) to reflect these issues.

Option 7 (3,300 dwellings) is predicted to have **significant positive effects**, similar to Option 1.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor positive effects**).

## Shepshed

Shepshed has moved from a traditional reliance on manufacturing towards distribution firms and facilities. These are taking advantage of a location adjacent to Junction 23 of the M1. The town has strengthened economic links with Loughborough in recent years also. Shepshed is also likely to benefit from job opportunities at the East Midlands Gateway and could complement this offer with new employment land development.

### Scenario A (Discussion of options for delivering 8,100 homes)

Option 2 proposes a relatively large amount of growth at Shepshed, which would provide accommodation in close proximity to job opportunities and also with links to Loughborough and strategic transport routes. This level of growth could also support infrastructure improvements and local spending. The large scale sites to the west are within close proximity to Junction 23 of the M1; therefore development is likely to support job growth in this location. Additionally, development of the small scale sites within the town should help to support the towns own economic hub. Therefore overall, **potential significant positive effects** are predicted for option 2.

Options 3 (1,200) and 4 (1,500) both propose moderate levels of growth to Shepshed. Consequently only **minor positive effects** are predicted.

Option 1 involves a low level of growth and so **neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (2,650), 6 (2,500) and 7 (2,600) all propose the highest levels of growth for Shepshed. This level of growth should support infrastructure improvements and local spending. Also, this level of growth may support opportunities to create/expand current employment hubs, allowing the continuation of employment rates around Loughborough and Shepshed and job diversification. New development could help to provide accommodation for the working age population due to the delivery of a diverse range of housing to the area. **Significant positive effects** are predicted.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Consequently, **potential significant positive effects** are predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1 and 2 (3,000 dwellings) propose growth at the edge of Leicester, largely into the urban areas of Thurmaston, Birstall and Syston. The delivery of homes in these areas should provide good access to jobs in the city, and further afield should there be connections to the strategic road networks. However, access to a large proportion of these jobs outside of Leicester could rely on the private car, and so certain communities might not benefit.

Provision of homes to the edge of Leicester could help tackle deprivation in the worst affected wards, should it

## Local economy

help to provide accommodation and job opportunities to such communities.

Housing provision close to the City and surrounding employment hubs (for example the Global Life Sciences sector) could also help to improve graduate retention (access to higher quality jobs) and fill gaps in the market (leisure and creative industries), which is something that is currently lacking across the whole of Charnwood.

Conversely, development could potentially involve the redevelopment of existing areas of employment land (several site options in this area consist of employment land at present). This could potentially have minor negative effects with regards to the supply of employment land (though alternative sites would likely be brought forward through the local plan review).

Overall, **minor positive effects** are predicted.

Option 4 (2,500 dwellings) proposes a slightly lower level of growth than options 1 and 2, which lessens the potential for significant positive effects. However, the loss of existing employment land would also be less likely to occur. On balance, **minor positive effects** are predicted.

Option 3 proposes the least amount of growth in these locations, at a level that might be expected to come forward in the absence of the plan anyway. Therefore, **neutral effects** are predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

Option 5 (3,300) and 6 (3,300) are likely to lead to similar effect as discussion in option 1 above. Therefore, **minor positive effects** are predicted.

Option 7 (3,900) is likely to bring forward the same positive effects as option 5 & 6, but an additional strategic site to the edge of Thurcaston will bring forward an additional 600 dwellings. This would be well-connected to the Leicester Western bypass with strong links in Leicester City Centre. There could still be a loss of existing employment areas though. Congestion into the City may also increase more than for any other option, but only slightly. At this high scale of growth a **potential significant positive effect** is predicted, as a large amount of development would be located in areas that are the focus of economic growth. The potential for housing to affect existing employment areas casts some doubt on the significance of effects though (hence the uncertainty).

### Hybrid Option (7,800 homes in total)

The level of growth involved should help to secure a substantial amount of homes in locations that have good access to jobs. Similar to options 1, 2 and 4 there could be loss of existing employment land for housing growth (though to a lesser extent), but this would not affect the ability to meet overall employment land needs for the borough. Consequently, **minor positive effects** are predicted.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 involve no growth in the 'other settlements' and so **neutral effects** are predicted. A small amount of growth would still occur in these smaller settlements through windfall development and existing commitments, and so a lack of additional growth in these locations would not be expected to lead to negative effects on the economy.

Option 3 involves a limited amount of growth at the other settlements. In general, the smaller towns and villages already struggle to provide local job opportunities for skilled workers. Therefore, growth in these locations would be likely to result in greater levels / distances of commuting. Growth in the rural areas would also do little to address regeneration, as most of these locations are affluent. It would also draw investment away from more suitable locations for economic growth such as the Service Centres, LUA and Loughborough/Shepshed.

Given that the magnitude of growth here is low, only **minor negative effects** are predicted. Conversely, increased housing in these areas could help to support an increase in spending in the 'other settlements', which ought to be positive for local businesses in these areas. **Minor positive effects** are therefore predicted for option 3 as well. This does not constitute neutral effects though overall. Rather, there could be benefits in some respects, but negative implications in others.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 involve no growth in the 'other settlements' and so **neutral effects** are predicted.

## Local economy

Option 6 proposes a similar, yet slightly higher level of growth at selected settlements compared to option 3.

This is likely to increase the magnitude of effects, but they would still not be significant in the context of growth across the borough. Therefore, mixed effects are predicted (i.e. **minor positive effects** and **minor negative effects**).

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3, but more than options 1, 2 and 4). Despite the lower growth, there could still be **minor negative effects** generated, but this would be less likely. Likewise, the potential for positive effects would still exist, but with greater uncertainty.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 3 do not propose growth at standalone new settlements, and therefore effects are predicted to be **neutral**.

Option 4 (1,000 dwellings) would deliver standalone settlement at Cotes. This is somewhat detached from urban centres, but should provide access to jobs in Loughborough (though probably by car). Growth would support accommodation for workers, though this location is not ideal in terms of access to jobs. Nevertheless, positive effects would be generated. The effects on existing settlements would be more limited, as growth would create new settlements / local centres in their own right. Therefore, the effects for existing communities would be limited.

Overall, **minor positive effects** are predicted. Whilst the a new settlement would provide accommodation for the working age population, the benefits for existing communities would be limited, and the location is not ideally related to jobs (without access to a car).

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 do not propose growth at new/expanded settlements, and therefore effects are **neutral**.

Option 7 proposes a higher level of growth at Cotes compared to option 4; however, this would not lead to significantly different effects.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### **Overall effects**

Option 1 focuses growth around the LUA and Loughborough, which are key areas of economic activity in the Borough. This should locate housing in areas with good access to employment and allow continued economic growth in key locations. The scale of growth at Loughborough and Shepshed could also help to strengthen links between these two areas. **Significant positive effects** are generated overall despite there being neutral effects in other areas of the Borough.

Option 2 would not generate significant positive effects at Loughborough, but would have benefits at Shepshed to a greater extent and the Service Centres. On balance, the effects generated across the Borough ought to be **minor positive effects**. The benefits are less pronounced compared to option 1, as there is a lack of growth in Loughborough which is the principal settlement and a focus of economic activity.

Option 3 is a dispersed settlement hierarchy approach. This approach is unlikely to generate significant positive effects as a result of growth in any particular location. Furthermore, it does not make the most of the opportunities to provide housing at the LUA (which would support access to jobs in the City and could possibly help tackle deprivation). Directing a proportion of growth to smaller settlements could also be negative with respect to commuting, but positive for those local centres. On balance, **minor positive effects** are predicted overall.

Option 4 directs a proportion of the total growth to a new settlement, which reduces the potential for positive effects at Loughborough and the service centres. No significant positive effects are predicted in any particular settlement, or as a result of the total quantum of development. Consequently, a **minor positive effect** is predicted.

## Local economy

Options 5, 6 and 7 all involve higher levels of growth across the borough as a whole, which would support increased economic growth, create more jobs in the development industry, and support increased spending and inward investment. However, this scale of housing provision could attract increased migration and increase competition for jobs, which is a minor negative effect for each option overall. In some locations it could also lead to increased congestion and a loss of existing employment land, which would be potentially negative from an economic perspective. The increased scale of growth involved in the service centres, at Loughborough and Shepshed ought to generate significant positive effects for all three options, whilst option 4 would also generate significant effects at the LUA. Due to the much higher levels of growth in Loughborough for option 5, a minor negative effect is also recorded. For Option 6, a minor negative effect is recorded in relation to the focus of 2200 homes in less accessible locations with poorer links to employment growth.

The Hybrid option should generate positive effects in the majority of the main settlements, which is positive for a range of local centres and communities. A fairly substantial element of growth would be directed towards areas of economic importance such as Loughborough and the LUA, which is positive, but not significant. Overall, it is predicted that **minor positive effects** will occur. This reflects the widespread benefits that could be generated, but also the fact that these would be mostly minor in nature, and in some instances uncertain.

	Service centres	Loughborough	Shepshed	LUA	Others	New settlement	Overall effects			
<b>Scenario A - 8,100 homes</b>										
Option 1: Urban Concentration A	0	++	0	+	0	0	++			
Option 2: Urban Concentration B	+	0	++ <sup>?</sup>	+	0	0	+			
Option 3: Settlement Hierarchy	+	+	+	0	+	-	+			
Option 4: Urban Concentration and New Settlement	+	+	+	+	0	+	+			
<b>Hybrid Option</b>	+ <sup>?</sup>	+	++ <sup>?</sup>	+	+ <sup>?</sup>	- <sup>?</sup>	+			
<b>Scenario B - 15,700 homes</b>										
Option 5: Urban Concentration (high)	++	++	-	++	+	0	0	++	-	
Option 6: Settlement Hierarchy	++ <sup>?</sup>	++	++	++	+	+	-	0	++	-
Option 7: Urban Concentration and New Settlement	++	++	++	++ <sup>?</sup>	0	+	+	++	++	-

## Accessibility

### Service centres:

#### Scenario A (Discussion of options for delivering 8,100 homes)

Option 1 involves a relatively low amount of growth at the service centres. The effects in terms of additional traffic and congestion would therefore be likely to be minimal. New development would be located in settlements that have access to most services and facilities, as well as public transport route. However, the opportunity to contribute towards new infrastructure / improvements would be more limited. Consequently a **neutral effect** is predicted.

Option 4 involves almost double the amount of development at the service centres compared to option 1. At this scale of growth the additional trips generated would still not be expected to cause notable impacts on road networks at individual settlements. The amount of growth would still be unlikely to support new facilities (schools, healthcare etc.), but it is assumed contributions would be sought for enhancements as necessary. Capacity at schools and health facilities is known to be an issue in some locations and should it not be possible to expand facilities, then there could be additional pressure meaning that some people need to travel further afield to access services or may experience difficulties accessing services locally. Overall a **minor positive effect** is predicted.

Option 3 involves a further 100 dwellings at each service centre except for Mountsorrel. New residential development in these locations would have broadly good access to jobs, services and public transport; which is a **minor positive effect**. However, there could be pressure on certain services which may not be possible to address through the expansion of existing facilities. The scale of development involved may still not be sufficient to support entirely new health facilities. However, other forms of social infrastructure should be improved such as open space provision, walking and cycling infrastructure and schools. An additional 300 homes could potentially lead to localised increases in traffic, which is a **potential negative effect**, but effects would not be significant.

Option 2 would involve the greatest amount of growth at the service centres. This would ensure that a substantial proportion of new development is located in broadly accessible settlements. There should also be better opportunities to secure improvements to community infrastructure, and to support new or expanded health and education facilities. A **potential significant positive effect** is therefore predicted alongside a **minor negative effect**.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5, 6 and 7 all involve substantially more growth in the Service Centres compared to the options under scenario A. This could lead to increased pressure in terms of traffic and congestion, but this would not be concentrated in one location as such. However, access to services ought to be relatively good for new development (though the necessity for a higher level of growth could mean that the more distant sites at the urban fringes may be developed).

Growth at this level could provide the critical mass for new local facilities, particularly at larger sites. This should have benefits for existing and new communities and generate **significant positive effects**.

#### Hybrid Option (7,800 homes in total)

This involves slightly less growth in the service centres than Option 4. Presuming a broadly similar distribution amongst the service centres, the effects are therefore predicted to be the same (i.e. **minor positive effects**).

### Loughborough

#### Scenario A (Discussion of options for delivering 8,100 homes)

Loughborough possesses a wide range of local facilities and services, including good public transport links. Access to jobs would also be good given the opportunities in Loughborough itself and links to Leicester and Derby via train. Development in the urban area would therefore have excellent accessibility. Growth at the urban fringes would be less well connected with regards to existing local services, but would be likely to have good public transport access. The scale of some sites at the urban fringe could also be more likely to support on-site facilities that could benefit new and existing communities.

Option 1 involves the greatest amount of growth under this scenario (4,000 dwellings). A proportion of growth would likely come forward in the urban area, which would have very good accessibility. There would also be a requirement for substantial growth at the urban fringes to the south. At the level of growth involved, the critical mass would be created to support new facilities, which should help to ensure that new developments have good accessibility as well as offering some benefit to surrounding communities. Large-scale development at the edge of the urban area would increase car trips into Loughborough and towards strategic routes such as the A6 and the M1. In the absence of strategic infrastructure improvements this could lead to negative effects with regards to congestion.

## Accessibility

However, should development be of a scale that supports enhanced road links and expanded public transport networks, traffic could potentially be directed away from the centre of Loughborough. On balance, **significant positive effects** could be generated, but this carries a degree of uncertainty. A **minor negative effect** is predicted to reflect the potential for increased traffic on local roads (though this is also uncertain / dependent upon whether road and bus networks can be enhanced in advance of any development in this area).

Option 2 involves a relatively limited amount of growth in Loughborough. This could be accommodated in the urban area itself which would ensure developments had excellent links to jobs, retail, leisure and other forms of social infrastructure. The scale of growth involved ought to be possible to accommodate through existing infrastructure, and is unlikely to lead to a significant amount of traffic increases. Overall, the effects are predicted to be uncertain positive effects.

Options 3 and 4 involve 2,000 homes and would still place development in accessible locations. A proportion could be met in the urban area on sites with very good accessibility to jobs, services, retail and public transport. However, there would also be a requirement for release of land at the urban fringes to the south west. This would likely be at a scale that would support new facilities such as a primary school, a local centre and open space. It should therefore be possible to ensure that new development is broadly accessible. Conversely, the increased scale of growth could potentially put some pressure on road networks, though this would be dependent upon whether strategic infrastructure improvements could be secured (which may be less likely at a lower scale of growth to contribute financially). On balance, a **minor positive effect** is predicted.

### Scenario B (Discussion of options for delivering 15,700 homes)

The scale of growth involved for Option 6 is similar to that involved for Option 1 (700 dwellings lower). The effects are therefore likely to be broadly the same. The lower amount of development would put less pressure on the road networks, but on the other hand would not contribute as substantially towards infrastructure improvements. The potential for significant positive effects is therefore less certain in comparison to Option 1.

Option 7 involves an additional 600 dwellings compared to option 1. This would add pressure to the local transport networks, which could potentially generate more negative effects. Conversely, there would be increased contributions towards infrastructure enhancements, which ought to have benefits with regards to accessibility. On balance, the effects are broadly the same as for Option 1 (i.e. **minor negative effects** coupled with **significant positive effects**).

Option 5 involves the highest scale of growth for any option, and would be more likely to generate an increase in traffic in this location in particular. There is therefore potential for **significant negative effects**. Conversely, **significant positive effects** are likely with regards to accessibility to services and facilities for a substantial amount of new homes. Furthermore, there ought to be increased contributions towards the improvement of social and physical infrastructure that could reduce the need to travel. In the longer term, this could reduce the negative effects.

### Hybrid Option (7,800 homes in total)

This involves the same amount of growth in Loughborough as Option 4. Therefore the effects are predicted to be the same (i.e. **minor positive effects**).

## Shepshed

### Scenario A (Discussion of options for delivering 8,100 homes)

A relatively small amount of development is involved for option 1. If located in the urban area, accessibility ought to be relatively good, as there is a range of services and jobs available in Shepshed and also nearby at Loughborough. There could be some increased pressure on local services and road networks, but this should be possible to mitigate given the low scale of growth involved. Should development be at the urban fringes, accessibility would be slightly poorer, and may not create the critical mass for new services. On balance, the effects are predicted to be **neutral**.

Options 2 and 3 would require greater greenfield land release to the west of Shepshed. At the scale involved, there should be the critical mass to support new primary school facilities, open space and walking and cycling links. This is a **minor positive effect**. With regards to traffic and congestion, development at the urban fringe could increase trips into the town centre, and also on routes towards Loughborough such as the A512. The growth involved would be unlikely to be supported by significant new transport infrastructure. In this respect, a potential **minor negative effect** is predicted.

## Accessibility

Option 4 involves a lower amount of growth than options 2 and 3 (700 dwellings less). Whilst this ought to reduce the potential for negative effects, the benefits in terms of new community facilities are less likely to be positive though also.

### Scenario B (Discussion of options for delivering 15,700 homes)

Each option under scenario B involves slightly more growth at the urban fringes compared to options 2 and 3. The potential for positive effects remains the same, whilst minor negative effects are more likely to occur as a result of increased car trips. The increase does not generate significant effects though.

### Hybrid Option (7,800 homes in total)

This involves only slightly less growth at Shepshed compared with Option 2. Consequently, mixed effects (minor positive and minor negative) are predicted.

## Leicester Urban Area:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2 and 4 (to a slightly lesser extent) involve the same level of growth at the Leicester Urban Area (more than a third of the total growth for the Borough). These areas have broadly good access to services and facilities with a GP in Syston and two GPs in both Birstall and Thurmaston. There are also multiple primary schools in the area and three secondary schools. Public transport access is reasonable, with links to the City helping to reduce the distance needed to access jobs and a wide range of cultural and recreational facilities. Though this level of growth could impact upon traffic, new and existing residents should still benefit from good accessibility; with potential improvements being achieved through development contributions. Consequently, a **potential significant positive effect** is predicted in this respect. However, in terms of car based travel, an increase in growth in this particular location could have **minor negative effects** in the absence of sufficient mitigation.

Option 3 would involve a much smaller amount of development, and so whilst new development would still be well located, the opportunity to enhance facilities would be much lower. Therefore, an **uncertain minor positive effect** is predicted. Negative effects in terms of congestion would be less likely to occur though.

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6 would involve similar levels of growth (only 300 more dwellings) to options 1 and 2. Therefore the effects are broadly the same (i.e. potential significant positive effects couples with minor negative effects).

Option 7 would involve a higher amount of development, and so **significant positive effects** could be generated with regards to locating homes in accessible locations. However, increased traffic and congestion could offset the benefits of placing new homes in close proximity to the City, which is a **minor negative effect**.

### Hybrid Option (7,800 homes in total)

The level of growth would be positive with regards to locating new homes in close proximity to jobs and higher order settlements that are accessible by public transport.

## Other settlements:

### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1, 2, and 4 do not involve any growth at the smaller settlements, which is a **neutral effect** in terms of accessibility in these areas. However, a lack of growth in these areas would not help to support improvements to rural accessibility (which might otherwise benefit from developer contributions).

Option 3 involves some growth at other smaller settlements.

Many of these settlements do not have as wide a range of local facilities, and therefore, accessibility is broadly poorer for residents in these communities. The amount of development involved is unlikely to create a critical mass to support new facilities at any one settlement, but may have some minor beneficial effects on community infrastructure. Overall, a **minor negative effect** is predicted though, as a proportion of new homes in the borough would be located in less accessible locations.

## Accessibility

### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 7 do not involve growth at the other settlements and so **neutral effects** are predicted.

Option 6 involves slightly higher growth than option 3, and so more development would be located in areas with poorer accessibility. However, the higher level of growth could better support new facilities in rural areas (though not to the extent that new facilities would be created). This offsets the negative effects somewhat, and so a **minor negative effect** is still predicted overall.

### Hybrid Option (7,800 homes in total)

The level of growth involved at the other settlements would be relatively low (lower than option 3). Therefore, the amount of homes located in less accessible locations would not be as great, and so neutral effects are predicted.

### **New / expanded settlements:**

#### Scenario A (Discussion of options for delivering 8,100 homes)

Options 1-3 do not involve growth at new settlements, and so **neutral effects** are predicted.

Option 4 involves growth at a new settlement in Cotes. This area currently has poor access to services and facilities locally, but is relatively close to Loughborough. Unless the new settlements generate the critical mass to support new schools and health facilities, these communities will need to travel to access basic services. Access to cultural and community facilities in these locations would also be dependent upon developer contributions.

The level of growth involved ought to support new primary facilities, but it is unlikely new secondary schools would be supported. Likewise, satellite health facilities could be supported, but the likelihood of large new health facilities would be uncertain.

Access to public transport would also be dependent on new or amended services being secured. Given the potential for a large amount of growth to be located in areas of relatively poor accessibility, and the uncertainty of new facilities being secured, an **uncertain negative effect** is predicted at this stage.

#### Scenario B (Discussion of options for delivering 15,700 homes)

Options 5 and 6, are predicted to have **neutral effects** as they involve no growth at new settlements.

Option 7 is predicted to have an **uncertain negative effect**, as it involves a new settlement. The higher scale of growth could potentially make new services more viable, which would be positive. Conversely, more homes would be located in an area that does not have strong access to local services.

### Hybrid Option (7,800 homes in total)

The hybrid option would have **neutral effects** as there is no proposed growth in a new settlement.

### **Overall effects**

Option 1 is predicted to have mixed effects. The majority of new development would be located in locations with good access to jobs and services (Loughborough and the Leicester Urban Area). The focused scale of growth would also help to support infrastructure improvements. Consequently, a potentially significant positive effect is predicted in terms of accessibility for these areas. With regards to all other settlements across the borough, effects are likely to be neutral. On the other hand, focused growth could lead to potential negative effects with regards to increased congestion and car trips, which is a minor negative effect from a borough-wide perspective.

Option 2 is predicted to have mixed effects. The broad locations proposed for growth are relatively accessible, and so positive effects are likely to be generated across the borough. In particular, there could be significant positive effects with regards to the service centres and the Leicester Urban Area. Given that there are benefits across the borough, a significant positive effect is predicted overall. Minor negative effects are predicted also, as there could be some local issues relating to traffic at several locations. However, in combination, these are not considered to be significant negatives.

Option 3 is predicted to have mixed effects. Due to a more dispersed pattern of growth, the benefits relating to infrastructure improvement are more limited at any particular settlement. Therefore, only minor positive effects are predicted overall. The impacts in terms of traffic and congestion are likely to be less pronounced, but a lower level of growth in settlements could be pressure on services and facilities without creating the critical mass for new facilities. Consequently, minor negative effects are also predicted.

## Accessibility

Option 4 has similar effects to option 2, but the positive effects at the service centres are less and there are potential negatives associated with a new settlement. Consequently, there are greater uncertainties about the significant positive effects occurring.

Options 5, 6 and 7 all involve much higher levels of growth overall across the borough. This is reflected by an increased amount of negative effects across the district, with these being potentially significant at Loughborough for Option 5. However, each option is also more likely to provide opportunities to support enhanced and new schools, healthcare, recreation and jobs (due to greater contributions from development). In particular, support could help to secure strategic road infrastructure improvements.

The hybrid option is predicted to have a **minor positive effect** overall. In the main, new homes will be located in accessible locations with regards to jobs, local services and access to public transport. Only small amounts of growth would be located in the less accessible locations. As there is no major concentration of growth in any particular settlement, it is also less likely that negative effects in terms of congestion and traffic would occur. From a borough-wide perspective, this is a minor positive effect, but this could perhaps be significant with the introduction of infrastructure improvements and other initiatives.

	Service centres		Loughborough		Shepshed		LUA		Others	New settlement	Overall effects	
<b>Scenario A - 8,100 homes</b>												
Option 1: Urban Concentration A	0		++ <sup>?</sup>	- <sup>?</sup>	0		++ <sup>?</sup>	-	0	0	++ <sup>?</sup>	- <sup>?</sup>
Option 2: Urban Concentration B	++ <sup>?</sup>	-	+ <sup>?</sup>		+	-	++ <sup>?</sup>	-	0	0	++	-
Option 3: Settlement Hierarchy	+	- <sup>?</sup>	+		+	-	+ <sup>?</sup>		-	0	+	-
Option 4: Urban Concentration and New Settlement	+		+		+ <sup>?</sup>	- <sup>?</sup>	++ <sup>?</sup>	-	0	- <sup>?</sup>	++ <sup>?</sup>	- <sup>?</sup>
<b>Hybrid Option</b>	+		+		+	-	+		0	0	+	
<b>Scenario B - 15,700 homes</b>												
Option 5: Urban Concentration (high)	++	-	++	-- <sup>?</sup>	+	-	++ <sup>?</sup>	-	0	0	++	-- <sup>?</sup>
Option 6: Settlement Hierarchy	++	-	++ <sup>?</sup>	- <sup>?</sup>	+	-	++ <sup>?</sup>	-	-	0	++	-
Option 7: Urban Concentration and New Settlement	++	-	++	-	+	-	++	-	0	- <sup>?</sup>	++	-

	Landscape character	Biodiversity	Water quality	Flood Risk	Soil resources	Air quality	Climate change	Historic Environment	Deprivation	Healthy lifestyles	Housing	Local Economy	Accessibility	Minerals					
<b>Scenario A – 8,100 homes</b>																			
Option 1	--	-	+ <sup>?</sup>	- <sup>?</sup>	- <sup>?</sup>	--	-- <sup>?</sup>	+	-	++	+	+	++	++ <sup>?</sup>	- <sup>?</sup>	-			
Option 2	-- <sup>?</sup>	-	+ <sup>?</sup>	- <sup>?</sup>	0	--	-	+	- <sup>?</sup>	++	+	++ <sup>?</sup>	+	++	-	-			
Option 3	- <sup>?</sup>	- <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	0	--	- <sup>?</sup>	0	-	+	0	++	+	+	-	-			
Option 4	--	- <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	- <sup>?</sup>	--	-	+	--	+	+ <sup>?</sup>	+	+	++ <sup>?</sup>	- <sup>?</sup>	-			
Hybrid Option	-	- <sup>?</sup>	+ <sup>?</sup>	- <sup>?</sup>	0	--	- <sup>?</sup>	+	- <sup>?</sup>	+	++ <sup>?</sup>	++	+	+	-	-			
<b>Scenario B – 15,700 homes</b>																			
Option 5	--	--	+ <sup>?</sup>	-	-	--	-- <sup>?</sup>	-	--	++	-	++	-	++	++	-	++	-- <sup>?</sup>	-
Option 6	--	-- <sup>?</sup>	+ <sup>?</sup>	-	-	--	-- <sup>?</sup>	-	--	++	-	++	--	++	++	-	++	-	-
Option 7	--	--	+ <sup>?</sup>	-	-	--	-- <sup>?</sup>	-	--	++	-	++	-	++	++	-	++	-	-

## **Summary and comparison of options**

Option 1 and 2 perform similar, but 2 is slightly less likely to cause negative effects regarding flood risk, air quality and the historic environment. Option 2 could potentially be more positive from a housing perspective and in terms of securing accessibility improvements. The differences are fairly small, but of the two urban concentration approaches, Option 2 performs marginally better.

Options 3 and 4 are both less negative with regards to landscape and biodiversity (compared to options 1 and 2). However, they are both less positive on socio-economic factors (economy, healthy lifestyles, deprivation) and option 4 in particular could generate significant negative effects with regards to heritage and landscape.

With regards to housing delivery (which is a critical plan objective), Option 3 performs most positively under Scenario A. However this option is weaker than the urban concentration options (1 and 2) in terms of economy and employment, healthy lifestyles, deprivation, accessibility and climate change.

Options 5, 6 and 7 each perform worse from an environmental perspective, which is to be expected given the higher scale of growth. In particular, significant negative effects could be generated with regards to landscape, biodiversity, air quality and the historic environment (regardless of the distribution options). The positive effects in terms of housing, regeneration and the economy are more prominent for each option as well. but the increased growth also raises the possibility of negative implications for certain communities. In this regard, option 6 stands out due to the fact it generates potentially significant negative effects in relation to health and recreation (due to potential negative effects on the Charnwood Forest in particular). There is less to differentiate the higher growth options from one another as all three involve substantial growth in Loughborough, the Service Centres, Shepshed and the LUA.

The choice of site locations, coupled with plan policies will help to determine these effects in greater detail, whichever growth option is pursued.

## **Summary of the Hybrid option**

The hybrid option was developed by the Council taking into account the strengths and weaknesses of the refined spatial options. A key aim was to avoid significant negative effects, which the hybrid option achieves with the exception of soil resources. All of the options are predicted to have significant negative effects upon soil, and this is considered unavoidable given the amount of greenfield land that would be lost. However, the site selection process could help to minimise the effects by avoiding Grade 2 and 3a land if possible.

From a wider environmental perspective, the Hybrid Option performs better than any of the options. The distribution of growth ought to allow for negative effects to be avoided in most settlements, or the potential for mitigation and enhancement to be secured with regards to biodiversity, landscape character and the historic environment. With positively prepared policies to support the strategy, positive effects may even be achieved against these factors.

The approach will allow for sites to be selected that are not at major risk of flooding, keeping in line with the sequential approach.

The picture with regards to socio-economic effects is positive. Whilst the Hybrid Option does not perform as well as the urban concentration options with regards to deprivation and accessibility, the effects are still positive for these factors. Furthermore, the Hybrid Option benefits from the pronounced positive effects upon health and housing, which are associated with a more dispersed approach to development.

## APPENDIX E: APPRAISAL OF EMPLOYMENT ALTERNATIVES

This appendix sets out an appraisal of the three employment options which are introduced and described in Section 5 of the Interim SA Report. These are as follows:

1. Rely on existing employment allocations identified in the Core Strategy and 2004 Borough of Charnwood Local Plan.
2. Identify new employment land to facilitate regeneration and release poorer quality employment sites for alternative uses.
3. Identify new employment land to respond to demand for large warehousing.

The methods used to identify significance are the same as those outlined in Appendix C, which dealt with housing options. In summary each employment option has been appraised as follows:

- The SA Objectives / framework forms the basis for appraising each option.
- A table is prepared for each SA Objective which sets out a discussion of the effects for each option based upon an assessment of significance.
- To determine significance reference is made to the SEA Directive factors such as the *nature, magnitude, timescale, likelihood, permanence and scale of effects*.
- As well as a discussion of the effects an overall 'effects symbol' is provided for each option to indicate significance.

The following tables have been used to visualise the nature of effects for each option against each SA Objective. Where there is uncertainty, the nature of such effects has been identified. For example, an uncertain negative effect would be recorded if there is a chance that negative effects could occur but this is dependent upon unknown factors. It may still be possible to rule out significant effects though, and so the unknown effect may be minor or potentially significant.

Effects Significance	Effects symbol
<i>Significant positive effects</i>	++
<i>Minor positive effects</i>	+
<i>Neutral effects</i>	0
<i>Minor negative effect</i>	-
<i>Significant negative effect</i>	--

Uncertain effects	Effects symbol
<i>Uncertain significant positive effect</i>	++?
<i>Uncertain minor positive effect</i>	+?
<i>Uncertain effects</i>	?
<i>Uncertain minor negative effect</i>	-?
<i>Uncertain significant positive effect</i>	++?

## Landscape Character

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

All of the options propose a similar quantum of employment growth and this is predominantly located in the same areas. A significant proportion of the proposed development is already committed; however, there are some minor differences in the location of some of the non-committed (around 10ha) employment land proposed under Options 2 and 3.

The effects for option 1 are considered to be **neutral** given that much of the growth involved is already committed or tested through previous plan-making processes. Continuation of this strategy is unlikely to have any notable effects with regards to landscape (though an unplanned approach would be more likely to generate negative effects).

Option 2 would result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This 10ha of employment land would be delivered in the south of the borough along the northern fringe of Leicester City. It is important to note that the precise location of sites to deliver this 10ha is unknown at this stage. The Landscape Character Assessment considered the landscape capacity of ten zones to the north of Leicester City. It concluded that the majority of zones in this area have medium to medium/high capacity to accommodate development, with only one zone to the south of Rothley identified as having medium to low capacity.<sup>17</sup> While there is the potential for this option to deliver some of this new employment land on brownfield land this is uncertain at this stage. The nature and significance of effects will depend on the precise location of development; however, it is considered unlikely that it would have a significant negative effect on the landscape given the findings of the Landscape Character Assessment. Consequently a **neutral effect** is predicted.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. The additional site proposed under Option 3 falls within a zone identified through the Landscape Character Assessment as having high capacity to accommodate development due to the areas weak landscape characteristics, parts of which are in poor condition.<sup>18</sup> Option 3 is therefore considered unlikely to have a significant effect on landscape and there are no significant differences compared to Options 1 and 2.

In summary, there are no significant differences between the options at a borough scale. There is likely to be differences in terms of localised effects on the landscape as a result of Options 2 and 3 but evidence suggest that there is capacity to accommodate development in these areas, although there is some uncertainty for Option 2 as the precise location of development is not known at this stage. Overall, once mitigation is taken into account there is the potential for a residual **neutral effect** for each option.

<sup>17</sup> Charnwood Borough Council (2012) Borough of Charnwood Landscape Character Assessment.

<sup>18</sup> Ibid.

## Biodiversity

Option 1

0

Option 2

-?

Option 3

-

### Appraisal commentary

As previously stated, all of the options propose a similar quantum of employment growth and this is predominantly located in the same areas. A significant proportion of the proposed development is already committed; however, there are some minor differences in the location of some of the non-committed (around 10ha) employment land proposed under Options 2 and 3.

Though the precise location of development is not defined for option 2, it is unlikely that sites to deliver the 10ha would contain any nationally designated sites for biodiversity. There is flexibility in site choice to allow for locally important habitats to be avoided, but several potential locations for development are adjacent to Watermead Country Park which is a Site of Importance for Nature Conservation. There is therefore a possibility that employment growth associated with this option could have adverse effects on wildlife due to disturbance at construction and operation (for example increased noise, lighting etc.). Given that there are already several committed sites in this location too, the potential for cumulative negative effects exists. An **uncertain (negative) effect** is identified at this stage.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated to the south east of Shepshed, north east of M1 Junction 23. There are no designated sites for biodiversity within or adjacent to the site and it is unlikely that there would be any significant negative effects on biodiversity as a result of development once mitigation is taken into account. However, the Newhurst Quarry SSSI is within 200m of the site. The SSSI risk zones suggest that industrial / warehousing development over 1000sqm could potential have effects that will need to be tested. Given that the total floorspace would likely exceed this, the potential for negative effects exists. A **minor negative effect** is therefore predicted at this stage.

In summary, there are no significant effects likely to be generated for any of the options with regards to biodiversity. However, Option 2 could result in more localised effects on biodiversity to south of the borough through the redistribution of 10ha of employment land but the nature and significance of effects are uncertain as the precise location of development is not known. Option 3 is likely to result in more localised effects on biodiversity to the south east of Shepshed, particularly associated with the Newsome Quarry SSSI. However, with mitigation in place, it is considered unlikely that the effects would be significant.

## Water quality

Option 1

0

Option 2

?

Option 3

?

### Appraisal commentary

There is little to differentiate between the options in terms of potential effects on the water environment. There is the potential for different localised impacts depending on the location of the redistributed 10ha of employment land under Option 2, particularly if sites are located close to waterbodies such as Watermead Country Park. The additional 10ha of employment land under Option 3 is located on land that is intersected by a minor watercourse, which could potentially be affected by development.

However for both options, effects are unlikely to be of significance once mitigation is taken into account, including the integration of SUDs to manage impacts.

Where actively used agricultural land is changed to employment uses, this could have positive effects upon water quality as there may be less run-off of nitrates; however, this is uncertain at this stage.

Overall, it is predicted that Options 1 will have a residual **neutral effect** on this topic, / Options 2 and 3 are also expected to have a neutral effect, but there is a small degree of uncertainty given that the exact location of sites is unknown.

## Flood Risk

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

The River Soar flows through the borough and Leicester City so there are areas of high fluvial flood risk to the south of the borough along the fringe of Leicester City (which is of relevance to Option 2). Though some potential development sites are adjacent to areas of high flood risk (or overlapped slightly) it is assumed that areas of high flood risk would be avoided where possible, follow sequential and exception tests and implement suitable mitigation as necessary.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated to the south east of Shepshed, north east of M1 Junction 23. There are small areas of high flood risk (Zone 3) on the site but it is likely that development could avoid these areas or suitable mitigation provided as part of any proposal for development.

Overall, there are no significant differences between the options and it is predicted that they will all have a residual **neutral effect** on flood risk.

## Soil resources

Option 1

0

Option 2

-

Option 3

-

### Appraisal commentary

As previously stated, all of the options propose a similar quantum of employment growth and this is predominantly located in the same areas. A significant proportion of the proposed development is already committed or allocated. Therefore the effects are predicted to be **neutral** for option 1.

There are some minor differences in the location of some of the additional (around 10ha) employment land proposed under Options 2 and 3.

Option 2 would result in the delivery of 10ha of employment land to the north of Leicester City where there are areas of Grade 2, 3 and 4 agricultural land. At this stage the precise location of development is not known so there is uncertainty about the effects. However, the majority of available sites involve some agricultural land, so it is likely that there will be at least 5ha of land affected. Whether this would be grade 2 or 3 is unknown. A **minor negative effect** is predicted.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated to the south east of Shepshed, north east of M1 Junction 23. The site is predominantly made up of Grade 3 agricultural land and at this stage it is not known if this is Grade 3a or 3b. The loss is recorded as negative, but the effects are not significant in the context of the resources present at a borough scale.

In summary, all of the options could potentially result in the loss of best and most versatile agricultural land. However, the majority of this is committed development, and so neutral effects are predicted for Option 1. For option 2, the replacement sites could potentially involve a loss of agricultural land, whereas those low quality sites that are replaced do not. Therefore, a minor negative effect is predicted. As option 3 involves a greater amount of development overall, the effects are slightly more negative compared to option 2. However, there are no significant differences between options 2 and 3 at a borough scale.

## Air quality

Option 1

0

Option 2

-?

Option 3

-

### Appraisal commentary

As previously stated, Option 1 is considered to represent a business as usual approach and so the effects with regards to air quality are predicted to be **neutral**.

Option 2 will result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This 10ha of employment land would be delivered in the south of the borough along the northern fringe of Leicester City. It is important to note that the precise location of sites to deliver this 10ha is unknown at this stage. The delivery of additional employment could increase traffic on the strategic highway network in this area, including the A46, A6 or A406, but the significance of this is uncertain at this stage and dependent on the precise location of development and level of mitigation provided. However, given that the quantum of employment provision in this broad location would remain unchanged compared to Option 1, the effects are also predicted to be neutral. It is unlikely that significant effects would occur (though increased traffic through Syston may be generated dependent upon site selection).

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. This option would be likely to primarily increase traffic, including Heavy Goods Vehicles (HGVs), along the M1 as well as increase pressure on the capacity of Junction 23 and on local connecting roads. Consequently, there may be adverse effects on air quality in this part of the borough. However, the effects are not considered likely to be significant given that the latest monitoring data for NO<sub>2</sub> in close proximity to this site shows that levels of notably below target objectives. Consequently only a **minor negative effect** is predicted.

Overall, there is the potential for differences in terms of localised impacts as a result of Options 2 and 3; however, these are unlikely to be significant once mitigation is taken into account. The effects for Option 2 are more uncertain, whilst a minor negative effect is identified for Option 3.

## Climate change

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

As previously stated, all of the options propose a similar quantum of employment growth and this is predominantly located in the same areas. Options 2 and 3 however involve 10ha additional employment land, which is likely to generate increased carbon emissions and require energy to support operations and transportation. The location of development under both options 2 and 3 is likely to lead to increased transportation to access the sites for the workforce and also for operational activities (particularly for option 3 which would be more likely to involve increased numbers of HGVs). From a Borough-wide perspective however, the effects on the baseline position are unlikely to be notable given the scale of growth involved.

None of the options provide any significant additional opportunities to incorporate renewable energy operation over the others. Therefore neutral effects are predicted in this respect.

In summary, there are no significant differences between the options in terms of climate change and none are likely to have a significant effect. The residual effects are predicted to be **neutral**.

## Historic Environment

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

Option 1 is predicted to have neutral effects given that the majority of development is committed and / or allocated (with heritage issues likely to have been considered and mitigated satisfactorily if necessary).

Option 2 will result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This 10ha of employment land would be delivered in the south of the borough along the northern fringe of Leicester City. It is important to note that the precise location of sites to deliver this 10ha is unknown at this stage. There is a range of designated heritage assets spread across this area, including Listed Buildings, Scheduled Monuments and a Conservation Area.<sup>19</sup> Given the absence of heritage assets within or immediately adjacent to potential sites for development, it is likely that the employment land could be delivered without significant effects on the historic environment. The nature and significance of effects will ultimately be dependent on the precise location of the employment land and its design/layout.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. There are no designated heritage assets within or adjacent to the site. Taking the evidence into account it is therefore considered unlikely that Option 3 would have a significant effect on the historic environment.

Overall, there are no significant differences between the options at a borough scale. There is the potential for Options 2 and 3 to have more localised impacts on the historic environment in the south of borough and to the south east of Shepshed; however, given the relatively insensitive location of site options, and once mitigation is taken into account these are unlikely to result in significant effects. Consequently, **neutral effects** are predicted for each option.

<sup>19</sup> Charnwood Borough Council (2012) Borough of Charnwood Landscape Character Assessment.

## Deprivation

Option 1

0

Option 2

?

Option 3

+

### Appraisal commentary

In terms of deprivation there is little to distinguish between the options. All of them propose a similar quantum of employment growth and this is located predominantly in the same areas. Option 2 may have some minor localised benefits for communities and pockets of deprivation in the south of Borough through the delivery of 10ha of better quality employment land, which could help to improve access to higher quality employment opportunities. Better quality sites may also be more likely to be attractive to market and result in investment. There is therefore potential for some minor benefits compared to option 1, but there is a great deal of uncertainty given that it is unknown which sites would be developed, what type of jobs would be secured and whether deprived communities could access such jobs. In fact, certain higher skilled jobs may not be accessible to deprived communities with lower skills (but conversely could help to raise aspirations). Overall, an uncertain effect is predicted taking all of these factors into account.

Option 3 could have similar minor localised benefits through the provision of 10ha of employment land to the south east of Shepshed.

In summary, options 2 and 3 are likely to have some additional **minor positive effects** compared to option 1. However, the effects are not predicted to be significant, and there are no distinguishable differences between options 2 and 3 with regards to tackling deprivation.

## Healthy lifestyles

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

As for deprivation there is little to distinguish between the options in terms of healthy lifestyles. All of them propose a similar quantum of employment growth and this is located predominantly in the same areas. Option 2 may have some minor localised benefits for communities in the south of Borough through the delivery of 10ha of new employment land, which could improve opportunities to walk and cycle to employment. Option 3 could have similar minor localised benefits through the provision of 10ha of employment land to the south east of Shepshed. However, these factors are considered unlikely to have notable impacts on health, at least in the short and medium term.

With regards to open space and recreational facilities, the site options available for development do not contain formal open space or rights of way, and therefore effects are predicted to be neutral in this respect.

In summary, there are no significant differences between the options. Each option is predicted to have neutral effects with regards to healthy lifestyles, though Options 2 and 3 could have some minor positive benefits in the longer term should development involve green infrastructure enhancement and provide accessible jobs for local people.

## Housing

Option 1

0

Option 2

0

Option 3

0

### Appraisal commentary

The options will have broadly neutral effects on housing as they relate to the delivery of employment land during the life of the plan.

The provision of an additional 10ha of land for option 3 is not likely to lead to a substantial increase in the demand for housing, if at all. However, poorer quality sites that are released under Option 2 could potentially become suitable for housing delivery over time. The net change in housing provision as a result of this change in sites would be minimal though and therefore neutral effects are predicted.

## Local economy

Option 1

+

Option 2

+

Option 3

++

### Appraisal commentary

As previously stated, all of the options propose a similar quantum of employment growth and this is predominantly located in the same areas. A significant proportion of the proposed development is already committed or allocated; however, there are some minor differences in the location of some of the employment land proposed under Options 2 and 3.

For option 1, the implications of committed and allocated development is assumed to be understood and thus forms the 'business as usual' approach. However, commitment to this approach in the new Local Plan ought to ensure that the strategy remains appropriate in relation to economic growth. Therefore a **minor positive effect** is predicted.

Option 2 will result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This 10ha of employment land would be delivered in the south of the borough along the northern fringe of Leicester City (i.e. the same broad locations). Therefore, the effects on employment provision and investment are likely to be similar to option 1. However, the delivery of higher quality employment land may be more likely to attract investment in higher quality jobs, and therefore, a minor positive effect is predicted. The effects are likely to be localised given the nature of employment that would likely be appropriate on available sites for development in this area.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. This option would not only deliver an additional 10ha of employment land but also offers the opportunity to address demand for large warehousing that is not being delivered through the other options. Consequently, a **significant positive effect** is predicted.

In summary, all of the options have the potential for long term positive effects on the local economy through the delivery of employment land to meet identified needs. Whilst Option 2 would have a greater magnitude of positive effects compared to Option 1, the effects are still unlikely to be significant from a borough perspective. Option 3 has the potential for a positive effect of greater significance compared to the other options as it proposes the delivery of an additional 10ha of employment that will help to meet demands for larger warehousing that are not being met through other options.

## Accessibility

Option 1

0

Option 2

+<sup>?</sup>

Option 3

+

### Appraisal commentary

All of the options propose a similar quantum of employment growth and this is predominantly located in the same areas.

For option 1, the implications of committed and allocated development is assumed to be understood and thus forms the 'business as usual' approach. However, commitment to this approach in the new Local Plan ought to ensure that the strategy remains appropriate in relation to accessibility and transport impacts. Therefore **neutral effects** are predicted.

Option 2 will result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This additional 10ha of employment land would be delivered in the south of the borough, which has broadly good accessibility to Leicester City. Whilst this is positive, access to jobs is likely to be similar to option 1 as the sites developed would be within the same broad location. With regards to better quality jobs, it is perhaps more likely that these would be secured on higher quality sites, which could benefit communities in these areas and reduce the need to travel further afield to access such jobs. However, these effects are uncertain and likely to be minor. The effects on congestion and the road network would not be anticipated to be significant given the scale of growth and types of employment uses that would be expected to be delivered. A neutral / uncertain (potentially positive) effect is predicted overall, though there is uncertainty about whether the redistributed sites would help to reduce travel distances to higher quality jobs.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. This option would therefore also be positive in terms of accessibility to jobs given the proximity of the M1 as well as Shepshed and Loughborough. However, this approach would be likely to involve more HGVs and would also encourage car travel to access the site given its excellent links to the M1. On balance, a **minor positive effect** is predicted.

Overall, there are no significant effects generated for any of the options. However, options 2 and 3 have the potential for a minor long term positive effect as they both propose the delivery of higher quality employment land in broadly accessible locations.

## Minerals

Option 1

0

Option 2

-?

Option 3

0

### Appraisal commentary

All of the options propose a similar quantum of employment growth and this is located predominantly in the same areas, so there is little to differentiate between the options in terms of minerals.

Option 1 essentially represents a business as usual approach and thus a **neutral effect** is predicted.

Option 2 will result in the redistribution of 10ha of employment land to enable the release of poorer quality employment sites for other uses. This 10ha of employment land would be delivered in the south of the borough along the northern fringe of Leicester City. It is important to note that the precise location of sites to deliver this 10ha is unknown at this stage. There is the potential for this employment land to fall within sand and gravel minerals safeguarding areas in the south of borough. Development in this area could therefore potentially sterilise some of this resource. Though no specific site allocations have been identified in this area to meet minerals needs, a potential **minor negative effect** has been predicted as extraction may be appropriate on certain site options in the longer term. The replacement sites are largely located within the urban area and unlikely to have the same potential for effects on minerals.

Option 3 proposes the delivery of an additional 10ha of employment land for larger industrial units/warehousing. This would be delivered on one site that is situated adjacent to Shepshed, north east of the M1 Junction 23. A small proportion of the site falls within an igneous rock minerals safeguarded area and could therefore potentially sterilise some of this resource. However, given the location and characteristics of the site (i.e. visually intrusive to residential areas), it is considered unlikely that major works would be permitted in this area anyway. An extension to the existing quarry at Shepshed is more likely to be suitable to the south of the quarry. There are also alternative areas that may be more suited to extraction (in fact, allocated sites for minerals in the Leicestershire Waste and Minerals Local Plan (Pre-Submission, 2017) do not include sites within Shepshed. Taking these factors into account, the effects are considered to be **neutral**.

In summary, **neutral effects** are predicted for options 1 and 3 as workable mineral resources are unlikely to be affected (beyond the effects of committed and allocated developments). Though effects are not predicted to be significant for Option 2, there is potential for minor negative effects through the sterilisation of sand and gravel resources. There are uncertainties however as the precise sites that would be released are unknown at this stage.

## **APPENDIX F: SITE ASSESSMENT FRAMEWORK**

SA objectives	Supporting criteria	Criteria	Source
<p><b>1. Landscape</b> - Protect and enhance the integrity and quality of the Borough's urban and rural landscapes, maintaining local distinctiveness and sense of place.</p>	<ul style="list-style-type: none"> <li>- Protect and enhance landscape character in accordance with management objectives.</li> <li>- Maintain settlement identity and prevent coalescence.</li> <li>- Protect and enhance areas of tranquillity.</li> <li>- Promote schemes designed to promote the diversity of landscape and built character into new development.</li> <li>- Minimise detrimental visual intrusion.</li> <li>- Minimise light pollution.</li> </ul>	<p><b>Sensitivity rating from landscape character assessment</b></p> <p><u>Colour rating and text for proformas</u></p> <p><i>High sensitivity</i>  <i>Medium – High</i>  <i>Medium sensitivity</i>  <i>Medium - low</i>  <i>Low sensitivity</i></p>	<p>Landscape Character Assessment Report – October 2018</p>
<p><b>2. Biodiversity and nature conservation</b>  - Protect and enhance biodiversity, habitats and species</p>	<ul style="list-style-type: none"> <li>- Protect and enhance designated sites including SSSIs, LNRs and LWSs.</li> <li>- Protect and enhance priority habitats and species.</li> <li>- Contribute to the protection and creation of new BAP habitats.</li> <li>- Avoid habitat fragmentation and increase connectivity of habitats.</li> <li>- Enhance community engagement with biodiversity.</li> <li>- Encourage the protection and provision of green and open spaces.</li> </ul>	<p><b>Assessment to be linked to Phase 1 habitat survey being done by the council.</b></p> <p>A Rating  B Rating  C Rating  D Rating  E Rating</p>	<p>Council In-House assessments – September 2018</p>

SA objectives	Supporting criteria	Criteria	Source
<p><b>3. Water Quality</b> - Protect and improve the quality and quantity of the water in the Borough's surface and groundwaters.</p>	<ul style="list-style-type: none"> <li>- Contribute to the achievement of WFD objectives.</li> <li>- Encourage sustainable and efficient management of water resources.</li> <li>- Protect and where possible improve drinking water quality.</li> <li>- Improve water quality in the Borough's watercourses.</li> <li>- Enhancement and recreation of natural watercourses.</li> <li>- Increase the use of SuDS.</li> </ul>	<p><u>Colour rating and text for proformas</u></p> <p><b>Within 50m of watercourse</b> <b>Within Groundwater protection zone</b></p> <p><b>Active agricultural land within Nitrate vulnerable zone</b></p> <p>Not within groundwater protection zones, not within 50m of watercourse, non-agricultural land - <b>Neutral effects likely</b></p>	<p><i>Groundwater protection zones</i></p> <p><i>Watercourses</i></p>
<p><b>4. Flood Risk</b> – Reduce the risk of flooding to existing communities and ensure no new developments are at risk.</p>	<ul style="list-style-type: none"> <li>- Minimise the risk of flooding to people and properties.</li> <li>- Promote and increase the use of SuDS that result in Greenfield or better run-off rates.</li> <li>- Only development appropriate to the Flood Zone shall take place.</li> <li>- All new development takes account of the 2016 Climate Change allowances.</li> </ul>	<p><u>Colour rating and text for proformas</u></p> <p><b>Site more than 70% within flood zone 1 = Neutral</b></p> <p><b>Site entirely within flood zone 2/3 = Significant constraint</b></p> <p>Developable part of site within flood zone 2/3 (up to 30%) = <b>Potential / minor constraint</b></p>	<p><i>EA datasets and SFRA</i></p>

SA objectives	Supporting criteria	Criteria	Source
<p><b>5. Land</b> - Protect the Borough's soil resources.</p>	<ul style="list-style-type: none"> <li>- Reduce soil erosion and protect and enhance soil quality and quantity.</li> <li>- Minimise the loss of Grade 2 and Grade 3a ALC land.</li> <li>- Reduce contamination of soils from development, industry or agriculture.</li> <li>- Promote the use of brownfield land for development where possible.</li> <li>- Increase the remediation and regeneration of contaminated land.</li> </ul>	<p><b>Loss of 25ha of best and most versatile land (1,2 and 3)</b></p> <p><b>Loss of over 20ha of Grade 1 and 2 land</b></p> <p><b>Reuse of brownfield land</b></p> <p><b>Loss of greenfield land with limited agricultural value</b> (gardens, Grade 4 land, open space, playing fields)</p>	<p>National Datasets September</p> <p>Site visits / desktop mappings to verify presence of agricultural land</p>
<p><b>6. Air quality</b> - Improve local air quality</p>	<ul style="list-style-type: none"> <li>- Maintain and improve local air quality.</li> <li>- Promote measures that will remove the occurrence of AQMAs.</li> <li>- Reduce the impacts on air quality from transport.</li> <li>- Mitigate against the uses that generate NO2 or other particulates.</li> </ul>	<p><b>Residential development within AQMA – Potential / minor constraint</b></p> <p><b>HGV generating development within AQMA – Potentially significant constraint</b></p> <p>All others = <b>Neutral effect</b></p> <p><u>Access to public transport</u></p> <p><b>Significant positive</b> excellent or very good within 200m</p> <p><b>Minor positive</b> good access within 200m Excellent or very good 200m to 400m</p> <p><b>Neutral</b> – Excellent and very good within</p>	<p>AQMA layers</p> <p>Bus stops Rail stops</p> <p>Frequency to be determined using timetables and definition of frequency used to inform settlement hierarchy.</p>

SA objectives	Supporting criteria	Criteria	Source
		<p>400m to 800m. Good within 200-400m</p> <p><b>Potential / minor constraint</b> = Limited service within 200m. Excellent and very good service more than 800m. Good service more than 400m</p> <p><b>Significant constraint</b> = Limited service more than 200m. No bus rail services within 1200m</p>	
<p><b>7. Climate change -</b> Reduce the impacts of climate change and reduce greenhouse gas emissions.</p>	<ul style="list-style-type: none"> <li>- Deliver schemes that promote habitat and species resilience and adaptability to the effects of climate change.</li> <li>- Promote measures that minimise greenhouse gas emissions.</li> <li>- Minimise the likely impacts of climate change through promotion of appropriate adaptation measures in new development.</li> <li>- Promote the development of renewable energy generation.</li> <li>- Promote water efficiency measures in new development.</li> <li>- Reduce waste and increase reuse, recycling and energy produced of waste.</li> <li>- Promote measures that reduce the need to travel and travel distances.</li> <li>- Promote measures to reduce the need to travel by car.</li> <li>- Promote use of public transport.</li> </ul>	<p>Residential development on site or adjacent (within 50m) identified as having wind potential = <b>Significant constraint</b></p> <p>Development within 50m - 250m of areas identified with wind energy potential – <b>Potential / minor constraint</b></p> <p>Development within areas with potential for low carbon heating networks = <b>Potential positive effect</b></p> <p>Industrial development in areas with wind potential = <b>Potential positive effect</b></p>	<p>Energy Study October 2018</p>

SA objectives	Supporting criteria	Criteria	Source
<b>8. Historic environment</b> - Conserve and enhance the historic environment, heritage assets and their settings.	<ul style="list-style-type: none"> <li>- Conserve and enhance designated heritage features.</li> <li>- Maintain and enhance the character and distinctiveness of Conservation Areas and settlements.</li> <li>- Promote high-quality design.</li> <li>- Promote heritage based sustainable tourism.</li> <li>- Provide for increased access to and enjoyment of the historic environment.</li> <li>- Provide for increased access and enjoyment of the historic environment.</li> <li>- Promote heritage-led regeneration.</li> <li>- Increase the social benefit derived from the historic environment.</li> </ul>	<i>Qualitative assessment</i>  <b>Potential for significant negative effects</b> <b>Potential for negative effects</b> <i>Neutral effects</i> <b>Potential for enhancement</b>	<i>GIS data supplemented with Site visits</i>
<b>9. Population</b> – Reduce poverty and deprivation	<ul style="list-style-type: none"> <li>- Increase community engagement and decision-making.</li> <li>- Increase racial and gender equality and community cohesion.</li> <li>- Reduce poverty and social exclusion.</li> <li>- Reduce crime and the fear of crime.</li> </ul>	<b>Employment accessible to deprived areas</b> <i>– (Within 1200m walking distance or along a public transport route)</i>  <b>Site involving derelict buildings and/or vacant land</b>  <i>Neutral effects assumed otherwise</i>	<i>Qualitative assessment</i>
<b>10. Population</b> - Promote healthy and active lifestyles in the Borough	<ul style="list-style-type: none"> <li>- Increase access to high quality healthcare facilities.</li> <li>- Promote active and healthy lifestyles.</li> <li>- Promote recreational and leisure opportunities and access to open space.</li> <li>- Increase regular participation in</li> </ul>	<i>Open space</i> <b>Within 400m of open space</b> <i>Within 400-800m of open space</i> <b>Over 800m to open space</b> <b>Loss of formal open space</b>	<i>Location of open space</i>  <i>Location of healthcare facilities</i>

SA objectives	Supporting criteria	Criteria	Source
	physical activities and sport.	<p><i>Health care</i></p> <p><b>&lt;400m walking / cycling to a GP/health centre</b></p> <p><b>&lt;800m walking / cycling to a GP/Health centre</b></p> <p>&lt;1200m walking / cycling to a GP/Health centre</p> <p><b>&lt;800m to public transport stop, and then less than 2km of a GP or health centre</b></p> <p><b>More than 1200m from a GP/health centre and more than 800m from a public transport stop.</b></p> <p><b>More than 1200m from a GP/health centre and more than 1200m from a public transport stop.</b></p> <p><i>Proximity to older people care homes/supported living/specialist homes</i></p> <p><b>&lt;400m walking distance</b></p> <p><b>&lt;800m walking distance</b></p> <p>&lt;less than 1200m walking distance</p> <p><b>Over 1200m walking distance</b></p>	<i>Location of specialist care</i>

SA objectives	Supporting criteria	Criteria	Source
<p><b>11. Population -</b> Improve access to affordable housing and ensure an appropriate mix of dwelling sizes, types and tenures within local communities.</p>	<ul style="list-style-type: none"> <li>- Provide an adequate supply of housing.</li> <li>- Reduce homelessness.</li> <li>- Make best use of existing housing stock.</li> <li>- Provide quality and flexible homes that meet the needs of the community</li> </ul>	<p><i>Amount of housing and deliverability</i></p> <p><b>Housing development up to 200 dwellings deliverable within the plan period</b></p> <p><b>More than 100 dwellings deliverable within 5 years</b></p> <p><b>More than 200 dwellings deliverable in the plan period</b></p>	<p>SHLAA</p>
<p><b>12. Local economy -</b> Promote a sustainable and diversified economy, and improve skills and employability</p>	<ul style="list-style-type: none"> <li>- Promote retention of existing jobs and create new employment opportunities.</li> <li>- Increase diversity in the range of job opportunities.</li> <li>- Ensure an adequate supply of a range of sites in terms of types and quality for employment uses.</li> <li>- Improve access to opportunities for education, learning and skills training for all sectors of the community.</li> <li>- Support the creation of flexible jobs to meet the changing needs of the population.</li> </ul>	<p><u>Employment land</u> Does it result in the Loss of employment sites?- <b>significant negative effect if results in loss of employment sites</b></p> <p>Does it result in the Creation of employment sites- <b>likely positive effect</b></p> <p>Housing site on non-employment land - <i>Neutral</i></p> <p><u>Proximity to key routes</u> Is it close Proximity to key routes (employment sites only) under 2km – <b>likely positive effect</b></p> <p>Above 2km = <i>Neutral</i></p>	<p>SHLAA / ELR</p>

SA objectives	Supporting criteria	Criteria	Source
<p><b>13. Material assets -</b> Increase access to a wide range of services and facilities.</p>	<ul style="list-style-type: none"> <li>- Improve availability and accessibility of key local facilities, including healthcare, education, retail and leisure.</li> <li>- Promote the development of a range of high quality, accessible community, cultural and leisure facilities.</li> <li>- Maintain and enhance rural facilities.</li> <li>- Increase voluntary and community infrastructure.</li> </ul>	<p><i>School must have spare capacity or developer contributions must be able to add capacity on site.</i> <i>If landlocked, score according to next nearest school.</i></p> <p><i>Pre-school provision</i>  <i>Within 400m</i>  <i>Within 800m</i>  <i>Within 1200m</i>  <i>1200m-1600m</i>  <i>More than 1600m</i></p> <p><i>Primary schools</i>  <i>Scale of development supports new school</i>  <i>Less than 400m distance to a primary school.</i>  <i>400-800m to a primary school</i>  <i>800-1200m to a primary school</i>  <i>1200 - 1600m to a primary school</i>  <i>More than 1600m to a primary school</i></p> <p><i>Secondary schools</i>  <i>Less than 800m distance to a secondary school</i>  <i>800m-1200m to a Secondary school</i>  <i>1200m-3200m to a secondary school</i>  <i>More than 3200m to a secondary school</i></p>	<p>Primary school point data</p> <p>Secondary school point data</p> <p>Convenience stores</p> <p>Allotments</p> <p>Play areas</p> <p>Sports facilities</p> <p>Community centres</p> <p>Libraries</p>

SA objectives	Supporting criteria	Criteria	Source
		<p><i>Local retail</i></p> <p>Within 400m distance to food shop / supermarket</p> <p>Within 800m distance to food shop / supermarket</p> <p>Within 1200m of a food shop / supermarket</p> <p>Over 1200m distance to a food shop / supermarket</p> <p><i>Access to Leisure facilities (allotments, childrens play areas, libraries, community centres, sports facilities, public house)</i></p> <p>Within 800m of 4 or more facilities</p> <p>Within 1200m of 4 or more facilities</p> <p>Within 800m or 2 or 3 facilities</p> <p>Within 1200m of 2 or 3 facilities</p> <p>Within 800m of 1 facility</p> <p>within 1200m of 1 facility</p> <p>No facilities within 1200m</p>	
<p><b>14. Mineral resources</b> - Ensure sustainable management of the Borough's mineral resources.</p>	<ul style="list-style-type: none"> <li>- Increase the retention of mineral workings for biodiversity, landscape and the general public.</li> <li>- Reduce the use of minerals and increase the reuse of material on and off site.</li> <li>- Safeguard the existing development from the environmental effects of mineral workings.</li> </ul>	<p><i>Overlap with Mineral Safeguard Areas (MSAs)</i></p> <p>Site not within MSAs = Neutral</p> <p>Up to 10 ha within MSAs = Potential constraint</p> <p>More than 10ha within MSAs = Potential significant constraint</p>	<p><i>Mineral Safeguarded Area GIS data</i></p>

**APPENDIX E: COUNCIL SCENARIO ASSESSMENT CRITERIA**

<b>Sustainability Appraisal Framework</b>	<b>Scenario A Avoid Significant Adverse Impacts</b>	<b>Scenario B Mitigate Significant Adverse Impacts</b>	<b>Scenario C Impact on Accessibility &amp; Mitigate Other Significant Adverse Impacts</b>
Landscape	Exclude sites that have a moderate high sensitivity (most sensitive grading).  Exclude sites in Green Wedges or Areas of Local Separation.	Large sites (2ha +) have been assessed individually as to whether there is broad scope to mitigate adverse landscape effects through masterplanning.  Sites within Green Wedges / Areas of Local Separation have been assessed for their potential to mitigate adverse impacts through a reduction in the site's capacity.	Large sites (2ha +) have been assessed individually as to whether there is broad scope to mitigate adverse landscape effects through masterplanning.  Sites within Green Wedges / Areas of Local Separation have been assessed for their potential to mitigate adverse impacts through a reduction in the site's capacity.
Biodiversity	Exclude sites from most sensitive two categories (where there is limited prospect for mitigation).	Exclude sites from most sensitive two categories (where there is limited prospect for mitigation).	Exclude sites from most sensitive two categories (where there is limited prospect for mitigation).
Water Quality	Criterion not used to exclude sites.	Criterion not used to exclude sites.	Criterion not used to exclude sites.
Flood Risk	Exclude sites where more than 70% of site is within flood zone.	Large sites (2ha +) have been assessed individually as to whether there is broad scope to mitigate adverse flood risk effects through masterplanning.	Large sites (2ha +) have been assessed individually as to whether there is broad scope to mitigate adverse flood risk effects through masterplanning.
Soil	Exclude sites which would result in the loss of more than 20ha or more of grade I or II agricultural land.	Criterion not used to exclude sites.	Criterion not used to exclude sites.
Air Quality	Exclude sites which would generate HGV movements which are within an AQMA.	Exclude sites which would generate HGV movements which are within an AQMA.	Exclude sites which would generate HGV movements which are within an AQMA.
Climate Change	Criterion related to resource efficient and resilient developments was not used to exclude sites.  Include only those sites which have access to a good public transport service within 200m of the site.	Criterion related to resource efficient and resilient developments was not used to exclude sites.  Include only those sites which have access to a good public transport service within 200m of the site or large sites of 500+	Criterion related to resource efficient and resilient developments was not used to exclude sites.  Include sites that have at least a good service within 800 metres or large sites of 500+ because of the opportunity to establish new

<b>Sustainability Appraisal Framework</b>	<b>Scenario A Avoid Significant Adverse Impacts</b>	<b>Scenario B Mitigate Significant Adverse Impacts</b>	<b>Scenario C Impact on Accessibility &amp; Mitigate Other Significant Adverse Impacts</b>
		because of the opportunity to establish new public transport services.	public transport services
Heritage	Exclude those sites where there is potential for significant negative effects on heritage.	Assessed all sites to consider opportunity for mitigation where there is potential for significant negative effects on heritage.	Assessed all sites to consider opportunity for mitigation where there is potential for significant negative effects on heritage.
Deprivation	Criterion not used to exclude sites.	Criterion not used to exclude sites.	Criterion not used to exclude sites.
Healthy Lifestyles	Exclude sites resulting in loss of formal open space.  Exclude sites more than 1,200m from a health centre or GP and more than 1200m from a public transport stop.	Exclude sites resulting in loss of formal open space.  Exclude sites more than 1,200m from a health centre or GP and more than 1200m from a public transport stop.	Exclude sites resulting in loss of formal open space.  Criterion not used to exclude sites.
Housing	Criterion not used to exclude sites.	Criterion not used to exclude sites.	Criterion not used to exclude sites.
Local Economy	Exclude sites which would result in the loss of employment site.	Exclude sites recommended for safeguarding by PBA Consultants through the Employment Land Study.	Exclude sites recommended for safeguarding by PBA Consultants through the Employment Land Study.
Accessibility	Access to pre-school not used to exclude sites.  Exclude sites which are more than 1200m from a primary school or scale of development has the potential to support a new school.  Exclude sites which are more than 3200m from a secondary school  Exclude sites which are more than 1200m from foodshop / supermarket.	Access to pre-school not used to exclude sites.  Exclude sites which are more than 1200m from a primary school or scale of development has the potential to support a new school.  Exclude sites which are more than 3200m from a secondary school  Exclude sites which are more than 1200m from foodshop / supermarket.	Access to pre-school not used to exclude sites.  Exclude sites which are more than 1600m away from a primary school or scale of development has the potential to support a new school.  Criterion not used to exclude sites.  Criterion not used to exclude sites.

<b>Sustainability Appraisal Framework</b>	<b>Scenario A Avoid Significant Adverse Impacts</b>	<b>Scenario B Mitigate Significant Adverse Impacts</b>	<b>Scenario C Impact on Accessibility &amp; Mitigate Other Significant Adverse Impacts</b>
	Exclude sites where there is only 1 leisure facility within 1200m and those sites where there is no leisure provision.	Exclude sites where there is only 1 leisure facility within 1200m and those sites where there is no leisure provision.	Criterion not used to exclude sites.
Minerals	Criterion not used to exclude sites.	Criterion not used to exclude sites.	Criterion not used to exclude sites.



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