

Gainsborough Strategy Area Growth Study

Options Report

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Report by:

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Gainsborough Strategy Area Growth Study: Options Report

1. Introduction..... 1

2. Methodology 3

3. Defining the Strategy Area 6

4. Key Spatial Issues and Principles17

5. Risk Assessment Considerations.....18

APPENDIX 1: Sustainability Appraisal Outcomes21

APPENDIX B: Evidence Review (available as a separate document)

1. Introduction

- 1.1 Working with the Central Lincolnshire Local Plan Team¹, OpenPlan, Rose Regeneration and Lincoln Business School (University of Lincoln) have been commissioned to consider options for urban growth in and around Gainsborough. The main aim of this study is to recommend an optimum spatial strategy for growth in Gainsborough over the next 20 years – the strategy most likely to meet twin objectives of *sustainability* and *deliverability*. A similar study is being undertaken for the Lincoln Strategy Area.
- 1.2 The study and its recommendations have informed the emerging **Central Lincolnshire Local Plan**, so it has been particularly important to:
- use a sound and objectively based methodology; and,
 - base findings on a clear, evidence-based understanding of the social, economic and physical connections between the town of Gainsborough and the area that focuses on Gainsborough as its main urban centre.
- 1.3 Alternative growth options have been identified and evaluated through a process that has involved:
- 1) **Evidence Base Review**, including, but not restricted to:
- Strategic Housing and Economic Land Availability Assessment (SHELAA);
 - Strategic Housing Market Assessment (SHMA);
 - Strategic Housing Land Availability Assessment SHLAA);
 - Economic Development Needs Assessment (EDNA);
 - Sustainable Urban Extension Topic Papers (3) for Gainsborough.

- 2) **Policy Review** - current and emerging policy at local and national levels;
- 3) **Spatial Definition of the Gainsborough Strategy Area;**
- 4) **Definition of Potential Spatial Growth Options;**
- 5) **Identification of Key Principles;**
- 6) **Formulation of Assessment Criteria**, based on the Sustainability Objectives identified for appraisal of the Central Lincolnshire Local Plan as a whole and adapted to the Gainsborough-area context;
- 7) **Sustainability Appraisal of the Options**, using the Assessment Criteria to appraise each option so as to identify the one(s) that can be expected to produce the most sustainable development outcome overall.
- 8) **Deliverability assessment** - It is important that the selected growth option is both sustainable and deliverable. Deliverability is to be explored further through on-going stakeholder consultation associated with the Local plan and infrastructure delivery but, at this stage, options have been treated as deliverable if:
- i. a large proportion of the land required for development has been identified in the SHLAA the SHELAA and/or the emerging proposals for Sustainable Urban Extensions (indicating that there is landowner /developer interest in bringing that land forward for development);
 - ii. there are no obvious reasons to expect that development could not be brought forward during the Local Plan period, or that the necessary 5 years minimum supply of land for housing development could not be maintained;
 - iii. there is a reasonable expectation that required infrastructure could be delivered in time, either as part of the development or in

¹ The Central Lincolnshire Local Plan is being prepared jointly by and for The City of Lincoln, West Lindsey and North Kesteven District Councils and Lincolnshire County Council and this study has been commissioned jointly by those authorities.

association with it (it is assumed that this will involve a mixture of public and developer funding²).

- 1.4 This report is based on careful consideration of the information available at the time of its preparation. An earlier version of the report was issued in July 2015. That earlier version has been reviewed in the light of responses received by the Central Lincolnshire Local Plan Team to consultation on the Further Draft Central Lincolnshire Local Plan (carried out between Thursday 15th October 2015 and Wednesday 25th November 2015), and the latest discussions with the promoters of the Sustainable Urban Extensions being planned for Gainsborough.
- 1.5 Section 2 provides an overview of the methodology and Sections 3 to 5 explain in the basis for the recommendations presented in section 6.

² The growth study has been coordinated with the work of the Central Lincolnshire Infrastructure and Viability Task Group, coordinated by Lincolnshire County Council.

2. Methodology

- 2.1 This study's primary purpose has been to provide a detailed analysis of potential options for urban growth – especially housing - in and around Gainsborough, so that an informed decision may be made as to where that growth would be most appropriate. It recommends a spatial strategy to guide decisions about where development should be promoted and allowed, taking an integrated view based on a range of social, economic and environmental considerations.
- 2.2 To gain a thorough understanding of relevant information and influences and to make sure that decisions made about growth in the Gainsborough area are underpinned by as robust and comprehensive an evidence base as possible, the study has:
- examined and interpreted existing data to gain a quantitative understanding of expected needs and demand for buildings and land for development;
 - considered relevant existing strategies, policies, guidance and commitments at local and national levels,
 - taken account of known proposals, constraints and opportunities by considering a number of relevant reports, studies and other information sources;
 - defined a "Gainsborough Strategy Area", spatially, by considering selected data relating to what might be termed Gainsborough's "sphere of influence" (primarily by looking at the operation of the housing market, travel-to-work patterns and "self-containment")³.

³ There are many other factors that could be considered when defining an urban centre's "sphere of influence – for example, shopping patterns and use of education, cultural and leisure facilities – but for the purposes of this particular study spatial patterns relating to housing and employment are considered to be the most relevant.

Those tasks have involved collating and analysing many evidence sources around a number of themes (such as housing, economy, health, travel and transport, green infrastructure etc.)⁴.

Evidence Review

- 2.3 In relation to phase 1, a comprehensive list of documentary evidence was identified in collaboration with the client. This included both extant and in draft material, which was relevant to an assessment of the definition and growth needs of a Gainsborough Strategy Area within Central Lincolnshire.
- 2.4 29 documents were identified and reviewed using a common template. The documents were grouped into the following categories: Housing, Economy, Health, Natural and Built Environment, Transport and Infrastructure, Settlements, Viability and Delivery, Local Plan Documents
- 2.5 This template was then moderated through a group discussion amongst the delivery team, and final judgements were made to inform the key learning from it. The template itself covered the following themes:
- **Content and Context:** what is the purpose and content of the evidence, and who has produced it?
 - **Robustness:** how reliable are the data/processes underpinning the evidence – has it for example used credible data sources, tested and accepted models, or been subject to consultation?
 - **Application to Options:** does the evidence provide any particular emphasis on, or implications for, the four growth options?
 - **Strategic Significance:** how does the evidence contribute to our understanding of future population and employment growth in the Gainsborough Strategy Area? How does it relate to or inform the Local Plan?

⁴ Using a common review template, the relevant information from each source was collated into a documented Evidence Base, which is appended to this report as Appendix B.

- **Relevance to National Planning Policy Framework (NPPF) Themes:** which of the 12 NPPF themes does the evidence address?
- **Criteria Implications:** what (if any) of the issues emerging from the evidence need to form part of the assessment criteria?

2.6 Our evidence review revealed a comprehensive coverage of most issues. The only area requiring additional analysis at this stage related to the most up-to-date commuting data from the 2011 census. Crucially, this information has allowed us to break down levels of economic activity below district boundaries and has enabled us to make an evidence-based judgement on the portion of Central Lincolnshire which should be included within the Gainsborough Strategy Area for the assessment of its housing and employment share of the overall needs of the Central Lincolnshire area.

Objectives

2.7 The review of extant data and the provision of the new commuting information have enabled us to confirm the key objectives of the study, namely:

- 1) to effectively describe the boundaries of the Gainsborough Strategy Area;
- 2) to break out from the Central Lincolnshire data the amount of employment and housing land it is likely to need to the end of the plan period;
- 3) to consider this in terms of four options governed by a consideration of sustainability and deliverability;
- 4) to make an evidence-based assessment of which of these options is likely to be most appropriate; and,
- 5) to describe that option in practical detail.

2.8 The Four options that have been identified and considered in this study are:

- A. *Accommodate Gainsborough-related growth within the town of Gainsborough itself, plus one or more Sustainable Urban Extensions (of Gainsborough).*
- B. *Accommodate Gainsborough-related growth within the Gainsborough Built-up Area [this includes Lea and Morton] plus one or more Sustainable Urban Extensions.*
- C. *Accommodate Gainsborough-related growth in the Gainsborough Built-up Area plus one or more Sustainable Urban Extensions and a cluster of adjacent smaller settlements within an identified area of self-containment [eg, Marton, Knaith and Corringham].*
- D. *Disperse growth more widely (recognising the implications of the potential for growth of key sectors in the sub-region particularly renewables and agri-food), selecting those settlements with the best potential to accommodate growth [eg, Hemswell Cliff and Scotter], whilst also taking account of the need to support the on-going sustainable development of Gainsborough.*

Assessment Process

2.9 The assessment of the most appropriate of the four options identified above, in the context of the objectives for this study, has involved a logical process linked to the following steps:

- 1) Identification of the extent of currently allocated but unused housing and employment sites within the Lincoln Strategy Area;
- 2) Establishment of the net additional amount of land required having taken 1, above, into account;
- 3) Assessment of the capacity of the currently identified sustainable urban extensions to meet this demand – including consideration of the potential, where appropriate, to accelerate the bringing forward of land on these sites within the plan period;

- 4) Identification of possible additional sites identified through the Strategic Housing and Employment Land Availability Study (consideration of these sites does not constitute endorsement);
- 5) Considering at a general (non-detailed) level the issues for these sites in terms of the sustainability and deliverability⁵ criteria, set out in the assessment criteria below, and aggregating that to identify a potential capacity figure for each relevant settlement and neighbourhood in the Lincoln Strategy Area;
- 6) Mapping the land identified through steps 1-4, above, onto the four options.

Sustainability Criteria

2.10 To enable each alternative growth option to be evaluated consistently and objectively, the extent to which it could be expected to satisfy each of the criteria listed below has been assessed. The selection of criteria has been informed by the Sustainability Objectives/Integrated Impact Assessment Objectives being applied in assessing the whole Central Lincolnshire Local Plan as well as by the matters outlined in the preceding sections of this report.

- I. Strengthens the functional and physical qualities necessary for the Town Centre to be a thriving destination for shopping, culture, leisure, learning and business;
- II. Supports strong commercial investment opportunities for developers and other partners delivering development on key Town Centre renewal sites;

⁵ Key issues considered in relation to deliverability include (in the specific context of proposed usage – i.e. residential or employment use class): cost of infrastructure to access the site, cost of infrastructure to service the site (including site remediation costs), section 106 and potential CIL costs, any other obvious likely planning conditions and their cost, the likely market response to the development in terms of the potential return on development, site development timescales, potential community response to the development, any other unique site specific issues of relevance.

- III. Facilitates delivery of priority infrastructure schemes;
- IV. Supports and promotes the manufacturing base of the economy;
- V. Meets identified needs for a range of good quality housing and employment sites to ensure the housing stock meets the needs of the area and creates and improves access to high quality employment and training opportunities;
- VI. Provides supply of new housing and employment land on economically viable and deliverable sites;
- VII. Preserves and enhances built and historic environment, including the Town's setting and waterfront assets;
- VIII. Preserves and enhances biodiversity through inclusion of green linkages and supports green infrastructure;
- IX. Promotes walking and cycling to reduce traffic and improve air quality and promote healthy lifestyles and maximise health and well being;
- X. Is consistent with reducing and managing the risk of flooding;
- XI. Achieves sustainable accessibility and connectivity through integrated transport solutions;
- XII. Is consistent with the need to minimise carbon emissions and minimise pollution;
- XIII. Supports healthy communities and individuals;
- XIV. Maximises opportunities for positive cultural, social and economic interaction to stimulate regeneration and ensure equitable outcomes for all;
- XV. Achieves broad community support.

2.11 Assessment of the four alternative options has been undertaken and is detailed in Section 3.

3. DEFINING THE STRATEGY AREA

Spatial Definition

- 3.1 In the parallel study for this work in Lincoln a spatial definition of the Lincoln Strategy Area (sub-region) has been agreed by considering its economic self-containment. Commuting flows from the 2011 census have been used at Medium Super Output Area (MSOA) level, to determine self-containment, based on the two criteria which underpin the development of travel to work patterns: namely, that for labour markets over 25,000 population, two thirds (67%) of the area's resident workforce work in the area, and at least 67% of the people who work in the area also live in the area.
- 3.2 In Gainsborough the spatial positioning of the town in a relatively isolated position, forming the western boundary of the district of West Lindsey and with no development on the flood plain to its Nottinghamshire boundary, neither of the MSOAs which principally comprise the town achieve the level of self containment set out in 4.1 above. Both are at 61%. Interestingly both MSOAs have relatively low levels of home working, compared to the Central Lincolnshire area overall. This, in part, reduces their level of self-containment. The overall labour market for Gainsborough is below the 25,000 population referenced above and therefore significant levels of containment should not necessarily be inferred anyway.
- 3.3 Looking more widely at Gainsborough's relationship to adjoining local authorities (and based on the two principal MSOAs it comprises) the following commuting pattern emerges - see Table 1 and 2.

Table 1: Commuting from Gainsborough overview: Top 10 destinations

Destination	Commuting from Gainsborough	% (Gainsborough Employed Residents)
Gainsborough (excluding home workers)	3169	44.6
Rest of West Lindsey	837	11.8
Lincoln	521	7.3
Working mainly from home	514	7.2
Bassetlaw	473	6.7
No fixed place of work	439	6.2
North Lincolnshire	328	4.6
North Kesteven	134	1.9
Doncaster	93	1.3
Newark and Sherwood	79	1.1
Other destinations	513	7.2
All destinations	7100	100

Table 2: Commuting to Gainsborough overview: Top 10 origin areas			
Origin	Commuting to Gainsborough	% (Origin Employed Residents)	% total commuting to Gainsborough
Gainsborough (excluding home workers)	3169	44.6	40.6
Rest of West Lindsey	2017	5.7	25.9
Bassetlaw	613	1.2	7.9
Working mainly from home	514	7.2	6.6
North Lincolnshire	429	0.5	5.5
Lincoln	239	0.5	3.1
Doncaster	138	0.1	1.8
North Kesteven	124	0.2	1.6
Sheffield	110	0.0	1.4
North East Lincolnshire	44	0.1	0.6
Other origins	402		5.2
All origins	7799		100

- 3.4 The spatial/ geographical extent of the self-contained (greater than 50%) area of Gainsborough is illustrated in the map below.
- 3.5 For comparison that map and a similar map relating to Lincoln are reproduced side-by-side below. This illustrates very clearly the strong differences between Lincoln and Gainsborough in terms of their respective “gravitational pull” as employment centres.

- 3.6 The precise boundary of the Gainsborough Strategy Area, based on this methodology, excludes the villages of Lea and Morton. This is because the MSOA boundaries include these settlements in adjoining MSOAs which are very large geographically and include a significant number of other settlements which if included would skew the population figures for Gainsborough significantly. To test the scale of self-containment using these two MSOAs we have, therefore, considered the population for the Gainsborough area including Morton and Lea at LSOA as well as MSOA level.
- 3.7 It is instructive to look at the Gainsborough area in the context of the whole Central Lincolnshire Local Plan area. The population of the Local Plan area as a whole is 292,568. Taking those two MSOAs with the greatest level of self-containment in the Gainsborough area - the two which comprise the town itself - the population for this part of Central Lincolnshire area is 16,676, equating to 6% of the Local Plan area’s total. Even including Lea and Morton (mapping at LSOA level) the population only rises to 21,973 or 7.5% of the Local Plan area’s total. As commuting data has only been released at MSOA level we have used the MSOA population for the two Gainsborough town MSOAs highlighted on the map as the basis of our analysis.
- 3.8 One interesting feature of the Gainsborough area’s relatively weak level of self-containment is the limited competition it provides to, or faces from, adjoining settlements in terms of housing and employment land. Clearly, if the growth aspired to for Gainsborough is to be achieved (12% of the housing for the Central Lincolnshire Local Plan area, against a current population that represent only 6% of the population of Central Lincolnshire) this points strongly towards the need to concentrate growth tightly around the town itself and this needs to be given due consideration when assessing the four options considered for this study.

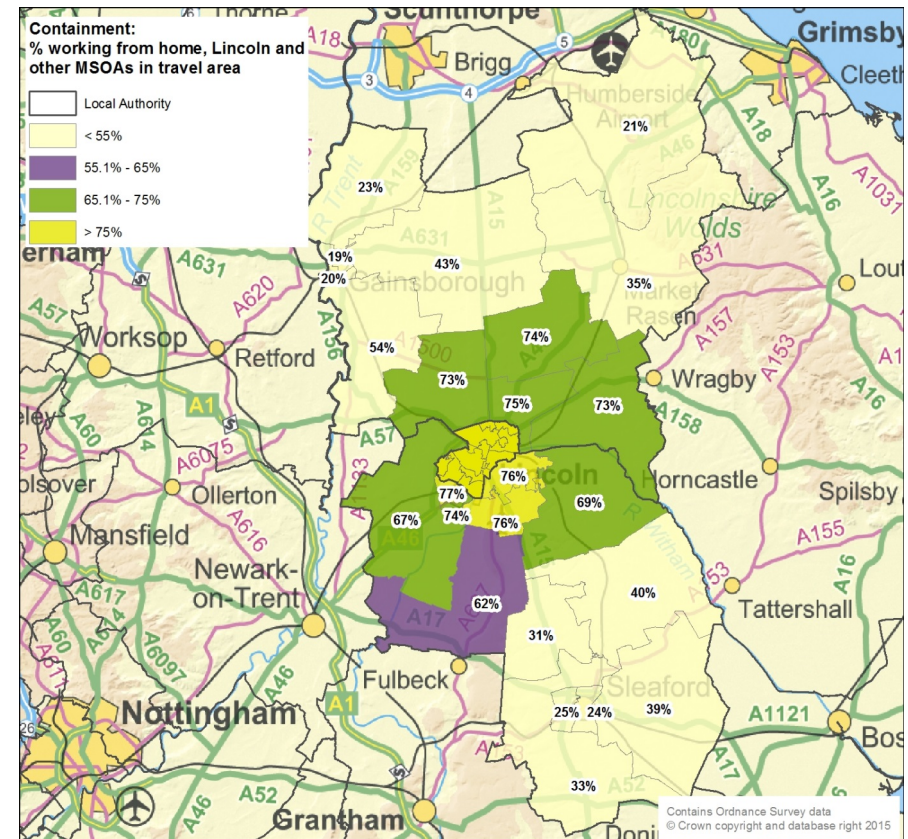
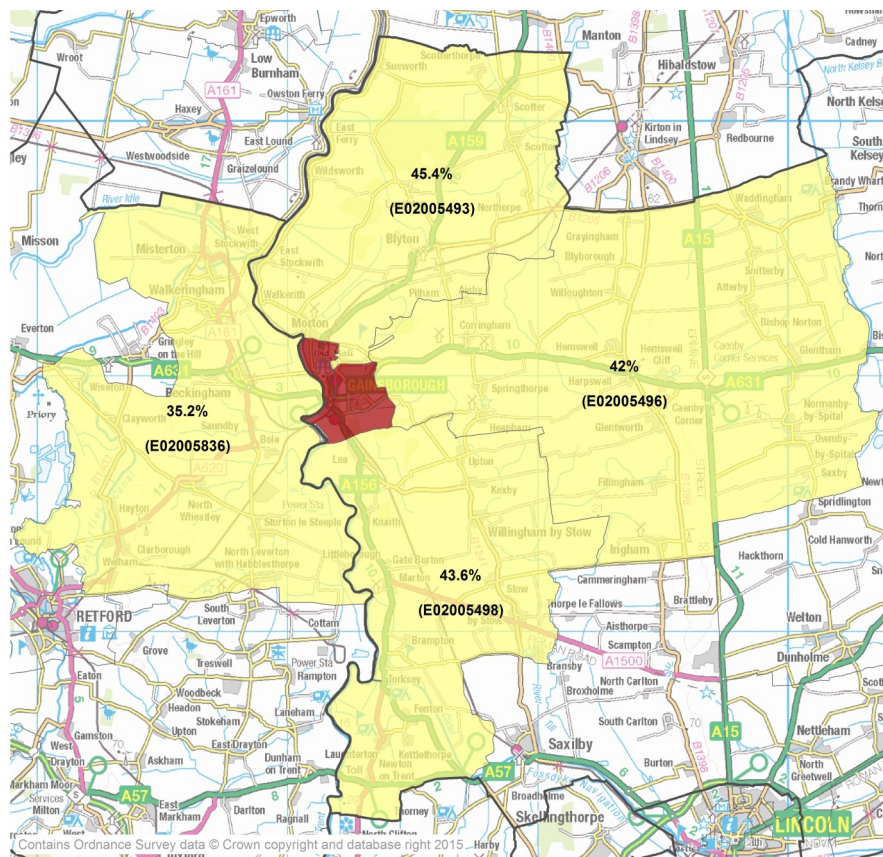


Figure 1: Self containment of Gainsborough (left) and Lincoln (right)

Table 3: Business as Usual ("Policy Off")				
	Current % of Central Lincs	Current Stock	Increase in line with current stock	% Increase from current stock
Gainsborough	8	9,491	2,825	+30
Lincoln SA	64	78,858	23,654	+30
Sleaford	6	7,653	2,278	+30
Rural	23	28,180	8,203	+30
Totals	100	124,182	36,960	+30

Table 4: Intervention ("Policy On")				
	Growth Allocation %	Current Stock	Growth Allocation	% increase from current stock
Gainsborough	12	9,491	4,435	+47
Lincoln SA	64	78,858	23,654	+30
Sleaford	12	7,653	4,435	+58
Rural	12	28,180	4,436	+16
Totals	100	124,182	36,960	+30

3.9 In that light, it would be appropriate to consider aspirations for growth of other settlements in West Lindsey against the housing target allocated to the rural parts of Central Lincolnshire, rather than the 12% Gainsborough allocation. For example, aspirations for growth at Hemswell Cliff (which is part of an adjacent MSOA with 40% self-containment in terms of Gainsborough) should be considered in that context, because at this level of interaction with Gainsborough it is much more part of a wider network of rural settlements across West Lindsey than a key component of the dedicated hinterland of Gainsborough.

3.10 Tables 3 and 4, opposite, show how growth could be expected to be apportioned between four "sub-regions" in the Central Lincolnshire Local Plan area – the Lincoln, Gainsborough and Sleaford Strategy Areas, and the Rural Area – under two alternative scenarios – "Business as Usual (Policy-off)", and "Intervention (Policy-on)".

3.11 Under the "Business as Usual" scenario - Table 3 – the total number of additional housing units to be provided for across the Central Lincolnshire Local Plan area by 2036 (36,960) has simply been divided between the four areas in proportion to their current share of the housing stock. 36,960 represents an increase of 30% over the current Central Lincolnshire housing stock of 24,182 units, so each area's stock has been increased by 30% in this table.

3.12 Under the "Intervention" scenario – Table 4 - the same total number of additional housing units has been distributed in line with a policy approach that seeks to direct a larger proportion of the new housing to Sleaford (12% instead of 6% under the "Business as Usual" scenario) and Gainsborough (12% instead of 8%); less to the rural areas (12% instead of 23%); and keeps the same 30% growth for Lincoln. In effect, this "Intervention" scenario would see Sleaford experiencing the greatest proportional growth, with 58% more housing units than now built by 2036. Gainsborough's housing stock would increase by 47% over the same period, whilst Lincoln's would grow less - by 30% - and the growth of housing units in the rural areas

would be less still, at 16%. This all represents a significant change from trends seen in recent years.

- 3.13 The MSOAs within Gainsborough have been used to identify its population and sectoral share of overall employment, so as to interpret the housing and employment land needs identified for the Central Lincolnshire area as a whole at the level of the town. In terms of the assessment of housing land need, this has involved a simple apportionment of the housing proposed for Central Lincolnshire. In terms of an assessment of employment land need, this has involved using Business Register and Employment Survey (BRES) data to work out what proportion of each employment sector used to assess the employment land needs in Central Lincolnshire applies to this area.
- 3.14 Whilst this methodology forms the core of our work and complies with good plan-making practice, extant documents and consultation discussions were used to contextualise the sustainability and deliverability of individual sites taking account of information on local markets for (as examples):
- a) Shops and Services
 - b) Social Interaction, Culture and Leisure
 - c) Education
 - d) Health Care
 - e) Sport.

Identifying Need

- 3.15 To quantify expected requirements for land and buildings over the Local Plan period⁶, the study has focused on “objectively assessed need” (OAN) relating primarily to housing, employment and economic development. Those are not the only uses or activities that will require additional land and buildings in and around Gainsborough during the Local Plan period, but they – and the infrastructure required to support them - are the ones that can be expected to influence the extent and location of urban growth most.
- 3.16 For the purposes of this study, the number of housing units needing to be provided for within the Gainsborough area had been calculated on a provisional assumption that this area should accommodate 12% of the total that needs to be provided for across the whole of the Central Lincolnshire Local Plan area. The Local Plan identifies a need for 36,960 housing units during the plan period, based on an Objectively Assessed Need set out in the Central Lincolnshire Strategic Housing Market assessment. This equates to an average building rate requirement of 1,540 units per year across the plan area. This will support an employment growth rate of 9%.
- 3.17 The Submission Draft Local Plan apportions the housing growth as follows:
- Lincoln Strategy Area – 64%
 - Gainsborough Strategy Area – 12%
 - Sleaford Strategy Area – 12%
 - with the remaining 12% to be accommodated in those rural settlements across the Local Plan area that are suitable for growth.
- 3.18 Applying that apportionment, the OAN for housing in the Gainsborough area is 4,435, equating to an annual need for 185 housing units to be provided each year though construction or conversion /adaptation.

⁶ The Central Lincolnshire Local Plan is to cover the period from 2012 to 2036.

3.19 As explained and discussed in Section 3 of this report, the actual percentage of the current population of Central Lincolnshire that are based in Gainsborough is 6%, so providing for 12% of the Local Plan area's new housing growth in Gainsborough represents something of a "step change". This is illustrated in Tables 1 and 2 which show, respectively the growth in

	Current % of Central Lincs	Current Stock	Increase in line with current stock	% Increase from current stock
Gainsborough	8	9,491	2,825	+30
Lincoln SA	64	78,858	23,654	+30
Sleaford	6	7,653	2,278	+30
Rural	23	28,180	8,203	+30
Totals	100	124,182	36,960	+30

	Growth Allocation %	Current Stock	Growth Allocation	% Increase from current stock
Gainsborough	12	9,491	4,435	+47
Lincoln SA	64	78,858	23,654	+30
Sleaford	12	7,653	4,435	+58
Rural	12	28,180	4,436	+16
Totals	100	124,182	36,960	+30

the total stock of housing units ("dwellings") that can be expected simply through continuation of recent trends and predicted "natural growth" (Table 1) and the significantly greater growth that would result from implementation of a planned intervention through which 12% of the total number of housing units to be provided for across Central Lincolnshire would be allocated to the Gainsborough Strategy Area (Table 2).

3.20 The effect would be to increase the number of housing units in the Gainsborough Strategy Area by 47% by 2036 – a substantially higher rate of growth than experienced in recent years but one that can be supported based on the available and deliverable housing sites that have been identified. Tables 5 and 6 on Page 14 set this in the wider Central Lincolnshire context.

3.21 The long-recognised need to achieve substantial urban regeneration and renewal in Gainsborough is an important factor when considering growth options. In this context, consideration has been given to the effects that each option may be expected to have on Gainsborough's economic, social and cultural vitality and viability and the ability to attract needed investment to the town. This element of need is less easy to quantify, but just as important to plan for, as both the scale and location of further housing and employment-creating development can be expected to significant factors.

Examining Potential Supply

3.22 With “need” quantified, in terms of requirements for new housing and employment-space over the Local Plan period, the next task has been to look at the potential “supply” of land and buildings from which those forecast needs could be met. Initially, the main objective has been to understand:

- whether, in broad terms, there appears to be a reasonable match between need and potential supply within the Sub-Region as a whole; and,
- again in broad terms, how land being promoted for potential development relates spatially to the options to be considered.

3.23 Relevant information relating to potential supply is contained principally in three documents:

- **Central Lincolnshire Strategic Housing and Economic Land Availability Assessment (SHELAA)**, which contains information about land considered by the local planning authorities or its owner to be potentially suitable for either housing or business/employment-creating development;
- **Central Lincolnshire Strategic Housing Land Availability Assessment (SHLAA)**, which, again, contains information about land considered by the local planning authorities or its owner to be potentially suitable for housing development;
- **Central Lincolnshire Economic Needs Assessment (ENA)**, which assesses future demand for jobs, employment land and premises to ensure future land allocations respond to local needs and maximise opportunities for sustainable economic growth; and,

3.24 Additionally, the following documents have provided particularly relevant contextual and statistical information:

- **Central Lincolnshire Strategic Housing Market Assessment;**

- **Sustainable Urban Extension Topic Papers for:**
 - **Gainsborough Southern Neighbourhood;**
 - **Gainsborough Northern Neighbourhood;**
- **Greater Gainsborough Housing Zone**
- **Gainsborough Regained Masterplan (suite of documents)**
- **West Lindsey District Strategic Flood Risk Assessment (suite of documents).**

3.25 Issues relating to the supply of land for employment-creating business development appear to relate more to location and quality than quantity. It seems unlikely that there will be any major problem overall in allocating sufficient land in appropriate locations to satisfy the requirement for land to be brought forward for business development and it is likely that some sites currently allocated for business uses may be re-allocated to residential and other uses. Development land quantity requirements for the Gainsborough Strategy Area therefore relate primarily to housing development.

Assessing Sustainability

3.26 The detailed evaluation outcome for each growth option is presented in Appendix A and is summarised very briefly in Table 7, below.

Table 7: Summary of sustainability assessment

OPTION 1: Gainsborough (town) + SUEs only	
Scored highest on:	Scored lowest on:
<ul style="list-style-type: none"> Supporting the manufacturing economic base (iv) Supply of new housing and employment land (vi) Supporting biodiversity and green infrastructure (viii) Flood risk management (x) Accessibility and connectivity through integrated transport (xi) Supports healthy communities (xiii) 	
OPTION 2: Gainsborough Built-up Area + Sustainable Urban Extensions [includes Lea and Morton]	
Scored highest on:	Scored lowest on:
<ul style="list-style-type: none"> Supporting the manufacturing economic base (iv) Supply of new housing and employment land (vi) Supporting biodiversity and green infrastructure (viii) Flood risk management (x) Accessibility and connectivity through integrated transport (xi) Supports healthy communities (xiii) 	

OPTION 3: Gainsborough BUA + Sustainable Urban Extensions + cluster of adjacent smaller settlements [includes villages such as Marton, Knaith and Corringham]	
Scored highest on:	Scored lowest on:
<ul style="list-style-type: none"> Strengthens the town centre Range of housing and employment sites (v) 	<ul style="list-style-type: none"> Supporting historic and built environment (vii) Supporting biodiversity and green infrastructure (viii) Accessibility and connectivity through integrated transport (xi)
OPTION 4: Dispersed growth, focusing on settlements best able to accommodate (sector-oriented) growth [Hemswell Cliff and Scotter could be included] + on-going sustainable development of Gainsborough	
Scored highest on:	Scored lowest on:
	<ul style="list-style-type: none"> Flood risk management (x) Accessibility and connectivity through integrated transport (xi)

3.27 The growth options that could be expected to achieve the greatest degree of sustainability overall are Options A and B, with no discernible difference between these two options.

3.28 Option C – the more dispersed pattern of development performs poorly compared with Options A and B.

3.29 Option D – also a more dispersed pattern, but with some concentration – also performs relatively poorly in the context of this study that focuses on sustainable urban growth for the Gainsborough area. However, there may be benefits in considering some elements of this option further in relation to strategy for the more rural parts of West Lindsey. This is explained further in Section 3.

3.30 Given the relative weakness of Gainsborough's "gravitational pull" at present, achievement of the regeneration and growth aspirations for the town may be expected to be highly vulnerable to impacts of growth in surrounding settlements that would, in effect, be competing to meet the same development demand. This warrants very careful consideration.

Assessing Deliverability

3.31 The purpose of this study has been to identify and recommend a growth option that is both sustainable and deliverable. Options A and B are considered to satisfy the sustainability criteria best, so the next step is to check whether there are good prospects of either or both being deliverable. The starting point for this has been to understand, in broad terms, the potential development capacity of land that can reasonably be expected to be available for development, based on the evidence available in the Urban Capacity Study, SHLAA, SHELAA and the topic papers relating to the Sustainable Urban Extensions that have already been proposed.

3.32 The main components that need to be aggregated to gain an understanding of the development capacity of these options are:

- i. Urban Capacity (ie, sites suitable and potentially available for development or redevelopment within the current Gainsborough built-up area; In this context proposals for the Greater Gainsborough Housing Zone are particularly relevant.
- ii. The capacities of the areas identified as potential Sustainable Urban Extensions (SUEs); and,
- iii. the capacities of any other potential development sites contiguous with the current built-up area

3.33 The capacities of other surrounding villages would only have needed to be included in the aggregation if the total capacity of i,ii and iii were found to be insufficient or there were likely to be significant problems in maintaining a 5-year supply of available housing land. However, Table 3 identifies that this is not the case and that the Submission Draft Local Plan has allocated sufficient developable land to ensure the ambitious level of growth can be delivered in the period to 2036.

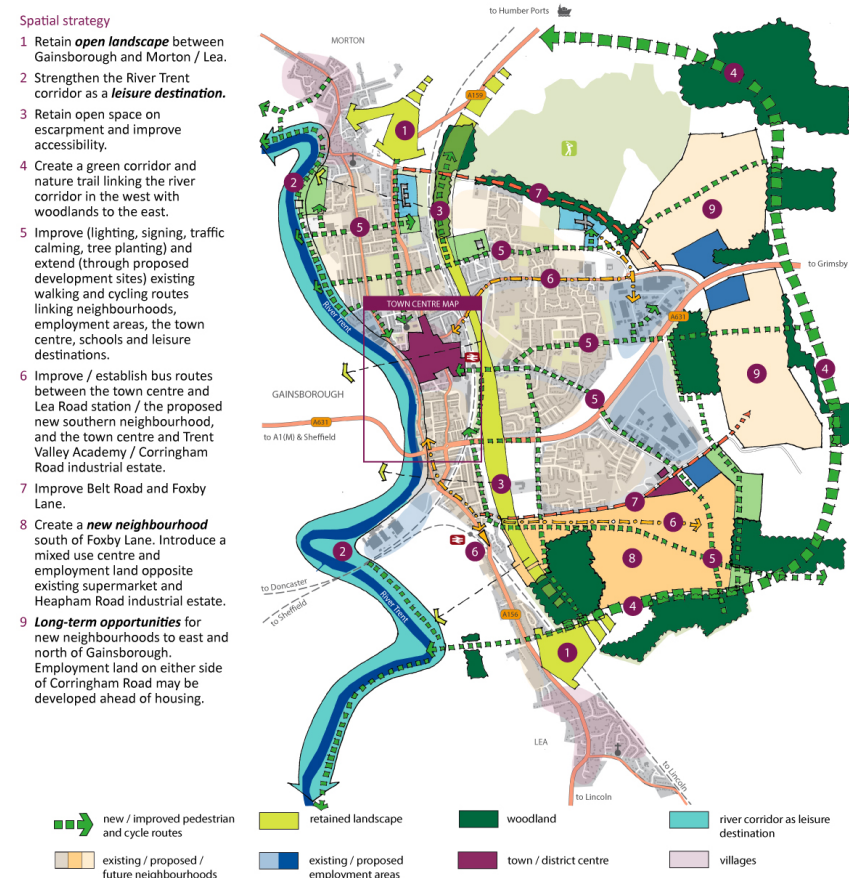
3.34 The plan at figure 1 illustrates the main development opportunities currently identified, including the three SUEs.

3.35 To grow the town by around 47% above the current housing stock, the scale of growth envisaged in apportioning to Gainsborough 12% of the total number of additional dwellings to be provided in Central Lincolnshire by 2036 is substantial. However, there area sufficient sites and capacity to accommodate this level of development, mostly through a combination of urban renewal (“brownfield”) sites, including those already identified in the Greater Gainsborough Housing Zone proposals, and the two identified Sustainable Urban Extensions SUEs. This has been confirmed by updated calculations completed by WLDC in March 2016 (see table 8), which set out how the housing target can be delivered. Options A and B, therefore, appears to be both feasible and sustainable. In arriving at this conclusion, due account has been taken of the need for accompanying infrastructure investments and of known flood risk constraints that effect some of the riverside areas within the built-up area.

Table 8: Gainsborough Housing Supply

Completions	319
Commitments	91
Housing Zone sites	1036
Southern SUE	1400
Northern SUE	750
Allocations with permissions	628
Other allocations	429
Total	4653 (Excluding windfall allowance)

Figure 2: Gainsborough Spatial Strategy (Reproduced from the Invest Gainsborough website: <http://www.investgainsborough.com>)



Placemaking

- 3.36 Alongside quantitative considerations, considerations of place are important; i.e., how best to plan for the identified quantities of development to be accommodated within the identified area in ways that will produce and maintain places that can work well and support healthy prosperous communities. In the context of this study, this has been approached by considering a number of placemaking principles (see Information Box 1 and Section 4) as well as assessing the performance of the alternative growth options against sustainability criteria. The placemaking principles and the sustainability criteria are interrelated.
- 3.37 The Spatial Strategy shown in the plan opposite illustrates the potential for embedding these Placemaking Principles as Gainsborough grows.

Information Box 1

Placemaking Principles

It is recommended that the placemaking principles listed below (all of which are consistent with the objectives of the National Planning Policy Framework) should be used as “markers” to be referred to throughout the process of determining the most suitable places for development and the relationships between different uses and activities:

- a) **Capacity**
- b) **Connectivity**
- c) **Proximity**
- d) **Efficiency**
- e) **Environmental well-being and Ecology**
- f) **Identity**
- g) **Self-sufficiency**

These placemaking principles are detailed further in section 5.

Critical Mass

- 3.38 As this study has been undertaken alongside a similar study of the Lincoln Policy Area, it is considered important to draw attention to a key difference between the two urban centres that emerged, initially, from the document review and has been reinforced by the findings relating to “self-containment”. Gainsborough cannot be treated as a “mini Lincoln”: as an urban centre, it is not only smaller, but significantly more fragile, less prosperous and more vulnerable to potentially harmful change. It appears that, in its relationship with its surrounding area, Gainsborough is in “competition” with a number of other urban centres – some quite distant from the town. A consistent theme that already emerges from a number of the documents that have been reviewed is a perceived need to build the “critical mass” necessary to support economic, social and cultural well-being. Lincoln is not without its own challenges in those areas, but it has sufficient “mass” to attract on-going development. Gainsborough’s situation is different. At present, the town has yet to achieve either the scale of growth or make full use of the regeneration opportunities that exist to be able to be confident in the power of its own gravitational pull: both need to be developed further and, therefore, the impacts of developments that would significantly disperse employment or housing will require particularly careful consideration.

4. Key Spatial Issues and Principles

4.1 The study so far has focused on reviewing and understanding the existing evidence base that is contained in a large number of surveys and reports. That information throws light on what has already happened and, to an extent, what is happening now, and it allows forecasting of what might happen in the future if certain trends continue and certain assumptions are made. However, in seeking the “best” outcomes – those that best support social, economic and environmental well-being – it will be necessary to decide whether the appropriate response is to accommodate trends or to seek to change them (or, most likely, a blend of the two). The evidence base does not, in itself, produce or dictate solutions: rather, it provides information that helps in identifying issues and requirements, formulating possible options, and assessing the relative benefits of alternative approaches.

4.2 Certain Key Principles need to be applied when considering and comparing options. Those listed below are all consistent with the objectives of the National Planning Policy Framework and it is recommended that they should be taken into account when considering and evaluating alternative options for promoting, accommodating, and managing growth within the Gainsborough area:

a) Capacity

A scale of growth that is realistic and desirable should be identified and the amount of additional floorspace and land required to accommodate it should be calculated so that options for delivery may be considered and compared, bearing in mind that growth may require spatial expansion, but this is not necessarily so in every case. Scope for promoting conversion and more intensive use of existing buildings and “densifying” parts of the existing built up areas should be given due consideration, alongside new-build and spatial expansion options.

b) Connectivity

The ways in which places connect – internally and with other places – is a key spatial consideration carrying complex and far-reaching impacts, including economic efficiency; scope for enterprise and innovation; resource use; social interaction; health and wellbeing; and wider environmental impacts. Consideration should include scope for economic, social and cultural interaction and the relationship between those interactions and economic and social well-being.

The desirability of connecting places (buildings, neighbourhoods, settlements, spaces...) so as to maximise benefits and minimise harm should inform the spatial definition of the area and the evaluation of growth options.

c) Proximity

Proximity and connectivity may interrelate – but not necessarily. Places may be close to each other but poorly connected (intentionally or unintentionally) or, conversely, they may be distant from each other but well connected (for instance, by good transport links – or by good ICT connection). Such relationships need to be considered carefully against objectives relating to matters such as transport modes; social and economic interactions; and, amenity and environmental expectations.

d) Efficiency

To an extent, efficiency may be a product of the three preceding principles – capacity, connectivity and proximity. Efficiency considerations include, minimising waste (time, resources, money...); and, maximising opportunity (for innovation and enterprise...). The

spatial distribution of buildings and activities impacts significantly on the achievement of efficiency, especially in the provision of necessary infrastructure, including costs of both initial provision and on-going maintenance.

e) Environmental well-being and Ecology

Two aspects of ecology need to be considered: the impact of urban activities and development on the natural environment and ecosystems, and the

“services” they provide (this may be termed “Green Infrastructure”) ; and, the working of urban regions a forms of ecosystems, within which synergies may be maximised.

f) Identity

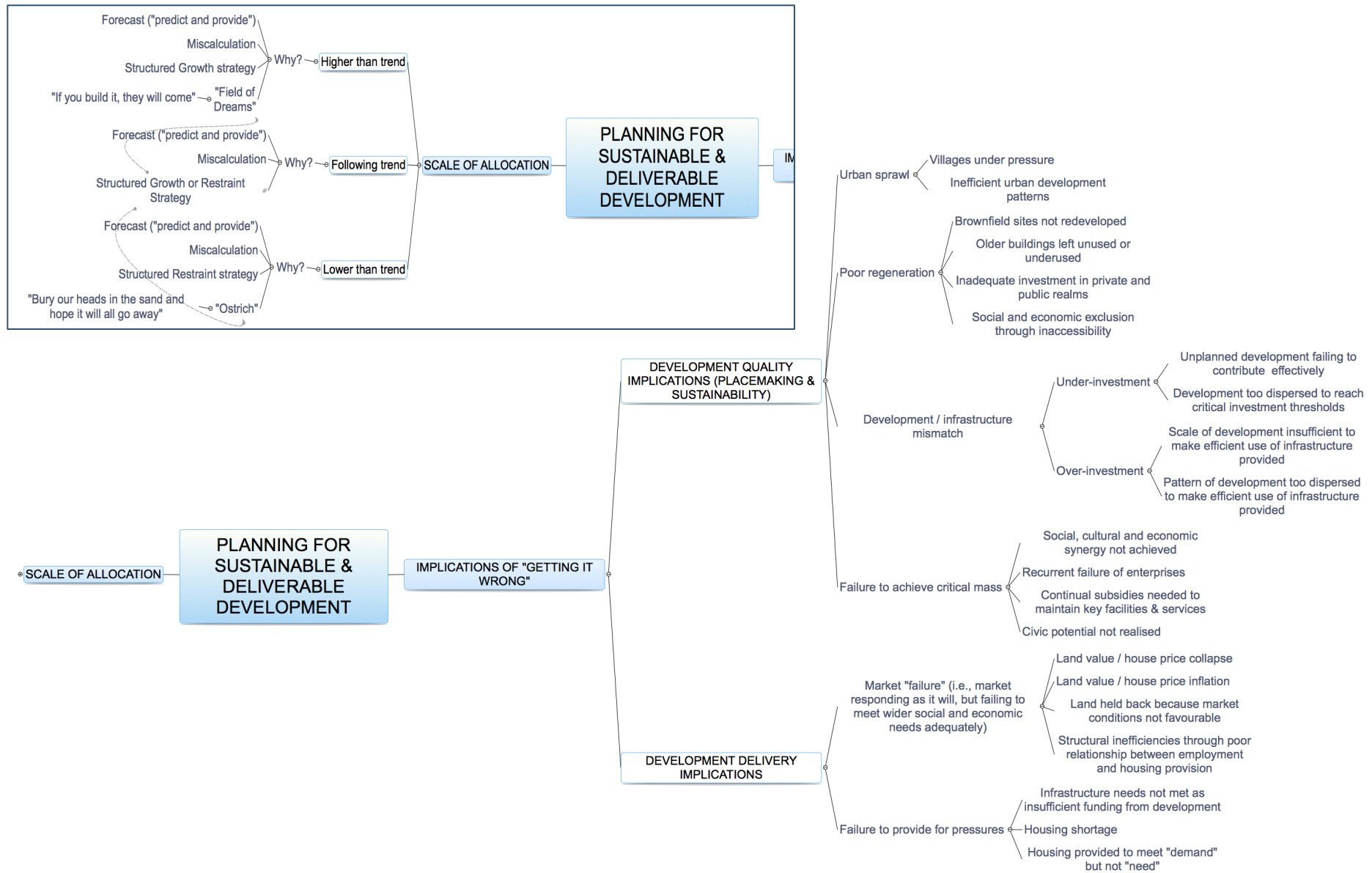
Community identity and sense-of-place are important factors. Gainsborough has a distinctive identity as a town; neighbourhoods within the town have their own identity; Lea and Morton each have their own identities, whilst also sharing something of the “Gainsborough” identity. The growth strategy needs to be informed by – and respect – this.

g) Self-sufficiency

The concept of self-containment has already been an important consideration in defining the spatial extent of the Gainsborough area. As a component of sustainability, interacting layers of self-sufficiency will also be considered when evaluating the growth options.

5. Risk Assessment Considerations

- 5.1 The purpose of this study has been to consider, at a broad level, the relative sustainability and deliverability of a number of urban growth options. The study has not considered individual sites in detail and its scope does not extend to quantifying the scale of need - for housing and employment land – in detail or recommending particular allocations: those are matters being addressed in the Central Lincolnshire Local Plan itself, with this study feeding in to that work as part of the evidence base.
- 5.2 As a contribution to the thought processes involved in those aspects of Local Plan preparation, we have, however, given some thought to the issues of:
- deciding on the scale of provision to be made for housing ; and,
 - considering the implications of either over-providing or under-providing when determining the overall quantities of land to be allocated for development.
- 5.3 Initial thoughts and suggestions relating to these matters are set out in the mind-maps on the next page. The larger map starts to identify implications of either over-estimating or under-estimating the scale of provision that needs to be made. The inset map explores reasons why allocations either higher or lower than the trend might be made. These are not exhaustive or definitive but have been included simply to aid the consideration of these issues.



6. Recommendations

6.1 This study has identified and defined the Gainsborough Strategy Area as an area where 12% of Central Lincolnshire's growth can and should be accommodated based on an assessment of sustainability criteria. For growth within the Gainsborough Strategy Area, once existing commitments are factored in, the focus for new allocations and growth should be:

- 1) maximising, sensitively, growth on urban sites in the Gainsborough urban area, allocating known sites and making a reasonable allowance for windfall on unallocated sites;
- 2) concentrating major growth on a series of SUEs, the identification of which should be the subject of separate evidence reports, though there is clear evidence available for us to conclude that two large scale SUE options are available;
- 3) providing for some growth of the immediately adjoining villages of Lea and Morton, managing the scale and form of such growth so as to maintain the individual identities and characters of these two villages.

APPENDIX 1: SUSTAINABILITY APPRAISAL OUTCOMES

In this Sustainability Appraisal four alternative growth options (A,B,C,D) for the Gainsborough Strategy Area were appraised against 15 Sustainability Objectives (numbered 2, 2a and 3 -14). The details of those options and objectives and the results of the appraisal are set out in this document.

The Sustainability Appraisal was undertaken on 23rd June 2015 by:

- from West Lindsey District Council, Oliver Fytche-Taylor and Luke Brown;
- and, from the consultants' team, Ivan Annibal and Steve Kemp.

The Sustainability Appraisal Mind-map has been reproduced as a “zoomable” image on page 17.

OPTION A - Gainsborough (town) + Sustainable Urban Extensions only

Full Description: Accommodate Gainsborough-related growth within the town of Gainsborough itself, plus one or more Sustainable Urban Extensions (of Gainsborough)

OPTION A: APPRAISAL OF IMPACTS IN RELATION TO SUSTAINABILITY OBJECTIVES	
1. Strengthens the functional and physical qualities necessary for the Town Centre to be a thriving destination for shopping, culture, leisure, learning and business	
✓	Likely to have a positive impact. Not next level of positivity (✓✓) though, because does not also strengthen hinterland - just Gainsborough itself
2. Supports strong commercial investment opportunities for developers and other partners delivering development on key Town Centre renewal sites	
✓	Positive impact expected, but existing proposals have had only limited success in attracting / securing further commercial investment interest (hence ✓, not ✓✓).
2a. Facilitates delivery of priority infrastructure schemes	
✓	Improves local infrastructure (within Gainsborough itself), but not wider.
3. Supports and promotes the manufacturing base of the economy	
✓	Concentrates employment in dense urban fabric of the town and therefore links to the current manufacturing cluster
4. Meets identified needs for a range of good quality housing and employment sites to ensure the housing stock meets the needs of the area and creates and improves access to high quality employment and training opportunities	
✓✓	Enables housing and employment requirements to be met in compact urban form, with SUEs providing range and choice additional to that available within existing town and BUA.
5. Provides supply of new housing and employment land on economically viable and deliverable sites	
✓	Some caution regarding viability and deliverability, based on recent experience.
6. Preserves and enhances built and historic environment, including the Town's setting and waterfront assets	
✓✓	Focuses investment and concentrates development in ways that should maximise these opportunities.
7. Conserve and enhance biodiversity through inclusion of green linkages and support green infrastructure	

0	Converts some land from open fields etc. to built-up area but within this there will be opportunities for maintaining / creating linkages and habitats - so, likely to be a neutral impact overall.
8. Promotes walking and cycling to reduce traffic and improve air quality and promote healthy lifestyles and maximise health and well being	
✓✓	Meets development requirements within most compact urban form achievable, so maximises opportunities to promote walking and cycling as alternatives to car use.
9. Is consistent with reducing and managing the risk of flooding	
+/-	Although the majority of sites are flood risk positive, key town centre sites are at some (manageable) risk - in Flood Risk Zones 2 and 3.
10. Achieves sustainable accessibility and connectivity through integrated transport solutions	
✓✓	Meets development requirements within most compact urban form achievable, so maximises opportunities for integrated, low-impact, socially-inclusive transport solutions.
11. Is consistent with the need to minimise carbon emissions and minimise pollution	
✓✓	Meets development requirements within most compact urban form achievable, so maximises opportunities for low-carbon transport solutions, with SUEs (in particular) also offering good scope for "green design" solutions in new built development.
12. Supports healthy communities and individuals	
✓	Meets development requirements within most compact urban form achievable, so maximises opportunities to reduce harmful transport emissions, with opportunities for physical activity (walking, cycling...) also contributing to healthy lifestyles and with opportunities for people to enjoy social / cultural contact enhancing mental well-being. However, a very high degree of compactness could result in some social stresses - hence ✓, not ✓✓.
13. Maximises opportunities for positive cultural, social and economic interaction to stimulate regeneration and ensure equitable outcomes for all	
✓✓	Meets development requirements within most compact urban form achievable, so maximises opportunities for social / cultural interaction and related facilitation of creative collaboration and enterprise.
14. Achieves broad community support	
✓	Unlikely to attract substantial opposition to principle (apart from some land-owning interests who may prefer a more dispersed development pattern)

OPTION B - Gainsborough Built-up Area + Sustainable Urban Extensions [includes Lea and Morton]

Full Description:

Accommodate Gainsborough-related growth within the Gainsborough Built-up Area (BUA), plus one or more Sustainable Urban Extensions [this includes Lea and Morton].

OPTION B: APPRAISAL OF IMPACTS IN RELATION TO SUSTAINABILITY OBJECTIVES	
1. Strengthens the functional and physical qualities necessary for the Town Centre to be a thriving destination for shopping, culture, leisure, learning and business	
✓	Likely to have a positive impact. Not next level of positivity (✓✓) though, because does not also strengthen hinterland - just Gainsborough itself
2. Supports strong commercial investment opportunities for developers and other partners delivering development on key Town Centre renewal sites	
✓	Positive impact expected, but existing proposals have had only limited success in attracting / securing further commercial investment interest (hence ✓, not ✓✓).
2a. Facilitates delivery of priority infrastructure schemes	
✓	Improves local infrastructure (within Gainsborough itself), but not wider.
3. Supports and promotes the manufacturing base of the economy	
✓	Concentrates employment in dense urban fabric of the town and therefore links to the current manufacturing cluster
4. Meets identified needs for a range of good quality housing and employment sites to ensure the housing stock meets the needs of the area and creates and improves access to high quality employment and training opportunities	
✓✓	Enables housing and employment requirements to be met in compact urban form, with SUEs providing range and choice additional to that available within existing town and BUA.
5. Provides supply of new housing and employment land on economically viable and deliverable sites	
✓✓	Provides broad range of sites, thus allowing a degree of choice and flexibility in delivery
6. Preserves and enhances built and historic environment, including the Town's setting and waterfront assets	
✓✓	Focuses investment and concentrates development in ways that should maximise these opportunities.

7. Conserve and enhance biodiversity through inclusion of green linkages and support green infrastructure	
✓	Converts some land from open fields etc. to built-up area but within this there will be opportunities for maintaining / creating linkages and habitats. Less continuous pattern of built development than OptionA, so likely to impacts more likely to be positive than neutral or negative.
8. Promotes walking and cycling to reduce traffic and improve air quality and promote healthy lifestyles and maximise health and well being	
✓✓	Meets development requirements within most compact urban form achievable, so maximises opportunities to promote walking and cycling as alternatives to car use.
9. Is consistent with reducing and managing the risk of flooding	
+/-	Although the majority of sites are flood risk positive, key town centre sites are at some (manageable) risk - in Flood Risk Zones 2 and 3. In this context, Morton appears to be much more constrained than Lea.
10. Achieves sustainable accessibility and connectivity through integrated transport solutions	
✓✓	Meets development requirements within most compact urban form, so maximises opportunities for integrated, low-impact, socially-inclusive transport solutions.
11. Is consistent with the need to minimise carbon emissions and minimise pollution	
✓✓	Meets development requirements within most compact urban form that maximises opportunities for low-carbon transport solutions, with SUEs (in particular) also offering good scope for "green design" solutions in new built development.
12. Supports healthy communities and individuals	
✓	Meets development requirements within a compact urban form , so maximises opportunities to reduce harmful transport emissions, with opportunities for physical activity (walking, cycling...) also contributing to healthy lifestyles and with opportunities for people to enjoy social / cultural contact enhancing mental well-being. However, a very high degree of compactness could result in some social stresses - hence ✓, not ✓✓.
13. Maximises opportunities for positive cultural, social and economic interaction to stimulate regeneration and ensure equitable outcomes for all	
✓✓	Meets development requirements within compact urban form, so maximises opportunities for social / cultural interaction and related facilitation of creative collaboration and enterprise.
14. Achieves broad community support	
+/-	Although the principle of consolidating and extending Gainsborough itself is unlikely to attract substantial opposition, proposals to expand Lea and Morton may well attract considerable numbers of objections.

OPTION C - Gainsborough BUA + Sustainable Urban Extensions + cluster of adjacent smaller settlements [includes villages such as Marton, Knaith and Corringham]

Full Description:

Accommodate Gainsborough-related growth in the Gainsborough BUA plus one or more Sustainable Urban Extensions and a cluster of adjacent smaller settlements within an identified area of self-containment [this includes villages such as Marton, Knaith and Corringham]

OPTION C: APPRAISAL OF IMPACTS IN RELATION TO SUSTAINABILITY OBJECTIVES	
1. Strengthens the functional and physical qualities necessary for the Town Centre to be a thriving destination for shopping, culture, leisure, learning and business	
✓✓	Likely to have a significantly positive impact because it strengthens Gainsborough's "hinterland" as well as the town itself.
2. Supports strong commercial investment opportunities for developers and other partners delivering development on key Town Centre renewal sites	
+/-	Positively focuses on Gainsborough, but may also disperse some of the investment needed (may, however, lead to benefits in terms of affordable rural housing)
2a. Facilitates delivery of priority infrastructure schemes	
?	Dispersed pattern not particularly helpful
3. Supports and promotes the manufacturing base of the economy	
✓	Additional housing opportunities in some of the villages may add to Gainsborough's attractiveness to employers if housing is of kind that appeals to senior managers.
4. Meets identified needs for a range of good quality housing and employment sites to ensure the housing stock meets the needs of the area and creates and improves access to high quality employment and training opportunities	
✓	Contributes to range and choice
5. Provides supply of new housing and employment land on economically viable and deliverable sites	
✓✓	Developers have tended to favour village locations so market viability is perceived to be "tried and tested".
6. Preserves and enhances built and historic environment, including the Town's setting and waterfront assets	
0	Unlikely to have significant impacts
7. Conserve and enhance biodiversity through inclusion of green linkages and support green infrastructure	

x	Likely to result in loss of green space but without critical mass of development that would support creation / maintenance / enhancement of green linkages.
8. Promotes walking and cycling to reduce traffic and improve air quality and promote healthy lifestyles and maximise health and well being	
x	Dispersed pattern of development - likely to be mostly housing - is unlikely to promote walking and cycling to a significant degree.
9. Is consistent with reducing and managing the risk of flooding	
✓	Reduced reliance on development in areas at risk of flooding in Gainsborough BUA.
10. Achieves sustainable accessibility and connectivity through integrated transport solutions	
+/-	More dispersed development likely to be quite heavily car-reliant and not conducive to provision of viable public transport. Depends on scale of growth in each settlement but unlikely to be great enough to substantially increase viability of public transport services in most cases. However, development in / extending Gainsborough BUA would have positive impact.
11. Is consistent with the need to minimise carbon emissions and minimise pollution	
x	Dispersed development likely to perpetuate "high-carbon" transport use.
12. Supports healthy communities and individuals	
0	Positive impacts of "village" life may be offset by harmful impacts - especially in main urban area - of continuing high levels of car use.
13. Maximises opportunities for positive cultural, social and economic interaction to stimulate regeneration and ensure equitable outcomes for all	
✓	Could improve opportunities in villages as well as town.
14. Achieves broad community support	
+/-	Consolidation / extension of Gainsborough probably largely supported, but expansion of some villages likely to be unpopular.

OPTION D - Dispersed growth, focusing on settlements best able to accommodate (sector-oriented) growth [Hemswell Cliff and Scotter could be included] + on-going sustainable development of Gainsborough

Full Description:

Disperse growth more widely (recognising the implications of the potential for growth of key sectors in the sub-region particularly renewables and agri-food), selecting those settlements with the best potential to accommodate growth [Hemswell Cliff and Scotter could be included], whilst also taking account of the need to support the on-going sustainable development of Gainsborough

OPTION D: APPRAISAL OF IMPACTS IN RELATION TO SUSTAINABILITY OBJECTIVES	
1. Strengthens the functional and physical qualities necessary for the Town Centre to be a thriving destination for shopping, culture, leisure, learning and business	
+/-	Likely to have a mixture of positive and negative impacts with balance depending on scale of development in the expanded village(s).
2. Supports strong commercial investment opportunities for developers and other partners delivering development on key Town Centre renewal sites	
0	Not likely to provide either significant support or significant hinderance unless development in expanded village(s) of "competitive" scale.
2a. Facilitates delivery of priority infrastructure schemes	
?	Development at Hemswell Cliff may support A15 improvements.
3. Supports and promotes the manufacturing base of the economy	
✓	Adds to economic diversity and builds on some core strengths.
4. Meets identified needs for a range of good quality housing and employment sites to ensure the housing stock meets the needs of the area and creates and improves access to high quality employment and training opportunities	
+/-	Diversifies employment offer. No discernible special benefits in terms of housing provision.
5. Provides supply of new housing and employment land on economically viable and deliverable sites	
+/-	Hemswell struggling at present because of nature of housing stock, so would benefit from diversification (social mix issues).
6. Preserves and enhances built and historic environment, including the Town's setting and waterfront assets	
0	Unlikely to have significant impacts

7. Conserve and enhance biodiversity through inclusion of green linkages and support green infrastructure	
0	Less likely to achieve this than Options A and B.
8. Promotes walking and cycling to reduce traffic and improve air quality and promote healthy lifestyles and maximise health and well being	
0	Less likely to achieve this than Options A and B.
9. Is consistent with reducing and managing the risk of flooding	
✓	Reduced reliance on higher risk sites in Gainsborough BUA.
10. Achieves sustainable accessibility and connectivity through integrated transport solutions	
x	Dispersed development unlikely to support public transport and other alternatives to car.
11. Is consistent with the need to minimise carbon emissions and minimise pollution	
x	Dispersed development likely to perpetuate "high-carbon" transport use.
12. Supports healthy communities and individuals	
+/-	May improve community health and well-being in Hemswell Cliff. Positive impacts of "village" life may be offset by harmful impacts - especially in main urban area - of continuing high levels of car use.
13. Maximises opportunities for positive cultural, social and economic interaction to stimulate regeneration and ensure equitable outcomes for all	
?	Mixture of dispersal and concentration: impact depends on mix.
14. Achieves broad community support	
+/-	Depends on definition of community. Hemswell Cliff community may support, but others may oppose.

The Sustainability Appraisal Mind-map

