

# **Integrated Impact Assessment Scoping Report for Central Lincolnshire's Local Plan**

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July 2014

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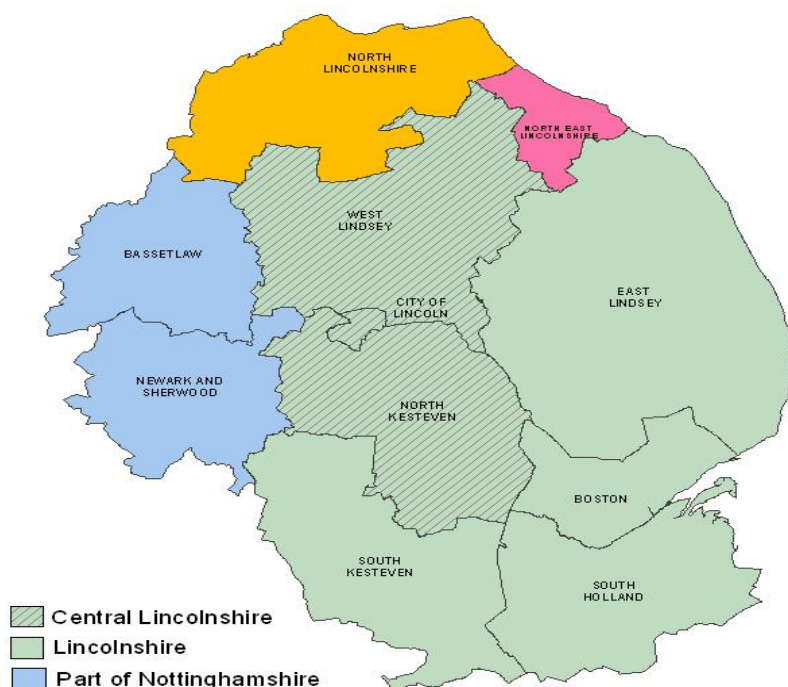
## **Non Technical Summary**

### **Introduction**

- i. This document is the Scoping Report for the impact assessment of the Central Lincolnshire Local Plan. It sets out how the policies in the Local Plan will be assessed for their impact on a range of social, economic and environmental objectives.
- ii. It is a consultation document for the three statutory consultation bodies with environmental responsibilities in England (Natural England, English Heritage and the Environment Agency) and has also been sent to other relevant local organisations for comment.

### **Central Lincolnshire Local Plan**

- iii. The Central Lincolnshire Authorities of City of Lincoln, North Kesteven and West Lindsey District Councils, supported by Lincolnshire County Council, are preparing a single Local Plan for the area. The Central Lincolnshire Local Plan will set out local planning policies to deliver economic growth, environmental protection and enhancement, and support strong, vibrant and healthy communities up to 2036. When adopted, it will replace the previous Local Plans adopted separately by the district authorities and planning applications will be determined in accordance with the new Central Lincolnshire Local Plan as well as national planning policy.



### **Purpose of Sustainability Appraisal**

- iv. The overall purpose of the sustainability appraisal process is to appraise the social, environmental and economic effects of the Local Plan at all stages of its preparation. This will help ensure that upon adoption and implementation the Local Plan will

contribute to achieving sustainable development. As such, the sustainability appraisal is integral to the plan making process.

### Integrated Impact Assessment

- v. The impact assessment of the Local Plan will adopted an integrated approach which incorporates the legal requirements of Sustainability Appraisal, Strategic Environmental Assessment and Equalities Impact Assessment. It also considers health and issues and effects by integrating a Health Impact Assessment with the other assessment requirements.
- vi. IIA is an approach that assesses the potential impact of proposals on issues that previously may have been assessed separately, such as economic, environmental, sustainability, equal opportunities and health and wellbeing.

### Summary of Sustainability Issues facing Central Lincolnshire

Sustainability Theme	Issue
Housing	<ul style="list-style-type: none"> <li>• Shortage in affordable housing supply to meet housing needs and current completion rates are below the level required to address the deficit.</li> <li>• The need to plan for a mix of housing types, tenures and sizes to meet local housing need based on demographic and market trends.</li> <li>• Quality and design of housing and impact on access, mobility and creating a sense of place</li> <li>• Meet the needs of Gypsies and Travellers by addressing any shortfalls in provision.</li> <li>• Demand for housing to meet the needs of specific groups, such as the student population in Lincoln.</li> </ul>
Healthy and Inclusive Communities	<ul style="list-style-type: none"> <li>• Meet the needs of the Central Lincolnshire population, including those of a growing ageing population, students etc.</li> <li>• A need to reduce the gap in health inequalities</li> <li>• A need to improve health and well being and provide opportunities to lead a healthy lifestyle</li> <li>• Need to reduce deprivation levels, in both rural and urban areas</li> <li>• Impact of poverty on accessing employment, housing, health services and transport</li> <li>• Reduce crime and anti-social behaviour, particularly in urban settlements.</li> </ul>
Biodiversity and Green Infrastructure	<ul style="list-style-type: none"> <li>• Protection of an ecological network of designated sites, habitats and species and the need to enhance and extend this network to</li> </ul>

	<p>reduce fragmentation.</p> <ul style="list-style-type: none"> <li>• Need to integrate biodiversity and green infrastructure into new development</li> <li>• Need to promote multi-purpose green infrastructure</li> <li>• Address deficiencies in access to strategic natural greenspace and Local Nature Reserves.</li> </ul>
Landscape, Townscape and Historic Environment	<ul style="list-style-type: none"> <li>• The need to conserve and enhance the distinctive character of the Central Lincolnshire landscape and townscape, including nationally designated landscapes such as the Lincolnshire Wolds AONB.</li> <li>• Opportunities to retain and reuse historic buildings where appropriate and reduce the number at risk.</li> <li>• Heritage assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance. Central Lincolnshire has nationally significant assets including Lincoln Cathedral and Castle and roman monuments.</li> <li>• Need to protect Central Lincolnshire's landscape and townscape from uncontrolled and unsympathetic development.</li> </ul>
Water	<ul style="list-style-type: none"> <li>• Need to protect and improve water quality</li> <li>• Improve water efficiency</li> <li>• Location and capacity of water infrastructure</li> </ul>
Air	<ul style="list-style-type: none"> <li>• Need to reduce greenhouse gas emissions.</li> <li>• Ensure housing and employment growth doesn't worsen any local air quality issues, particularly in AQMAs in Lincoln.</li> <li>• Address reliance on the private car and encourage sustainable modes of travel, including walking and cycling.</li> </ul>
Land Use and Soils	<ul style="list-style-type: none"> <li>• Prioritising the redevelopment of previously developed land would reduce pressure on Greenfield land.</li> <li>• Legacy of contaminated land, particularly in Lincoln. Contamination issues may arise through reusing previously developed land and may require remediation before new development can take place.</li> <li>• Parts of Central Lincolnshire are covered by high quality agricultural land.</li> </ul>
Waste	<ul style="list-style-type: none"> <li>• Reducing the amount of construction and</li> </ul>

	<p>demolition waste arising from new development.</p> <ul style="list-style-type: none"> <li>Increasing recycling rates across Central Lincolnshire.</li> </ul>
Climate Change (Adaptation and Mitigation)	<ul style="list-style-type: none"> <li>Climate change over the coming century is likely to increase the likelihood and consequences of flooding. Despite this development demands in the greater Lincoln area are likely to result in pressure to develop in areas at risk of flooding. Development coming forward in such areas will need to mitigate the impacts of climate change, to be safe itself and not increase flood risk to others. Need to ensure Central Lincolnshire is resilient to climate change.</li> <li>The need to cut greenhouse gas emissions.</li> <li>The need to mitigate and adapt to the effects of climate change.</li> <li>Need to reduce reliance on finite resources and explore alternative ways to increase the amount of energy generated by decentralised or renewable sources, taking into account local opportunities.</li> </ul>
Transport and Accessibility	<ul style="list-style-type: none"> <li>Reduce congestion in main urban settlements, particularly Lincoln and Sleaford.</li> <li>For those without access to a car, improving accessibility to employment, services and facilities is a key issue, especially in rural areas.</li> <li>Promoting sustainable modes of travel, including walking and cycling.</li> </ul>
Economy, Employment and Education	<ul style="list-style-type: none"> <li>Reduce dependency on limited number of employment sectors by growing and diversifying the economy</li> <li>Above county averages for percentage of 16 to 18 year olds not in education, employment or training and pockets of education, skills and training deprivation in the top 10% most deprived in the country.</li> <li>The need to broaden the skills base</li> <li>Attract inward investment</li> <li>Infrastructure to support sustainable economic growth</li> </ul>

## Summary of Integrated Impact Assessment Objectives

<b>Central Lincolnshire IIA Objectives</b>
<p><b>1. Housing.</b> To ensure that the housing stock meets the housing needs of the Central Lincolnshire area.</p>
<p><b>2. Health.</b> To reduce health inequalities, promote healthy lifestyles and maximise health and well being.</p>
<p><b>3. Social Equality and Community.</b> To stimulate regeneration that maximises benefits for the most deprived areas and communities in Central Lincolnshire. To also ensure equitable outcomes for all, particularly those most at risk of experiencing discrimination, poverty and social exclusion.</p>
<p><b>4. Biodiversity and Green Infrastructure.</b> To conserve and enhance biodiversity across Central Lincolnshire and provide opportunities for people to access and appreciate wildlife and the natural environment. To create and improve high quality green and blue spaces that are multifunctional, (including opportunities for sport, recreation and play), accessible to all and which form part of and are connected to the green infrastructure network.</p>
<p><b>5. Landscape and Townscape.</b> To protect and enhance the rich diversity of the character and appearance of Central Lincolnshire's landscape and townscape, maintaining and strengthening local distinctiveness and sense of place.</p>
<p><b>6. Built and Historic Environment.</b> To protect and enhance the significance of the buildings, sites and features of archaeological, historic or architectural and artistic interest and their settings, and ensure new buildings, spaces and places are designed to a high quality.</p>
<p><b>7. Natural Resources – Water.</b> To protect and enhance water resources and their quality in Central Lincolnshire.</p>
<p><b>8. Pollution</b> To minimise pollution (air, noise and light) and improve air quality.</p>
<p><b>9. Natural Resources – Land Use and Soils.</b> To protect and enhance soil and land resources and quality in Central Lincolnshire.</p>
<p><b>10. Waste.</b> To minimise the amount of waste generated across all sectors and increase the re-use, recycling and recovery rates of waste materials.</p>



**11. Climate Change Effects and Energy.**

To minimise the effects of climate change by developing the area's renewable energy resources, reducing dependency on fossil fuels, minimise energy usage, and to reduce greenhouse gas emissions from the area.

**12. Climate Change Adaptation and Flood Risk.**

To ensure Central Lincolnshire adapts to the effects of climate change, both now and in the future through careful planning and design of development, including reducing and managing the risk of flooding from all sources.

**13. Transport and Accessibility.**

To make efficient use of the existing transport infrastructure, reduce the need to travel by car, improve accessibility to jobs and services for all and to ensure that all journeys are undertaken by the most sustainable travel modes (particularly public transport, walking and cycling).

**14. Employment.**

To create and improve access to high quality employment and training opportunities for everyone within the Central Lincolnshire area.

**15. Local Economy.**

To encourage and support a competitive, diverse and stable economy and to protect and enhance Central Lincolnshire's hierarchy of centres to meet the needs of residents and visitors.

## **1. Introduction**

### **Central Lincolnshire Local Plan**

- 1.1. The Central Lincolnshire Authorities of City of Lincoln, North Kesteven and West Lindsey District Councils, supported by Lincolnshire County Council, are preparing a single Local Plan for the area. The Central Lincolnshire Local Plan will set out local planning policies to deliver economic growth, environmental protection and enhancement, and support strong, vibrant and healthy communities up to 2036. When adopted, it will replace the previous Local Plans adopted separately by the district authorities and planning applications will be determined in accordance with the new Central Lincolnshire Local Plan as well as national planning policy.
- 1.2. The Local Plan will set out a vision and set of objectives to explain what the policies in the plan are trying to achieve. The NPPF clearly states that the purpose of the planning system is to contribute to the achievement of sustainable development: “At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking” (para 14, NPPF). Therefore the IIA objectives set out in this Scoping Report will also form the objectives for the Central Lincolnshire Local Plan.

### **Statutory Requirements**

- 1.3. Both European and national legislation require local planning authorities to prepare sustainability appraisals of proposed land use or planning policies.

### **European**

#### **The SEA Directive**

- 1.4. Strategic Environmental Assessment of land use plans is a mandatory requirement of the SEA Directive 2001/42/EC<sup>1</sup> (the ‘SEA Directive’) as they are likely to have significant environmental effects.

### **National**

#### **The SEA Regulations**

- 1.5. The provisions of the SEA Directive are transposed into English law through The Environmental Assessment of Plans and Programmes Regulations 2004<sup>2</sup> (the ‘SEA Regulations’).
- 1.6. The SEA Regulations state that the SEA must consider the following topic areas in relation to the likely significant effects of the plan on the environment:

- Biodiversity
- Population
- Human health
- Flora and Fauna

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<sup>1</sup> EU Directive 2001/42/EC

<sup>2</sup> The Environmental Assessment of Plans and Programmes Regulations 2004, no 1633.

- Soil
- Water
- Air
- Climatic Factors
- Material Assets
- Cultural heritage, including archaeological and built heritage
- Landscape

### **Planning and Compulsory Purchase Act 2004**

1.7. Section 19(5) of the Planning and Compulsory Purchase Act 2004 requires a local planning authority to carry out a sustainability appraisal of each of the proposals in a Local Plan during its preparation. More generally, section 39 of the Act requires that the authority preparing a Local Plan must do so “with the objective of contributing to the achievement of sustainable development”.

### **Town and Country Planning (Local Planning) (England) Regulations 2012 (‘the 2012 Planning Regulations’)**

1.8. Regulation 17 of The 2012 Planning Regulations states that sustainability appraisal reports are a ‘proposed submission document’ and must be submitted to the Secretary of State with the Local Plan.

### **National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG)**

1.9. Paragraph 165 of the NPPF states “A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors”.

1.10. The NPPG clearly states that every Local Plan must be informed and accompanied by a Sustainability Appraisal. The Sustainability Appraisal plays an important part in demonstrating that the Local Plan reflects sustainability objectives and has considered reasonable alternatives.

### **Equalities Act 2010**

1.11. The Equality Act 2010 brings together and replaces all the previous discrimination legislation. The Act contains a new single public sector equality duty which brings together the previous race, disability and gender duties and extends coverage to the following:

- age
- gender reassignment
- pregnancy and maternity
- religion or belief
- sexual orientation and
- marriage and civil partnership (applicable only to the need to eliminate unlawful discrimination).

1.12. These are known as the 'protected characteristics' and are the grounds on which discrimination is unlawful. The duty requires local authorities, when exercising their functions, to have due regard to:

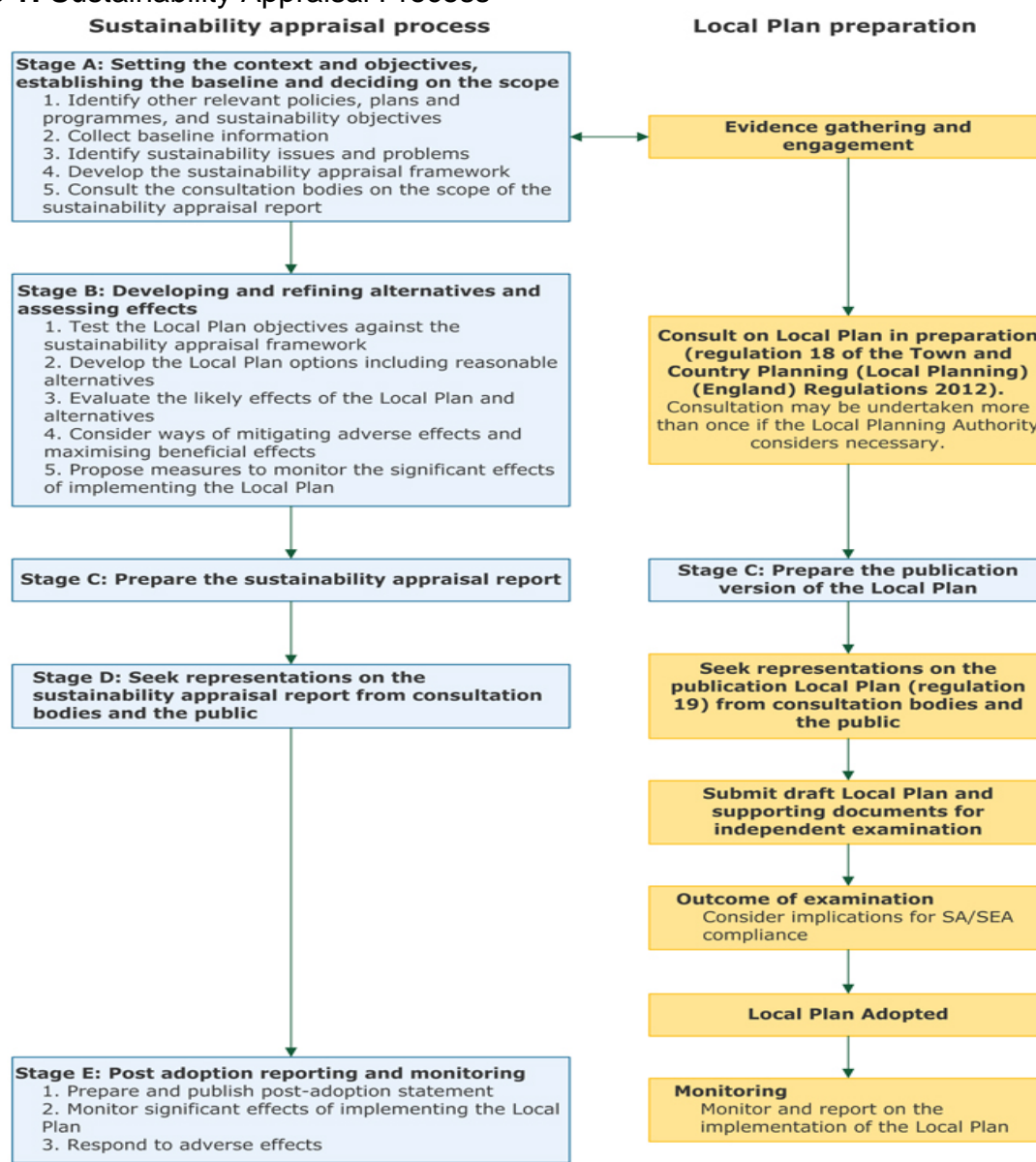
1. **Eliminate unlawful discrimination, harassment and victimisation** and any other conduct which is unlawful under the Equality Act 2010
2. **Advance equality of opportunity** between people who share a protected characteristic, and those who don't have that characteristic.
3. **Foster good relations** between people who share a protected characteristic, and those who don't have that characteristic. This means, in particular:

## 2. Purpose of Sustainability Appraisal and this Scoping Report

2.1. The overall purpose of the sustainability appraisal process is to assess the social, environmental and economic effects of the Local Plan at all stages of its preparation. This will help ensure that upon adoption and implementation the Local Plan will contribute to achieving sustainable development. As such, the sustainability appraisal is integral to the plan making process.

2.2. National Planning Practice Guidance identifies five discrete stages in the preparation of a sustainability appraisal as shown in Figure 1 below. This Scoping Report covers Stage A in this process.

**Figure 1: Sustainability Appraisal Process**



**Source:** National Planning Practice Guidance web based resource

## Integrated Impact Assessment

2.3. The impact assessment of the Local Plan will adopt an integrated approach which incorporates the legal requirements of Sustainability Appraisal, Strategic Environmental Assessment and Equalities Impact Assessment. It also considers health issues and effects by integrating a Health Impact Assessment with the other assessment requirements.

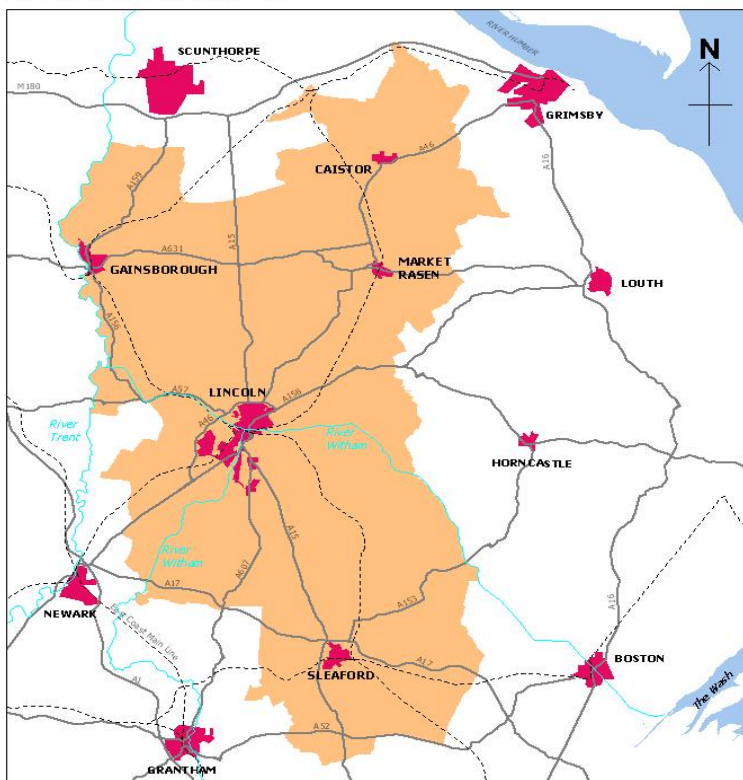
2.4. IIA is an approach that assesses the potential impact of proposals on issues that previously may have been assessed separately, such as economic, environmental, sustainability, equal opportunities and health and wellbeing. IIA therefore attempts to cover more than one type of impact assessment in a single process, avoiding the need to prepare and consult on separate impact assessment reports.

2.5. The results and outcomes of each assessment will be clearly documented in the final IIA Report.

## Geographic Scope of the IIA

2.6. The IIA will assess the potential impacts of the Central Lincolnshire Local Plan against the IIA Framework shown in chapter 14. The assessment will cover any geographical areas affected by such impacts within Central Lincolnshire, and if appropriate, beyond the boundaries of Central Lincolnshire into neighbouring local authority areas. The shaded area in the map in figure 2 below depicts the Central Lincolnshire area and the map in figure 3 shows Central Lincolnshire in relation to neighbouring local authority areas.

**Figure 2 – Map of Central Lincolnshire**



**Figure 3 – Map of Local Authority Context**



### **Purpose of this Scoping Report**

2.7. The main purpose of the Scoping Report is to set out the proposed methodology for carrying out the IIA of the policies in the Central Lincolnshire Local Plan. It will set out the scope and level of detail of the information to be included in the Final IIA Report that will accompany the Local Plan that is submitted for examination.

2.8. Following consultation with the statutory consultation bodies (English Heritage, Natural England and the Environment Agency), the Scoping Report will be finalised and used as a framework to assess the policies in the Local Plan.

### **Structure of this Scoping Report**

2.9. The Scoping Report has been structured around the following headings:

#### **What is the policy context?**

2.10. The first stage in the IIA process is to establish the context in which the Local Plan is being prepared by undertaking a review of other plans, policies and strategies relevant to the Local Plan. The Central Lincolnshire Authorities have already considered a number of strategies and reports in starting preparation on the Local Plan. However, to meet the requirements of SA and SEA, this Scoping Report needs to consider international, national and regional documents that are likely to have relevant environmental protection and sustainability objectives. It meets the requirements of the SEA Directive to provide information on “*the relationship [of the Local Plan] with other relevant plans and programmes*” (Schedule 2, Regulation 12 (3)).

#### **What is the current baseline?**

- 2.11. The collection of baseline data is a key component of IIA, helping to identify sustainability issues and assess the likely effects of policies in the Local Plan. This section of the Scoping Report meets the requirements of the SEA Directive to consider *“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan”* and *“the environmental characteristics of the areas likely to be significantly affected”* (Schedule 2, Regulation 12 (2 and 3)).

**Are there any evidence gaps?**

- 2.12. Following the review of policy and baseline data, it is important to identify any gaps in information, whether due to the information not being currently monitored or that it has not yet been reported on. Identifying these gaps at this stage provides an opportunity to develop methods for future monitoring. Also it is possible that additional sources may be discovered through consultation on the Scoping Report.

- 2.13. This section meets the requirements of Schedule 2 (Regulation 12(8)) of the SEA Directive to report on *“...how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information”*.

**What are the key issues that should be a focus for the appraisal?**

- 2.14. Following a review of policy and collection of baseline data, this section describes key sustainability issues for Central Lincolnshire that should be a particular focus for the Local Plan and IIA.
- 2.15. This section meets the requirements of Schedule 2 (Regulation 12(4)) to report on *“...existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance”*.

**What will be the likely future situation without the Local Plan?**

- 2.16. This section looks at how the baseline for Central Lincolnshire might evolve under a business as usual scenario, i.e. if the Local Plan was not prepared and adopted. Predictions on the future baseline have been based on an analysis of past trends and professional judgement.
- 2.17. This section of the Scoping Report meets the requirements of the SEA Directive to consider *“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan”*.

**What are the key objectives that need to be considered?**

- 2.18. This section sets out the IIA objectives that have been formulated to reflect the key social, economic and environmental issues facing Central Lincolnshire. These objectives form part of the IIA Framework of objectives and decision making questions that will be used to assess the Local Plan.
- 2.19. The NPPF clearly states that the purpose of the planning system is to contribute to the achievement of sustainable development: “At the heart of the National Planning Policy



Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking” (para 14, NPPF). Therefore the IIA objectives set out in this Scoping Report will also form the objectives for the Central Lincolnshire Local Plan.

### **3. HOUSING**

#### **What is the policy context?**

##### **National Planning Policy Framework and Practice Guidance**

3.1. Local planning authorities are required to have a clear understanding of housing needs in their area with a view to boosting significantly the supply of housing. To deliver a wide choice of high quality homes and create sustainable, mixed communities, the NPPF requires local planning authorities to plan for a mix of housing based on demographic and market trends and the needs of different community groups. They should also identify the size, type, tenure and range of housing that is required in particular locations.

##### **Planning Policy for Traveller Sites (March 2012)**

3.2. This document sets out the Government's planning policy for traveller sites, replacing ODPM Circular 01/2006: Planning for Gypsy and Traveller Caravan Sites and Circular 04/2007: Planning for Travelling Showpeople. It sets out the Government's aims in respect of Traveller's sites, including:

- To ensure that local planning authorities, working collaboratively, develop fair and effective strategies to meet need through the identification of land for sites.
- To encourage local planning authorities to plan for sites over a reasonable timescale.
- That plan-making and decision-taking should protect Green Belt from inappropriate development.
- For local planning authorities to ensure that their Local Plan includes fair, realistic and inclusive policies.
- To increase the number of traveller sites in appropriate locations with planning permission, to address under provision and maintain an appropriate level of supply.
- To reduce tensions between settled and traveller communities in plan making and planning decisions.
- To enable provision of suitable accommodation from which travellers can access education, health, welfare and employment infrastructure.
- For local planning authorities to have due regard to the protection of local amenity and local environment.

##### **Central Lincolnshire Strategic Housing Market Assessment (SHMA) 2011**

3.3. This study is designed to increase understanding of Central Lincolnshire's housing markets, and trends in housing demand, need and affordability. It also seeks to determine the influence of inward and outward migration and commuting patterns on the area's housing markets, and the implications of this for the delivery of housing.

#### **What is the current baseline?**

##### **Housing Stock**

3.4. As at 31 March 2012 there are approximately 131,271 homes in Central Lincolnshire. This includes private sector, housing association and local authority housing<sup>3</sup>.

3.5. Across the Central Lincolnshire Housing Market, detached housing comprises 42% of the total housing stock, 31% are semi detached, 20% are terraced and 8% are flats. Bungalows form a significant proportion of the stock, where over 25% of all private sector dwellings in West Lindsey and North Kesteven are bungalows<sup>4</sup>.

3.6. The SHMA considered bedroom requirements for future residential development. The figures show that 70% of future requirements for social rented housing is for smaller homes (1 and 2 bedrooms); and 65-70% of future requirements for other tenures are for larger homes (3+ bedrooms being the greatest need).

3.7. For 2011/12, the net number of additional dwellings for the Central Lincolnshire area was 990.

## Average House Prices

**Table 1: Average House Prices<sup>5</sup>**

Year*	Lincolnshire	East Midlands	England and Wales
1995	55,804	55,572	62,226
1996	51,820	52,647	59,871
1997	51,860	52,533	61,379
1998	53,248	55,370	66,757
1999	54,571	56,685	70,107
2000	57,863	61,158	79,369
2001	64,168	66,979	87,200
2002	72,715	76,457	98,143
2003	95,838	100,842	122,417
2004	114,078	116,668	138,747
2005	131,678	131,473	155,016
2006	132,604	134,906	159,566
2007	140,944	141,843	172,106
2008	144,593	144,176	181,358
2009	128,041	123,233	154,628
2010	125,368	126,615	162,372
2011	125,065	125,542	161,552
2012	121,218	121,996	160,106
2013	119,864	121,552	161,633
2014	123,785	127,344	168,356

<sup>3</sup> Central Lincolnshire Annual Monitoring Report 2011/12, March 2013

<sup>4</sup> Central Lincolnshire Strategic Housing Market Assessment 2011 available at <http://www.central-lincs.org.uk/>

<sup>5</sup> <http://www.landregistry.gov.uk/public/house-prices-and-sales>

\*House prices taken in January

3.8. House prices tend to be around or below average prices for the East Midlands region. Between 2000 and 2010, the average property price in Lincoln rose by 148.6%, in West Lindsey by 135.9% and in North Kesteven by 120.6%. House prices across Central Lincolnshire have fallen since 2008 and affordability for first time buyers remains an issue but has improved slightly.<sup>6</sup>

### **Affordable Housing**

3.9. Affordable housing is housing provided for those who cannot afford to buy or rent on the open market. It includes social rented housing and intermediate housing. The SHMA identifies a total housing need of 45, 200 homes by 2031, of which 18, 200 should be affordable homes. Of this 18, 200, 16, 200 should be social rent/affordable rent and 2,000 intermediate housing. The total number of affordable housing completions in Central Lincolnshire in 2011/12 was 250, 25% of the total net housing completions for the area in this time period.

### **Rural Housing**

3.10. The provision of rural housing is a key issue for Central Lincolnshire, given that just under 50% of all resident are classed as living in rural areas. The SHMA identifies a need for 4, 400 affordable homes in the rural areas.

### **Homelessness**

3.11. Within Central Lincolnshire, the highest proportion of statutory homeless households is to be found within Lincoln however, the total number of statutory homeless households has continued to decrease across Central Lincolnshire since 2004.

### **Empty Homes**

3.12. The Lincolnshire Empty Homes Strategy 2010-2013 sets out a multidisciplinary action plan to tackle this issue.

**Table 2: Vacant dwellings Central Lincolnshire**

	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
<b>Total vacant dwellings</b>	5,426	4, 953	5, 491	5,224	4,384
<b>Private dwellings vacant for 6 months or more</b>	3,363	2,458	1,969	2,093	2,001

<sup>6</sup> Central Lincolnshire Strategic Housing Market Assessment 2011 available at <http://www.central-lincs.org.uk/>

### **Decent Homes**

3.13. The SHMA identified that 35.8% of all private sector dwellings in Central Lincolnshire are considered to be non decent when assessed against the Decent Homes Standard. As a comparison, 35.3% of all dwellings in England were assessed as being non decent by the survey of English Housing in 2006.<sup>7</sup>

### **Fuel Poverty**

3.14. The Government has set out a new definition of fuel poverty in 2014. The new definition finds a household to be Fuel Poor if household income is below the poverty line (taking into account energy costs), and household energy costs are higher than is typical for their household type. Households in the private sector are more likely to be in fuel poverty due to lower average energy efficiency in these dwellings and lower household incomes. Fuel poverty in West Lindsey is above the county average. The most recent data release identifies that 19.65% of all households in Central Lincolnshire are in fuel poverty.

### **Specific Housing Needs**

3.15. A national Gypsy and Traveller caravan count is undertaken bi-annually. In July 2013, there were 123 caravans on authorised sites and 15 caravans on unauthorised sites across Central Lincolnshire<sup>8</sup>. There were also 2 Travelling Showpeople caravans. The recently completed Central Lincolnshire Gypsy and Traveller Accommodation Assessment<sup>9</sup> concluded that there is a need for 72 new permanent residential pitches, 4 emergency stopping places and 1 Travelling Showpeople yard over a 20 year period to 2033. According to the survey undertaken with Gypsies and Travellers in the study area the preferred size for permanent/residential sites is for small, family sized sites.

### **Are there any evidence gaps?**

- Supply and demand for student housing.
- Up to date Housing Market Assessment. The Central Lincolnshire Local Authorities have recently commissioned a Strategic Housing Market Review and Update with a draft report expected October 2014.

### **What are the key issues that should be a focus for the appraisal?**

- Shortage in affordable housing supply to meet housing needs and current completion rates are below the level required to address the deficit.
- The need to plan for a mix of housing types, tenures and sizes to meet local housing need based on demographic and market trends.
- Quality and design of housing and impact on access, mobility and creating a sense of place
- Meet the needs of Gypsies and Travellers by addressing any shortfalls in provision.
- Demand for housing to meet the needs of specific groups, such as the student population in Lincoln.

<sup>7</sup> Central Lincolnshire Strategic Housing Market Assessment 2011 available at <http://www.central-lincs.org.uk/>

<sup>8</sup> <https://www.gov.uk/government/collections/traveller-caravan-count>

<sup>9</sup> Central Lincolnshire Gypsy and Traveller Accommodation Assessment, RRR Consultancy Ltd, November 2013

### **What will be the likely future situation without the Local Plan?**

- Lack of housing delivery could result in housing that is not affordable, located in unsustainable locations a long way from where people work and overcrowding in existing housing. This would have a negative effect on health and health inequalities and quality of life.
- Current trends also indicate a shortfall in permanent Gypsy and Traveller pitches. Without the Local Plan, under provision is unlikely to be addressed.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to housing:

- To ensure that the housing stock meets the housing needs of the Central Lincolnshire area.

Please see the IIA Framework in chapter 16 for the decision making questions and indicators relating to these objectives.

## **4. HEALTHY AND INCLUSIVE COMMUNITIES**

### **What is the policy context?**

#### **National Planning Policy Framework and Practice Guidance**

4.1. National Planning Policy recognises that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. Both the built and natural environment are major determinants of health and well being. National policy makes clear that Local Planning Authorities should ensure that health and wellbeing, and health infrastructure are considered in local and neighbourhood plans and in planning decision making.

4.2. The NPPF requires that *“developments create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. Places should contain clear and legible pedestrian routes, and high quality public spaces, which encourage the active and continual use of public areas.”*

#### **Equalities Act 2010**

4.3. The Equality Act 2010 harmonises and replaces previous equalities legislation (such as the Race Relations Act 1976 and the Disability Discrimination Act 1995). The Act defines discrimination in terms of nine “protected characteristics”: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; and sexual orientation. The Act introduces new common basic definitions of direct and indirect discrimination in addition to other extended provisions.

#### **Marmot Review (2010) Fair Society, Healthy Lives: A Strategic Review Of Health Inequalities in England Post 2010.**

4.4. The Report concluded that reducing health inequalities will require action on six policy objectives, including "Create and develop healthy and sustainable places and communities".

#### **Department of Health (2010) Healthy Lives, Healthy People, White Paper, Our Strategy for Public Health in England**

4.5. The white paper is clear that pollution, air quality, noise, the availability of green and open spaces, transport, housing, access to good-quality food and social isolation all influence the health and wellbeing of the local population.

4.6. It recognised that climate change is one of the biggest public health threats of the 21st century, with the potential to increase health inequalities.

#### **Lincolnshire County Council (2011) Joint Strategic Needs Assessment and online updates**

4.7. The JSNA sets out priorities for future strategy development and commissioning in Lincolnshire based on the substantial review of healthcare, social care and health improvement needs of the population. These priorities are:

- promoting healthy lifestyles;
- improving health and well being for older people;
- delivering high quality systematic care for major causes of ill health and disability;
- improving health and reducing health inequalities for children;
- reduce worklessness

**NHS Lincolnshire and Lincolnshire County Council Joint Health and Well Being Strategy for Lincolnshire 2013-2018, (September 2012).**

4.8. Based on the priorities in the Joint Strategic Needs Assessment, the Joint Health and Well Being Strategy aims to inform and influence decisions about health and social care services in Lincolnshire.

4.9. The five themes of the Strategy are:

- Promoting healthier lifestyles;
- Improve the health and wellbeing of older people in Lincolnshire;
- Delivering high quality systematic care for major causes of ill health and disability;
- Improving health and social outcomes and reducing inequalities for children;
- Tackling the social determinants of health.

**Lincolnshire Sustainable Services Review: A Blueprint for Future Health and Care Services in Lincolnshire, Final Draft November 2013**

4.10. Health and social care organisations have come together to review health and care services in Lincolnshire recognising that the health and social care system in Lincolnshire is facing significant challenges. They have published a 'blueprint' for the future delivery of services that would meet the needs of the population both now and in the future.

4.11. One of the main principles in the 'blueprint' is the ambition to treat less people in major hospital settings, including A&E, and instead meeting the vast majority of people's health and care needs in the community, near to where they live. A key recommendation is the development of 'Neighbourhood Teams' across the county to fulfil this ambition.

4.12. The Local Plan will need to take account of this review as it progresses to ensure the provision of health and social care services and growth take account of one another.

**What is the current baseline?**

**Health**

4.13. The World Health Organisation defines health as: *"...a state of complete physical, mental and social well being and not merely the absence of disease or infirmity."* Health therefore encompasses both physical and mental health. It is a cross cutting issue that can be influenced by a range of policy areas, including housing, employment, education and skills, transport, air quality and green infrastructure.



4.14. The health of people living in Central Lincolnshire is mixed compared to the England average but is generally worse in Lincoln.

**Table 3: Key Health Statistics for Central Lincolnshire**

Indicator	Lincoln	West Lindsey	North Kesteven	Lincolnshire	England
Life Expectancy (males) (2009-11)	77.2	79.2	80.3	78.9	78.9
Life Expectancy (females) (2009-11)	81.9	82.9	83.7	82.8	82.0
Obese children % Reception year (2012)	10.2	12.4	8	10.2	-
Obese Children % Year 6 (2012)	22.9	19.3	17.3	19.5	19.2
Obese Adults % (2012)	57.6	68.6	65.5	68.2	63.8
Adult participation in 30 minutes, moderate intensity sport	37.2	38.9	37.3	32.4	35.3
Early Deaths: Heart Disease and Stroke (per 100,000) (2009-11)	71.9	57.2	44.8	62.1	60.9
Early Deaths: Cancer (per 100,000) (2009-11)	131.9	107.1	105.4	107.4	108.1
Road Traffic Injuries and Deaths (per 100,000) (2012)	43	31	44	4	35
Excess Winter Deaths	10	70	100	280	24,200 (England and Wales)

**Sources:** Community Health Profiles for Lincoln, West Lindsey and North Kesteven 2013, Lincolnshire Road Safety Partnership, Sport England's Active People Survey, NHS Information Centre, Public Health England, ONS

### **Life Expectancy**

4.15. Within Central Lincolnshire, significant health inequalities exist. Geographical disparities in life expectancy exist for both males and females, where between some wards the gap is as much as 17 years. In Lincoln, life expectancy is lower than the national average for both males and females. Life expectancy elsewhere is above the national average.

### **Death Rate**

4.16. In Lincoln, the rate of early death from heart disease, stroke and cancer continues to fall but remains worse than the national average. Other parts of Central Lincolnshire are around the national average.

### **Obesity and Physical Inactivity**

4.17. Rates of obesity above the county and national average, particularly in young children in Lincoln and West Lindsey. Obesity rates in adults are around the county and national average. The percentage of adults participating in 30 minutes moderate intensity sport is above the county and national average across the Central Lincolnshire districts.

### **Road Safety**

4.18. The rates for road traffic injuries and deaths are above the county and national average in Lincoln and North Kesteven, but below in West Lindsey.

### **Access to Services**

4.19. Access to primary care services is difficult in some parts of Central Lincolnshire particularly in rural areas, and for older people and those without access to a car. This is particularly an issue in West Lindsey, where only 37.6% of households are within 30 minutes of a GP on foot or via public transport<sup>10</sup>.

### **Access to healthy food**

4.20. An audit of Green Infrastructure in Central Lincolnshire identified 79ha of allotments and community gardens across Central Lincolnshire<sup>11</sup>. In Lincoln, there are 18 allotment sites which comprise over 1100 plots. Allotment provision is clustered in the north and southeast of the city, with no provision in the southwest and few in the northeast/east. A strategic review of allotment provision in Lincoln<sup>12</sup> estimated that between 240 and 560 new plots or (9.2ha to 21.4ha) will be required in the city by 2031.

### **Social Equality and Community**

#### **Population**

4.21. The population of Central Lincolnshire on Census Day in 2011 was 299, 557<sup>13</sup>, an increase of 15.6% from 2001 when it was 259,132. The Central Lincolnshire area has one of the fastest growing populations in the East Midlands and is expected to grow at a rate above the national average.

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<sup>10</sup> Department of Transport and LRO 2010, accessed online at [www.research-lincs.org.uk](http://www.research-lincs.org.uk)

<sup>11</sup> Central Lincolnshire Green Infrastructure Study, 2011

<sup>12</sup> Strategic Review of Allotment Provision, April 2012, Mott MacDonald

<sup>13</sup> Census 2011

### **Density**

4.22. The majority of Central Lincolnshire is sparsely populated, with a population density of 1.2 people per hectare in North Kesteven and 0.8 people per hectare in West Lindsey. Lincoln is the most densely populated Local Authority in Lincolnshire at 27 people per hectare<sup>14</sup>.

### **Age**

4.23. Overall, Central Lincolnshire has an ageing population that is predicted to increase at a faster rate than regionally or nationally. The proportion of children and those of working age is predicted to fall.<sup>15</sup>

### **Gender**

4.24. The gender distribution in Central Lincolnshire is 48.9% males and 51.1% females (ONS, 2009).

### **Sexual Orientation and Gender Reassignment**

4.25. Data on sexual orientation and gender reassignment is not collected through the Census which is the main source of demographic data. Therefore, there is no accurate data in the numbers of men and women in Central Lincolnshire that are gay, lesbian, bi-sexual or transgendered. Using an estimated national rate of 1.5%, the lesbian, gay and bi-sexual population of Central Lincolnshire is estimated to be 4, 240 (ONS, 2010).

4.26. The transgender population of Central Lincolnshire is estimated to be 1, 696 using the estimated national rate of 600 per 100, 000 population (Gender Identity Research and Education Society, 2009).

### **Ethnicity**

4.27. In 2009, the majority of Central Lincolnshire population was estimated to be white. The ethnic population in Central Lincolnshire is low compared to both the regional and national average.

### **Religion and Belief**

4.28. The 2011 Census showed that the majority of Central Lincolnshire population describe themselves as Christian. The largest % of minority religions can be found in Lincoln. The low numbers of people following other religions is related to the low ethnic population in the area.

### **Disability**

4.29. The 2011 Census revealed that 25, 064 people across Central Lincolnshire felt that their day to day activities are limited a lot.

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<sup>14</sup> Office for National Statistics, accessed online at neighbourhood statistics 2.4.14

<sup>15</sup> Lincolnshire – A Local Economic Assessment 2011

**Table 4: Limiting Long Term Illness**

Central Lincolnshire	East Midlands	England
25, 064	393, 242	4, 405, 394

Source: 2011 Census

**Table 5: Total number of Disability Living Allowance Claimants (August 2010)**

Central Lincolnshire	East Midlands	England
14, 760	234, 620	2, 609, 180

Source: ONS

### Deprivation

4.30. According to the Index of Multiple Deprivation 2010, the Central Lincolnshire districts are ranked 62<sup>nd</sup> (Lincoln), 171<sup>st</sup> (West Lindsey) and 270<sup>nd</sup> (North Kesteven) out of 326 Local Authority districts for multiple deprivation as a whole, where by the lower the number, the more deprived the area is. Parts of Lincoln and Gainsborough feature in the top 10% most deprived Super Output Areas in England for all domains of deprivation. However, some rural areas of Central Lincolnshire also experience deprivation, particularly in relation to the Barriers to Housing and Services domain.

### Child poverty

4.31. There are some parts of Central Lincolnshire where there are high numbers of children living in poverty. This is particularly an issue in some Lower Super Output Areas in Lincoln and Gainsborough, where over 40% of children are classed as living in poverty.<sup>16</sup> Since 2007, 15 wards in Lincolnshire have consistently had the highest number of children living in poverty, over half of which are in the district of Lincoln.

### Crime and Community Safety

4.32. As would be expected for an urban area, Lincoln has an overall crime rate above that of West Lindsey and North Kesteven. However, the overall crime rate per 1,000 population is continuing to fall across Central Lincolnshire. Recorded violence against the person offences has also continued to fall. Lincoln has a noticeably higher rate than the other districts in Central Lincolnshire, with a value that is above the county, regional and national value.

4.33. In terms of recorded anti-social behaviour incidents, Lincoln has a rate above the county average, in contrast to North Kesteven and West Lindsey where rates are below the county average. However, these figures mask pockets of significantly high levels of anti-social behaviour, most notably in Gainsborough, where one Lower Super Output area has a rate of 194 incidents per 1,000 population, one of the highest rates in the county overall.

<sup>16</sup> Lincolnshire County Council Child Poverty Strategy, May 2012

4.34. Central Lincolnshire has 3 Crime and Disorder Reduction Partnerships (also known as Community Safety Partnerships). These partnerships have a statutory duty to work together to develop and implement strategies to reduce crime and disorder.

### **Are there any evidence gaps?**

### **What will be the likely future situation without the Local Plan?**

- Health and social care services may not keep pace with new development impacting on people's ability to access these services.
- The Local Plan can influence the wider determinants of health in relation to the environment, local economy and community that could impact on physical and mental health and help reduce health inequalities.

### **What are the key issues that should be a focus for the appraisal?**

- Meet the needs of the Central Lincolnshire population, including those of a growing ageing population, students etc.
- A need to reduce the gap in health inequalities.
- A need to improve health and well being and provide opportunities to lead a healthy lifestyle.
- Need to reduce deprivation levels, in both rural and urban areas.
- Impact of poverty on accessing employment, housing, health services and transport.
- Reduce crime and anti-social behaviour, particularly in urban settlements.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to health and inclusive communities:

- To reduce health inequalities, promote healthy lifestyles and maximise health and well being.
- To develop socially diverse, cohesive and safe communities to improve the quality of life for local residents, and to ensure equitable outcomes for all communities, particularly those most at risk of experiencing discrimination, poverty and social exclusion.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **5. BIODIVERSITY AND GREEN INFRASTRUCTURE**

### **What is the policy context?**

**International and National Legislation includes:**

- 5.1. **The Ramsar Convention on Wetland of International Importance (1971)** is a commitment by the signatories to conserve wetlands of international importance, especially waterfowl habitat.
- 5.2. **Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979** To protect endangered species and their habitats.
- 5.3. **The Wildlife and Countryside Act (as amended) 1981** provides for the protection of all wild birds and a number of other wild animals and plants in England and Wales. Section 28G of the Act also places a duty on local authorities to further the conservation and enhancement of the flora, fauna or geological or physiographical features for which a Site of Special Scientific Interest is selected.
- 5.4. **The Countryside and Rights of Way Act 2000** provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty.
- 5.5. **The Natural Environment and Rural Communities (NERC) Act 2006** places a duty on all Local Authorities in England and Wales to have regard to the conservation of biodiversity when carrying out their normal functions. Under Section 41 of the Act, the Secretary of State is required to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England
- 5.6. **European Union (2009) Conservation of Wild Birds (Birds Directive) 2009/147/EC** recognises that habitat loss and degradation are the most serious threats to the conservation of wild birds. It therefore places great emphasis on the protection of habitats for endangered as well as migratory birds.
- 5.7. **The Conservation of Habitats and Species Regulations 2010 (the Habitats Directive)** consolidates the various amendments to the European Union (1992) Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) 92/43/EEC. All Local Authorities have a duty to have regard to the requirements of the Habitats Directive in exercising their functions as set out in Regulation 9 (5).

**Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services (DEFRA, 2011)**

- 5.8. The aim of the Strategy is to guide conservation efforts in England up to 2020. Moving further on from 2020, the ambition is to move from a net biodiversity loss to gain. The strategy includes 22 priorities which include actions for the following sectors:

- Agriculture
- Forestry
- Planning and Development
- Water Management
- Marine Management
- Fisheries
- Air Pollution
- Invasive Non-Native Species

### **The Natural Choice: Securing the Value of Nature (June, 2011)**

5.9. The Natural Environment White Paper sets out a vision that “by 2060, our essential natural assets will be contributing fully to robust and resilient ecosystems, providing a wide range of goods and services so that increasing numbers of people enjoy benefits from a healthier natural environment”.

5.10. Key measures introduced by the White Paper most relevant to the Local Plan are:

- creation of Local Nature Partnerships,
- creation of New Improvement Areas,
- retain the protection and improvement of the natural environment as core objectives of the planning system and take strategic approach to planning for nature within and across local areas,
- creation of a new ‘Local Green Areas’ designation to allow local people to protect the green areas that are important to them.

### **National Planning Policy Framework and Guidance**

5.11. The NPPF clearly sets out that part of achieving sustainable development is a move from a net loss of biodiversity to a net gain and that planning should contribute to conserving and enhancing the natural environment.

5.12. Local Planning Authorities should seek opportunities to work collaboratively with other partners, including Local Nature Partnerships, to develop and deliver a strategic approach to protecting and improving the natural environment based on local priorities and evidence. It refers to the need to:

- plan for biodiversity at a landscape-scale across local authority boundaries;
- identify the local ecological network;
- promote the preservation, restoration and re-creation of priority habitats, ecological networks and species;
- identify suitable indicators for monitoring biodiversity in the plan; and
- aim to prevent harm to geological conservation interests.

**Nature Nearby: Accessible Natural Greenspace Guidance (March 2010), Natural England**

5.13. Natural England's Accessible Natural Greenspace Standard recommends that everyone, wherever they live, should have accessible natural greenspace:

- of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home;
- at least one accessible 20 hectare site within two kilometre of home;
- one accessible 100 hectare site within five kilometres of home; and
- one accessible 500 hectare site within ten kilometres of home; plus
- a minimum of one hectare of statutory Local Nature Reserves per thousand population.

**Spaces for People: Targeting Action for Woodland Access (The Woodland Trust, 2010)**

5.14. The Woodland Trust has developed a Woodland Access Standard. The Standard aspires:

- That no person should live more than 500m from at least one area of accessible woodland of no less than 2ha in size,
- That there should also be at least one area of accessible woodland of no less than 20ha within 4km (8km round trip) of people's homes.

**Lincolnshire Biodiversity Partnership (2011) Lincolnshire Biodiversity Action Plan 2011 - 2020 (3rd Edition).**

5.15. Vision: "Lincolnshire and its neighbouring seas are much richer in biodiversity". Overall aims:

- Conserve and enhance Lincolnshire's biodiversity; recreating habitats on a landscape scale and developing networks of interlinked natural areas – a 'living landscape' of which wildlife is an integral part, not confined to specially protected sites.
- Ensure that biodiversity is recognised as an essential element of life in the historic county of Lincolnshire: including its contributions to health and wellbeing; the economy, recreation and tourism; and provision of ecosystem services (such as flood protection, retention of water resources, carbon storage and crop pollination).
- Ensure biodiversity conservation is sustainable; the benefits are felt by society, the economy and the environment.
- Provide and gather biodiversity information to monitor progress and enable individuals and organisations to make decisions based on sound evidence.

5.16. No specific indicators or targets but actions around the need for planning policies to protect and enhance BAP habitats.

**Lincolnshire Biodiversity Partnership (2010) Lincolnshire Local Geodiversity Action Plan**



5.17. Vision: "The historic county of Lincolnshire should be a place where people understand and care about geodiversity, where geodiversity is recognised as part of healthy functioning ecosystems and where geodiversity is a natural consideration in policies and decision making for the benefit and well-being of our communities". Objectives:

- To develop and maintain an audit of the geodiversity resource in Lincolnshire
- To conserve and develop the geodiversity of Lincolnshire
- To have geodiversity included in relevant plans and policies of all local and regional authorities and relevant organisations by 2015
- To raise awareness of geodiversity among local authorities, professional partners, landowners and managers, across all levels of education and the general public
- To create a positive feedback system enabling effective reporting, monitoring and review of the LGAP to partners and other interested parties
- To create a sustaining LGAP that will actively pursue funding to enable it to achieve its aim.

5.18. Target: To have geodiversity included in relevant plans and policies of all local and regional authorities and relevant organisations by 2015.

#### **Biodiversity Opportunity Mapping Study for Central Lincolnshire, October 2013**

5.19. The Biodiversity Opportunity Mapping Study<sup>17</sup> provides an overview of the broad spatial characteristics for the protection, recreation and expansion of Central Lincolnshire's ecological network. The Biodiversity Opportunity Maps presented in the study aim to identify opportunity areas for habitat creation and enhancement. The results of the study are presented at two different spatial scales:

- Central Lincolnshire: broad priority areas for each habitat type are identified along with strategic project areas;
- City of Lincoln/Sustainable Urban Extensions/Witham Valley Country Park: priority areas for each habitat type are identified along with specific projects.

#### **Green Infrastructure Study for Central Lincolnshire, December 2011**

5.20. In December 2011, A Green Infrastructure Study for Central Lincolnshire<sup>18</sup> was completed. The study sets out a proposed Green Infrastructure Network for Central Lincolnshire which defines specific areas within which it is recommended that investment in new and enhanced Green Infrastructure provision be prioritised. The Study summarised the needs and opportunities for safeguarding and enhancing Green Infrastructure. These included:

- A need to reverse the loss and fragmentation of natural and semi natural habitats in Central Lincolnshire;
- Creation of an ecological network to deliver local and regional biodiversity targets;

<sup>17</sup> <http://www.glnp.org.uk/lincolnshire-landscapes/central-lincolnshire-biodiversity-opportunity-mapping.php>

<sup>18</sup> Chris Blandford Associates 2011 Green Infrastructure Study for Central Lincolnshire

- Need to protect open land from development in and around the settings of settlements, in particular Lincoln, Gainsborough and Sleaford;
- Need to promote high quality design of new development to enhance the integrity and local distinctiveness of its landscape and townscape context;
- A need to retain and increase woodland;
- Opportunities to promote and support high quality, locally produced food;
- Embed generation of renewable energy into the Green Infrastructure network;
- A need to improve opportunities for accessing the recreational value of waterways through new or enhanced visitor and waterway infrastructure;
- A need to address deficiencies of accessible natural greenspace and Local Nature Reserves based on Natural England's Accessible Natural Greenspace Standard. Overall, a large proportion of the strategic greenspaces within Central Lincolnshire have no (or restricted) public access. The main deficiencies are to be found to the north of Lincoln and in the Sleaford and Gainsborough area.
- The Study identified a 55 ha deficiency in Local Nature Reserves for existing populations, plus an additional deficiency of 146ha by 2031 to meet the needs of future populations.

### **Central Lincolnshire Indoor and Built Sports Facilities Study, Playing Pitch Strategy and Informal Outdoor Sports Study, July 2013**

5.21. These studies provide an evidence base relating to the supply and demand of sports facilities and sports participation across the Central Lincolnshire area.

5.22. The Playing Pitch Strategy concluded there are sufficient playing pitches and outdoor sports facilities in quantitative terms across Central Lincolnshire to meet current demand. However, that there were pockets of unmet demand for some sports such as Rugby and quality improvements needed in some areas which are impacting on the attractiveness of facilities to users.

5.23. In terms of future demand, new facilities will be required in areas of high population growth, especially Gainsborough, Lincoln and Sleaford.

### **What is the current baseline?**

**Table 6: Designated Sites in Central Lincolnshire, March 2014**

<b>Designation</b>	<b>Number of Sites in Central Lincolnshire</b>
<b>National Nature Reserves</b>	1
<b>Sites of Special Scientific Interest (SSSIs)</b>	23
<b>Local Nature Reserves</b>	7
<b>Local Wildlife Sites</b>	354
<b>SNCIs/SINCs/County Wildlife Sites</b>	242
<b>Ancient Woodland</b>	42

**Source:** Natural England, Lincolnshire Biodiversity Partnership

### **National Nature Reserves (NNRs)**

5.24. NNRs represent many of the finest wildlife and geological sites in the country. Bardney Limewoods is Central Lincolnshire's only NNR. It comprises of a group of small woods, the largest of which is Chambers Farm Wood, covering an area of 384 ha. The woods are considered to be the most important example of small leaved lime woodland in Britain.

### **Sites of Special Scientific Interest (SSSIs)**

5.25. SSSIs are designated areas of land which are considered to be of special interest due to their fauna, flora and/or geological features. There are 23 SSSIs within Central Lincolnshire, covering 526 hectares. There has been no change in total area between 2011 and 2013. SSSIs within Central Lincolnshire include Swanholme Lakes and Greetwell Hollow in Lincoln, Linwood Warren and Bardney Limewoods in West Lindsey and Metherringham Heath Quarry and Wilsford and Rauceby Warren in North Kesteven. In April 2013, 203.6 ha of SSSI were considered to be in favourable condition, 156 ha in recovering condition and 149 ha neither favourable nor recovering<sup>19</sup>.

### **Local Nature Reserve (LNR)**

5.26. LNRs are sites of local importance for wildlife, geology, education or public enjoyment. There are 7 LNRs within Central Lincolnshire; Whisby Nature Park, Swanholme Lakes, Mareham Marshes, Cross O'Cliff Orchard, Lollycocks Field, Theaker Avenue and Owlet.

### **Local Wildlife Sites**

5.27. Local Wildlife Sites are areas of land with significant wildlife value (previously known as SNCIs, SINCs or County Wildlife Sites). There are a total of 354 LWSs within Central Lincolnshire<sup>20</sup>, covering a total of 6682.043 hectares. Of these, 189 (51%) are in positive conservation management.

### **Roadside Verges**

5.28. Roadside verges can play an important role in acting as corridors interlinking fragmented or isolated habitats. If sensitively managed, they can increase the biodiversity of the verges themselves. In Lincolnshire, the richest verges are found on the alkaline soils of chalk and limestone. There are 65 Roadside Nature Reserves throughout Lincolnshire with a total distance of over 50 miles. There are two Life on the Verge projects covering the Central Lincolnshire area which aim to identify the importance of roadside verges for flora.

### **Woodland**

5.29. Ancient woodland is defined as land that has been continually wooded since at least 1600AD. There are two broad types of ancient woodland; ancient semi-natural and planted ancient woodland. In Central Lincolnshire, there are 42 Ancient Woodlands covering an area of some 2,473 hectares.

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<sup>19</sup> Natural England, Lincolnshire Research Website, accessed on 6.2.14

<sup>20</sup> Greater Lincolnshire Nature Partnership, 23.4.14

5.30. The Woodland Trust has gathered data on accessible woodlands and undertaken an analysis of woodland access provision and deficit across the UK. The data for Local Authorities in Central Lincolnshire is shown in Table 7 below.

**Table 7: Accessibility to Woodland**

<b>Geographical Area</b>	<b>% population with access to a 2ha or more woodland within 500m</b>	<b>% population with access to a 20ha or more woodland within 4km</b>
England	14.5	63
East Midlands	9.4	50
Lincolnshire	5.7	32.4
Lincoln	18.1	53.1
North Kesteven	3.1	20.8
West Lindsey	6.4	36.9

**Source:** Woodland Trust, Spaces for People: Targeting Action for Woodland Access

### **Biodiversity Opportunities**

5.31. The Biodiversity Opportunity Mapping study identifies 13 Biodiversity Opportunity Areas in Central Lincolnshire:

- Gainsborough Woodlands
- Lincolnshire Limewoods
- River Ancholme
- Trent Vale
- River Till and Fosdyke Navigation
- River Brant and Upper Witham
- Lower Witham Peatlands and Barlings Eau
- River Slea
- Heathland/Acid Grassland North of Gainsborough
- Heathland/Acid Grassland around Market Rasen
- Mosaic South-West of Lincoln
- Calcareous Grassland South of Lincoln
- Lincolnshire Wolds Calcareous Grassland

### **Are there any evidence gaps?**

- Comprehensive quantity, accessibility and quality assessments of open space by typology.

### **What will be the likely future situation without the Local Plan?**

- Statutorily protected wildlife sites would still be afforded considerable protection under current legislation, however non statutory sites would be at risk from unplanned development without the Local Plan.
- Opportunities to extend the ecological network or strategic green infrastructure network could be missed without a co-ordinated approach through the Local Plan.

### **What are the key issues that should be a focus for the appraisal?**

- Protection of an ecological network of designated sites, habitats and species and the need to enhance and extend this network to reduce fragmentation.
- Need to integrate biodiversity and green infrastructure into new development.
- Need to promote multi-purpose green infrastructure.
- Address deficiencies in access to strategic natural greenspace and Local Nature Reserves.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to biodiversity and green infrastructure:

- To conserve and enhance biodiversity across Central Lincolnshire and provide opportunities for people to access and appreciate wildlife and the natural environment. To create and improve high quality green and blue spaces that are multifunctional, (including opportunities for sport, recreation and play), accessible to all and which form part of and are connected to the green infrastructure network.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **6. LANDSCAPE, TOWNSCAPE AND HISTORIC ENVIRONMENT**

### **What is the policy context?**

**International and National Legislation includes:**

- 6.1. **Council of Europe (2000) European Landscape Convention (Florence Convention)** - highlights the importance of developing landscape policies dedicated to the protection, management and creation of landscapes. Defines 'landscape character' as: "*a distinct and recognisable pattern of elements that occur consistently in a particular type of landscape.*"
- 6.2. **Council of Europe (1985) The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)** - Recognition that conservation of heritage is a cultural purpose and integrated conservation of heritage is an important factor in the improvement of quality of life
- 6.3. **Council of Europe (1992) The European Convention for the Protection of Archaeological Heritage (Valetta Convention)** - Agreement that the conservation and enhancement of archaeological heritage is one of the goals of urban and regional planning policy. It is concerned in particular with the need to for co-operation between archaeologists and planners to ensure optimum conservation of archaeological heritage.
- 6.4. **Countryside and Rights of Way (CroW) Act 2000** Requires all relevant authorities to have regard to the purpose of conserving and enhancing the natural beauty of AONBs when performing their functions.

### **National Planning Policy Framework and Practice Guidance**

- 6.5. A core principle in the NPPF is that Local Planning Authorities should recognise the intrinsic character and beauty of the countryside. Local plans should include strategic policies for the conservation and enhancement of the natural environment, including landscape. This includes designated landscapes but also the wider countryside. The NPPG states that where appropriate, landscape character assessments should be prepared to complement natural England's National Character Area profiles.
- 6.6. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk, and in doing so should recognise that heritage assets are an irreplaceable resource.
- 6.7. The NPPF states that, "*the Government attaches great importance to the design of the built environment*". According to the NPPF, local planning authorities should develop policies that set out the quality of development that will be expected for the area. In addition to the design of buildings, planning policies should address the connections between people and places and the integration of new development into the natural, built and historic environment.

### **National Heritage Protection Plan 2011 to 2015**

6.8. This plan provides a national framework for heritage protection and covers the whole of the historic environment. The Plan is organised around a series of eight Measures for enhancing protection of the historic environment, together with the supporting actions (such as training and community engagement) necessary to ensure their successful delivery. Measures most relevant to the Local Plan include “Assessment of Character and Significance” and “Management of Planned Change in the Historic Environment”.

### **East Midlands Regional Landscape Character Assessment (EMRLCA (April 2010)**

6.9. The principal aim of the EMRLCA is to put in place a consistent and robust landscape evidence base at a regional level. It will also ensure that holistic landscape considerations that extend beyond administrative boundaries inform and enable greater integration with and between other environmental themes and projects.

6.10. The EMRLCA identifies a total of 31 Regional Landscape Character Types (RLCTs). There are 8 RLCTs associated with Central Lincolnshire.

### **The Historic Landscape Characterisation Project for Lincolnshire 2011**

6.11. The project has identified 10 character areas within the county, and 3 to 5 complimentary character zones for each character area. Central Lincolnshire is covered by 6 of the 10 character areas. The project identifies factors which may cause changes to the landscape in the future.

### **The Lincoln Fringe Character Project 2011**

6.12. The Lincoln Fringe Character project aims to describe each place or ‘Character Area’ according to its historical development and its current character. As well as being useful to developers and Development Management in submitting and assessing planning applications, the character areas will also be useful sources of information to inform the development of planning policy.

### **Lincolnshire Wolds AONB Management Plan 2013 – 2018**

6.13. Makes clear the Lincolnshire Wolds AONB is a national landscape asset containing a variety of attractive landscapes including wolds, downlands, woodlands, moorlands and heaths, rivers and streams, estuaries, marshes and coast. Sets out the special qualities of the AONB, condition, pressures and trends and management options.

### **What is the current baseline?**

6.14. Within the Central Lincolnshire landscape, there are many areas of special interest which have been designated for their landscape value.

### **Area of Outstanding Natural Beauty**

6.15. The Lincolnshire Wolds Area of Outstanding Natural Beauty lies partly within the boundary of Central Lincolnshire, the remainder being in East Lindsey, and is the only AONB in the East Midlands region. It covers a total area of 588 square kilometres (119.5 of which lie within Central Lincolnshire) and comprises a distinctive and cohesive rolling upland landscape. The AONB Management Plan 2013-2018 describes the dramatic

escarpment, ridge and plateau-tops as highly visible and in many cases, the most sensitive to visual change

### ***Landscape Character***

#### **National**

6.16. National character areas divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries, making them a good decision making framework for the natural environment. Natural England is currently updating and revising the character profiles for each character area.

6.17. Central Lincolnshire falls within 6 National Character Areas. Some of their key characteristics are summarised below:

#### ***43 Lincolnshire Wolds***

- Predominantly agricultural landscape;
- A diverse geology of chalk, sandy limestone, ironstone and clay gives rise to a combination of elevated plateau and deep-sided dales;
- Woodland is limited particularly to the north but there are occasional shelterbelts, hedgerow trees and scattered beech clumps;
- Isolated chalk and neutral grasslands typically on the steepest uncultivated slopes;
- A sparse settlement pattern of small market towns and small nucleated villages (often in sheltered valleys) and scattered farmsteads;
- A diverse geology gives rise to a variety of building materials including brick, sandy limestone, sandstone and ironstone with churches built of local stone;
- A historically and archaeologically rich landscape of small parklands and modest country houses.

#### ***44 Central Lincolnshire Vale***

- A predominantly broad, low-lying, very gently undulating arable vale;
- A landscape crossed by many streams flowing from the Wolds towards the heavily modified courses of the main rivers;
- Woodland cover is variable with little on the central and northern clay soils, much more on the Coversands and Fen Edge Gravels including extensive conifer plantations, while there is a concentration of ancient lime woodland between Wragby and Bardney;
- Very limited semi-natural habitat, most being lost through drainage and commercial agriculture and forestry;
- A landscape rich in medieval sites with remnant ridge and furrow, deserted medieval villages and a cluster of monastic sites close to the River Witham, while Lincoln Cathedral, just outside the Vale, in the west provides a landmark across much of the area;
- Traditional building materials predominantly of brick and pantile reflecting the availability and suitability of local clay with stone from surrounding areas used in churches and high-status buildings;



- A deeply rural, tranquil landscape with sparsely distributed small nucleated settlements and isolated farmsteads.

#### **45 Northern Lincolnshire Edge & Coversands**

- Prominent scarp slope of Lincoln 'Cliff' marks western edge of area;
- Open landscape with rectilinear fields and few boundaries. Where enclosure still present, a mixture of limestone walls, discontinuous hedges and shelter belts;
- Sparse settlement on top of escarpment. Spring-line villages to west at foot of 'cliff' and small parklands to east towards the clay vale;
- Active and redundant airfields;
- Roman roads and ancient track ways.

#### **46 The Fens**

- Expansive, flat, open, low-lying wetland landscape influenced by the Wash estuary;
- Woodland cover is sparse; predominant land use is arable – wheat, root crops, bulbs, vegetables and market gardening made possible by actively draining reclaimed land areas;
- Open fields, bounded by a network of drains and the distinctive hierarchy of rivers (some embanked), have a strong influence on the geometric/rectilinear landscape pattern;
- Settlements and isolated farmsteads are mostly located on the modestly elevated 'geological islands' and the low, sinuous roddon banks (infilled ancient watercourses within fens)

#### **47 Southern Lincolnshire Edge**

- As 45 Northern Lincolnshire Edge & Coversands

#### **48 Trent & Belvoir Vales**

- A gently undulating and low-lying landform in the main, with low ridges dividing shallow, broad river valleys, vales and flood plains;
- Agriculture is the dominant land use, with most farmland being used for growing cereals, oilseeds and other arable crops;
- A regular pattern of medium to large fields enclosed by hawthorn hedgerows, and ditches in low-lying areas, dominates the landscape;
- Extraction of sand and gravel deposits continues within the Trent flood plain and the area to the west of Lincoln. Many former sites of extraction have been flooded, introducing new waterbodies and new wetland habitats to the landscape;
- A predominantly rural and sparsely settled area with small villages and dispersed farms linked by quiet lanes, contrasting with the busy market towns of Newark and Grantham, the cities of Nottingham and Lincoln, the major roads connecting them and the cross-country dual carriageways of the A1 and A46.

### **Regional**

6.18. The East Midlands Landscape Character Assessment identifies 8 defined landscape character areas that make Central Lincolnshire distinctive. These are Limestone Scarps and Dipslopes, Wooded Vales, Unwooded Vales, Floodplain Valleys, Planned and

Drained Fens and Carrlands, Fen and Marsh Margin Farmlands, Settled Fens and Marshes and Wolds Scarps, Ridges and Valleys.

## Local

6.19. The Lincolnshire Historic Landscape Characterisation Project has categorised the landscape of Lincolnshire with specific reference to its development over time. The project has identified 10 character areas within the county, and 3 to 5 complimentary character zones for each character area. Central Lincolnshire is covered by 6 of the 10 character areas.

6.20. The Lincolnshire Wolds Landscape Character Assessment (1993) identified and described the key features that make the area special and contribute to its overall 'sense of place'. These features are:

- A rolling upland landscape of strongly cohesive identity.
- A pronounced scarp edge to the west comprising rough pasture and scrub, affording fine panoramic views to the Central Lincolnshire Vale.
- A combination of elevated plateau and deep-sided valleys.
- Large rectilinear fields with wide hedgerows from the late enclosure.
- Archaeologically rich, with ancient trackways, deserted villages and burial mounds.
- Sparse settlements of small-nucleated villages, often in sheltered valleys and associated with modest country houses and small parklands. The diverse geology gives rise to a variety of building materials.
- Broad verges to some roads and tracks providing valuable flower-rich habitats.
- Occasional shelterbelts concentrated on steeper-sided valley and scarp slopes emphasising landform.
- Broader south-west valleys of the Rivers Lymn and Bain. Associated alder carr woodland and tree lined watercourses.

6.21. The Landscape Character Assessment for North Kesteven identified 4 broad landscape character types and 13 landscape character sub areas.

**Table 8: Landscape Character Types and Sub Areas North Kesteven**

<b>Landscape Character Type</b>	<b>Landscape Character Sub Area</b>
Trent and Witham Vales	Heath Sandlands Terrace Sandlands Till Vale Lincoln Fringe Witham and Brant Vales
Central Plateau	Upland Plateau Fringe Limestone Heaath Rauceby Hills Wilsford Heath Slea Valley Central Clays and Gravels

Lincoln Cliff	Lincoln Cliff
The Fens	Fenland

**Source:** North Kesteven Landscape Character Assessment

6.22. The Landscape Character Assessment for West Lindsey identified 4 broad landscape character types and 14 landscape character sub areas.

**Table 9: Landscape Character Types and Sub Areas West Lindsey**

Landscape Character Type	Landscape Character Sub Area
Trent Valley	Laughton Woods Trent Valley The Till Vale
Lincolnshire Cliff	The Cliff Limestone Dip Slope Lincoln Fringe
Lincolnshire Clay Vale	The Kelseys Heathland Belt Fenland Lincolnshire Limewoods
The Wolds	North West Wolds Escarpment Lincolnshire Wolds Wold's Estates

**Source:** West Lindsey Landscape Character Assessment

### ***Townscape Character***

6.23. The Lincoln Townscape Assessment has mapped all the areas in Lincoln in terms of their character. The project identified 108 different character areas across the city. Information on each character areas includes interactive maps of monuments, archaeological research areas, views and ecological areas; a written statement giving an overview and information on the historical development, urban form, condition, use, views into and out of the area and relationship to surrounding areas; people's views and memories and; maps and photos, including historic maps and maps of the urban characteristics.

6.24. The Lincoln Fringe Character Project is an extension of the Lincoln Townscape Assessment and describes the distinctive character of 30 places around the edges of the City of Lincoln. Each place or 'Character Area' is described according to its historical development and its current character.

### **Designated Heritage Assets**

**Table 10: Designated Heritage Assets in Central Lincolnshire 2013**

Designation	Number of Sites in Central Lincolnshire	Number at Risk
Scheduled Monuments	192	21

Listed Buildings Total	2,363	32
Grade I	154	
Grade II*	164	
Grade II	1,763*	111*
Registered Historic Parks and Gardens	12	1
Conservation Areas	72	10

**Source:** The National Heritage List for England and Heritage at Risk Register (English Heritage) and Heritage Lincolnshire

\*Total number surveyed and assessed as at risk by Heritage Lincolnshire.

### Scheduled Monuments

6.25. Scheduled Monuments are designated under the Ancient Monuments and Archaeological Areas Act 1979 by the Secretary of State for their national importance. For a monument to be scheduled, it must be nationally important by reason of its historic, architectural, artistic, traditional or archaeological interest. Central Lincolnshire has 192 Scheduled Monuments, 21 of which are at risk.

### Listed Buildings

6.26. Listed buildings are those that hold special historic or architectural interest and are designated under the Planning (Listed Buildings and Conservation Areas) Act 1990. There are over 2,000 listed buildings in Central Lincolnshire, the majority are Grade II. There are currently 32 listed buildings Grade I and II\* at risk and 111 Grade II buildings at risk.

### Registered Historic Parks and Gardens

6.27. Registered Parks and Gardens are designated by English Heritage, who is responsible for compiling a register of Parks and Gardens of special historic interest in England. To be included on the register, a site must hold a level of importance defined as 'special historic interest' in a national context. Central Lincolnshire has 12 Registered Historic Parks and Gardens, including Grade II\* Doddington Hall. Brocklesby Park in West Lindsey is currently on the Heritage at Risk register.

### Conservation Areas

6.28. Conservation Areas are areas of special architectural or historic interest, whose character or appearance is considered to be desirable to preserve or enhance. They are designated under the Planning (Listed Buildings and Conservation Areas) Act 1990 by the Secretary of State. There are 72 Conservation Areas in Central Lincolnshire. Of these, 12 have up to date (less than 5 years old) Conservation Area Appraisals and Management Plans. In Lincoln, there are 11 Conservation areas covering a total area of 226.91ha, 6.36% of the total area of the city. Four Conservation Area Appraisals have been prepared but require updating.

### Non Designated Assets

6.29. Non designated assets make up an important and valued part of the historic environment in Central Lincolnshire. One of the principal sources of information on non

designated assets is the Historic Environment Record maintained by Lincolnshire County Council. For Lincoln, the Lincoln Heritage Database also offers a comprehensive record of all known archaeological excavations and discoveries in the city. Additionally, each local authority maintains a list of buildings and structures of local importance.

### **Are there any evidence gaps?**

- Some Conservation Area Appraisals in Central Lincolnshire are becoming out dated.
- Central Lincolnshire does not have a heritage strategy.

### **What will be the likely future situation without the Local Plan?**

- The NPPF ensures nationally protected landscapes are given significant weight in the planning process. The Local Plan will be important in ensuring that locally valued landscapes are taken into account and the least sensitive landscapes are promoted for development.
- Heritage assets that have not been formally designated will have limited protection against inappropriate development without the Local Plan.

### **What are the key issues that should be a focus for the appraisal?**

- The need to conserve and enhance the distinctive character of the Central Lincolnshire landscape and townscape, including nationally designated landscapes such as the Lincolnshire Wolds AONB.
- Opportunities to retain and reuse historic buildings where appropriate and reduce the number at risk.
- Heritage assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance. Central Lincolnshire has nationally significant assets including Lincoln Cathedral and Castle and roman monuments.
- Need to protect Central Lincolnshire's landscape and townscape from uncontrolled and unsympathetic development.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to landscape, townscape and the historic environment:

- To protect and enhance the rich diversity of the character and appearance of Central Lincolnshire's landscape and townscape, maintaining and strengthening local distinctiveness and sense of place.
- To protect and enhance the significance of the buildings, sites and features of archaeological, historic or architectural and artistic interest and their settings, and ensure new buildings, spaces and places are designed to a high quality.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **7. WATER**

### **What is the policy context?**

**International and National Legislation includes:**

- 7.1. **European Union (2000) Water Framework Directive 2000/60/EC** The EU Water Framework Directive (WFD) came into force in 2000 and was transposed into UK legislation in 2003. The overarching target of the WFD is for all inland and coastal waters to meet 'good ecological status' (or good ecological potential in the case of heavily modified water bodies) at the latest by 2027. In addition to this, no water bodies should deteriorate in status.
- 7.2. **The Environmental Permitting (England and Wales) Regulations 2010 as amended** Provides a consolidated framework for environmental permits and exemptions for industrial activities, mobile plant, waste operations, mining waste operations, water discharge activities, groundwater activities and radioactive substances activities. It also sets out the powers, functions and duties of the regulators.
- 7.3. **Water for Life, White Paper, (December 2011)** Sets out the Government's vision for securing sustainable and resilient water supplies up to 2050. It outlines plans to consult on abstraction reform proposals in 2013, with a view to introducing subsequent legislation and implementing a new abstraction regime fully by the mid-late 2020s. It also highlights the value of the catchment approach to addressing water quality issues, outlines a package of deregulatory reforms to introduce more competition in the water industry.
- 7.4. **Catchment Based Approach: Improving the Quality of the Water Environment (Defra, May 2013)** Defra has published a policy framework to encourage the wider adoption of an integrated catchment-based approach to improving the quality of the water environment. The key objectives are:
- To deliver positive and sustained outcomes for the water environment by promoting a better understanding of the environment at a local level; and
  - To encourage local collaboration and more transparent decision-making when both planning and delivering activities to improve the water environment.

### **National Planning Policy Framework and Practice Guidance**

- 7.5. The NPPF and NPPG state that the planning system should contribute to and enhance the natural and local environment. Plan-making may need to consider:
- How to help protect and enhance local surface water and groundwater in ways that allow new development to proceed and avoids costly assessment at the planning application stage,
  - The type or location of new development where an assessment of the potential impacts on water bodies may be required,
  - Expectations relating to sustainable drainage systems,

- The sufficiency and capacity of wastewater infrastructure and the circumstances where wastewater from new development would not be expected to drain to a public sewer,
- Identifying suitable sites for new or enhanced water and waste water infrastructure,
- Considering whether new development is appropriate near to sites used (or proposed) for water and wastewater infrastructure,
- Cross boundary water quality and supply issues under the duty to co-operate.

### **Water Resources Management Plan, Anglian Water, (February 2010)**

7.6. The Plan is structured around 12 Water Resources Zones: South Humberside; Lincoln; Lincolnshire Coastal; Lincolnshire Fens; Fenland; North Norfolk Coast; Norfolk Rural; Norwich and The Broads; Cambridgeshire and West Suffolk; East Suffolk and Essex; Ruthamford; Hartlepool. Each WRZ is described in terms of: the historical development of indigenous water resources:

- The supply-demand balance against both current and forecast demands;
- The feasible water management options identified;
- The preferred list of water management options selected.

### **River Basin Management Plans**

7.7. River Basin Management Plans implement the Water Framework Directive. These plans contain the main issues for the water environment and actions needed to tackle them.

7.8. The River Basin Management Plans that the Central Lincolnshire Local Authorities need to take account of are the Anglian River Basin Management Plan and the Humber River Basin Management Plan, both published in 2009. The plans will be revised and updated in 2015.

7.9. The Anglian Plan sets out the following targets by 2015:

- 16 per cent of surface water(rivers, lakes, estuaries and coastal waters) in this river basin district are going to improve for at least one biological, chemical or physical element,
- 19 per cent of surface waters will be at good ecological status/potential and 45 per cent of groundwater bodies will be at good status.
- At least 30 per cent of assessed surface waters will be at good or better biological status by 2015.

7.10. The Humber Plan sets out the following targets by 2015:

- 14 per cent of surface waters (rivers, lakes, estuaries and coastal waters) in this river basin district are going to improve for at least one biological, chemical or physical element;

- 19 per cent of surface waters will be at good better ecological status/potential and 32 per cent of groundwater bodies will be at good status by 2015;
- At least 29 per cent of assessed surface waters will be at good or better biological status by 2015.

7.11. **Catchment Abstraction Management (CAM) Strategies** A CAM is a strategy which sets out how the Environment Agency will manage water abstraction in a particular area. It describes where water is available for abstraction and the implications water resource availability has for new and existing water abstraction licences.

7.12. Central Lincolnshire is covered by two CAMs; the Witham CAM and the Grimsby, Ancholme and Louth CAM.

7.13. **Water Cycle Studies** Two Water Cycle Studies (WCS) have been undertaken for the Central Lincolnshire Housing Market Area; one covers Gainsborough and surrounding villages in West Lindsey (the Gainsborough WCS) and a 'Central Lincolnshire WCS'; which covers the rest of West Lindsey, the City of Lincoln and North Kesteven. The studies seek to provide an assessment of the current availability of water infrastructure and identify where and when improvements are required to facilitate levels of planned growth.

### **What is the current baseline?**

7.14. Central Lincolnshire's water resources are a valuable asset, supporting wildlife, recreation and tourism as well as providing water for households, businesses and agriculture.

7.15. The main rivers which flow through Central Lincolnshire are the Rivers Witham, Ancholme, Trent and Slea. Many existing homes, businesses and related infrastructure are located in close proximity to these watercourses and are at risk from fluvial flooding.

7.16. The Environment Agency's (EA) assessment of relative water stress for England and Wales indicates Central Lincolnshire lies within a region where water resources are under serious stress. The Witham CAM classifies the region as having limited water available. The use of water storage reservoirs remains an option in order to secure water resources. The Environment Agency's Strategic Water Transfer Scheme is an important piece of infrastructure which serves the area and beyond. Parts of West Lindsey outside the LPA fall within the Grimsby, Ancholme and Louth CAM which classifies the River Ancholme as having water availability. The EA also produce River Basin Management Plans, which focus on the protection, improvement and sustainable use of the water environment. Central Lincolnshire is covered by the Anglian and the Humber River Basin Management Plans.

7.17. A number of pressures are impacting on the quality of the water environment in these areas. They include water abstraction, physical modification, diffuse pollution from agriculture and urban and transport pollution. It is likely that climate change could increase the risk from some of these pressures, particularly abstraction.



### Groundwater Protection Zones

7.18. Groundwater Source Protection Zones (SPZs) are areas of groundwater where there is a particular sensitivity to pollution risks due to the closeness of a drinking water source and groundwater flows. They are used to protect abstractions used for public water supply and other users such as mineral and bottled water plants, breweries, and food production plants. Generally the closer the activity is to a groundwater source, then the greater the risk.

7.19. Source Protection Zones are present along the outcrop of the Lincolnshire Limestone. These Source Protection Zones are an important feature within the area covered by the Central Lincolnshire Local Plan including West Lindsey, North Kesteven and City of Lincoln. Development in these Source Protection Zones will be expected to comply with the Environment Agency's guidance document 'Groundwater Protection: Principles and Practice (GP3)

### Surface Water and Groundwater Water Classification

7.20. The current classification of surface water and groundwater in and around the main settlements in Central Lincolnshire is shown in Tables 11a and 11b below.

**Table 11a: River Basin Management Plans - Rivers**

Settlement	Waterbody Name	Ecological Quality	Chemical Quality
Lincoln	Lower Till	Moderate Potential	Assessment not required
	Lower Witham	Moderate Potential	Good
	Fosdyke Canal, River Till Section	Moderate Potential	Assessment not required
Sleaford	Slea New	Moderate Potential	Assessment not required
Gainsborough	Trent from Carlton on Trent to Laughton Drain	Poor Potential	Good
	Till	Moderate Potential	Assessment not required

**Source:** The Environment Agency

**Table 11b: River Basin Management Plans - Groundwater**

<b>Settlement</b>	<b>Waterbody Name</b>	<b>Quantitative Quality</b>	<b>Chemical Quality</b>
<b>Lincoln</b>	Witham Limestone Unit A	Good	Good
	Witham Lias U	Good	Good
<b>Sleaford</b>	Witham Limestone Unit A	Good	Good
	Bilsworth Limestone Rutland formation	Good	Good
	Cornbrash	Good	Good
<b>Gainsborough</b>	Lower Trent Erewash Secondary Combined	Good	Poor
	Witham Lias U	Good	Good

**Source:** The Environment Agency

### **Nitrate Vulnerable Zones**

7.21. Land that drains into waters polluted by nitrates is designated as Nitrate Vulnerable Zones (NVZs). Farmers with land in NVZs must follow mandatory rules to tackle nitrate loss from agriculture. According to Environment Agency mapping, the whole of Central Lincolnshire lies in a Surface Water NVZ Area. A large swathe of land running north to south through Lincoln and Sleaford is also classified as a Groundwater NVZ Area.

### **Are there any evidence gaps?**

- Water consumption data

### **What will be the likely future situation without the Local Plan?**

- Water resources are stressed across Central Lincolnshire. The Housing Standards Review has recommended changes to the Building Regulations to strengthen water efficiency standards but this may not be enough in areas of water stress, who will have the option to implement a higher standard through the Local Plan.
- Without the Local Plan, water quality would be at risk.

### **What are the key issues that should be a focus for the appraisal?**

- Need to protect and improve water quality
- Improve water efficiency
- Location and capacity of water infrastructure

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to water:

- To protect and enhance water resources and their quality in Central Lincolnshire.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **8. POLLUTION**

### **What is the policy context?**

**International and National Legislation includes:**

- 8.1. **The EU Directives Ambient Air Quality Directive (2008/50/EC) and Directive 2004/107/EC**, set limits for concentrations of pollutants in outdoor air. The Air Quality (Standards) Regulations 2010 transpose into English law the requirements of Directives 2008/50/EC and 2004/107/EC on ambient air quality.
- 8.2. **Part IV of The Environment Act 1995** sets provisions for protecting air quality in the UK and for local air quality management, requiring Local Authorities to carry out annual reviews of air quality in their area.
- 8.3. **The Air Quality (England) Regulations 2000** set national objectives for local authorities in England.
- 8.4. **Public Health England's Public Health Outcomes Framework** sets out a vision for public health, desired outcomes and indicators that will enable a better understanding of how well public health is being improved and protected. The Outcomes Framework recognises the significant impact that poor air quality has on health and in doing so includes indicator '3.01 – Fraction of mortality attributable to particulate air pollution' as one of its Health Protection indicators.
- 8.5. **The Environmental Noise Directive 2002/49/EC** concerns noise from road, rail and air traffic and from industry. It focuses on the impact of such noise on individuals, complementing existing EU legislation which sets standards for noise emissions from specific sources. The Directive requires:
  - the determination of exposure to environmental noise, through noise mapping;
  - provision of information on environmental noise and its effects on the public;
  - adoption of action plans, based upon noise mapping results, which should be designed to manage noise issues and effects, including noise reduction if necessary;
  - preservation by the member states of environmental noise quality where it is good.
- 8.6. Directive 2002/49/EC has been transposed into UK legislation by the Environmental Noise (England) Regulations 2006, as amended.
- 8.7. **Noise Policy Statement for England, March 2010** sets out the Government's long term vision for noise policy to "Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development". The vision is supported by the following aims:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life".

8.8. **Natural Environment White Paper: The Natural Choice, June 2011** reiterated the Government's commitment to deliver the Noise Policy Statement for England. The paper highlighted that for many people, a sense of tranquility contributed to their enjoyment of the natural environment. It also commits the Government to identify and protect urban quiet areas. These are existing areas of relative quiet that people living in cities can use for relaxation and contemplation.

8.9. **National Planning Policy Framework and Practice Guidance** The NPPF and NPPG makes clear that it is important Local Plans take into account air quality management areas and other areas where there could be specific requirements or limitations on new development because of air quality. The Local Plan may need to consider:

- the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments;
- the impact of point sources of air pollution (pollution that originates from one place); and,
- ways in which new development would be appropriate in locations where air quality is or likely to be a concern and not give rise to unacceptable risks from pollution. This could be through, for example, identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable.

### **What is the current baseline?**

8.10. Air quality impacts on both human health, quality of life and the natural environment. Poor air quality can also adversely affect our ecosystems and built heritage.

8.11. Air quality across Central Lincolnshire is generally considered to be good. However vehicle emissions are a primary source of air pollutants at some locations, particularly in areas that suffer from congestion as well as within settlements situated along the area's strategic road network.

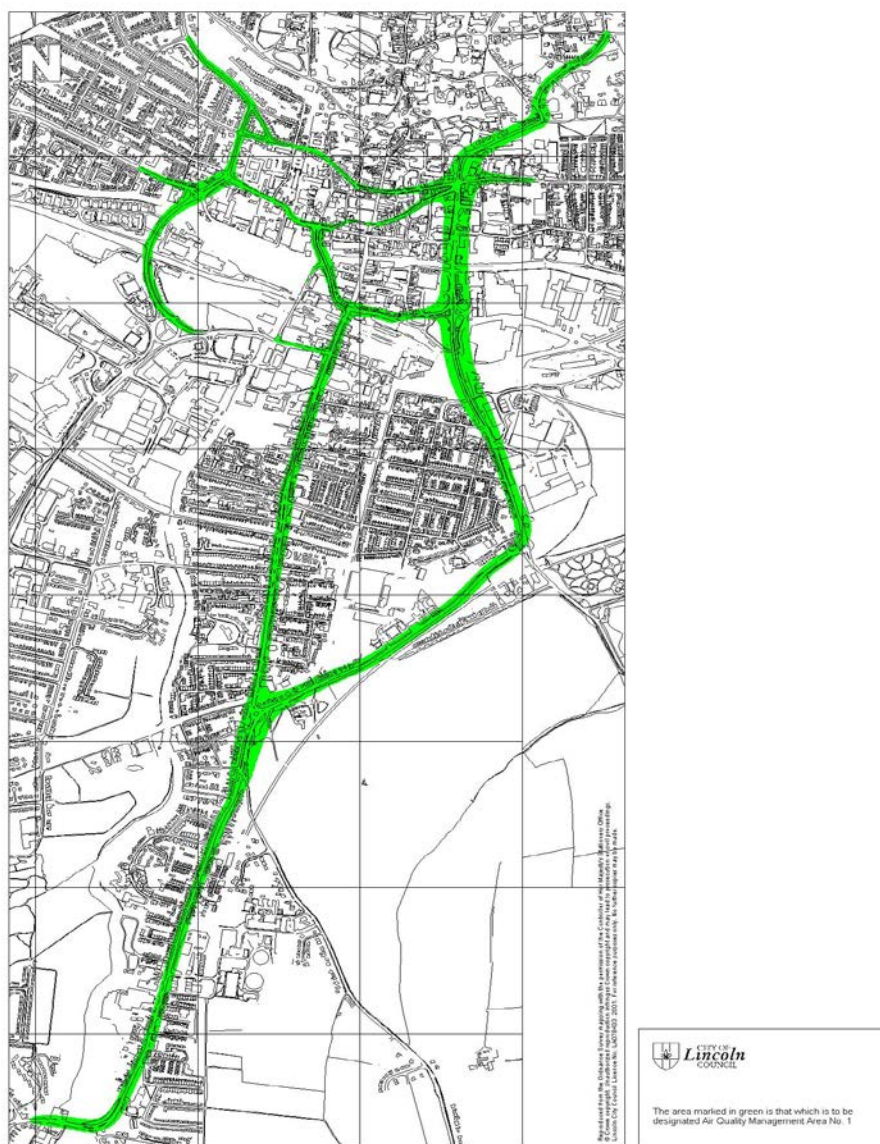
8.12. There are 2 designated Air Quality Management Areas within Central Lincolnshire, both of which are in Lincoln (Figure and Figure below). They have been designated for levels of nitrogen dioxide and particulates that exceed national air quality objectives. The principal source of air pollution in Lincoln is road traffic coupled with the high proportion of heavy goods vehicle traffic in the city centre.

8.13. An Air Quality Action Plan has been drawn up for the AQMAs in Lincoln, which outlines a number of potential measures that may be taken to improve air quality. The Action Plan

has been incorporated in the current Local Transport Plan through the Lincolnshire Strategic Air Quality Partnership.

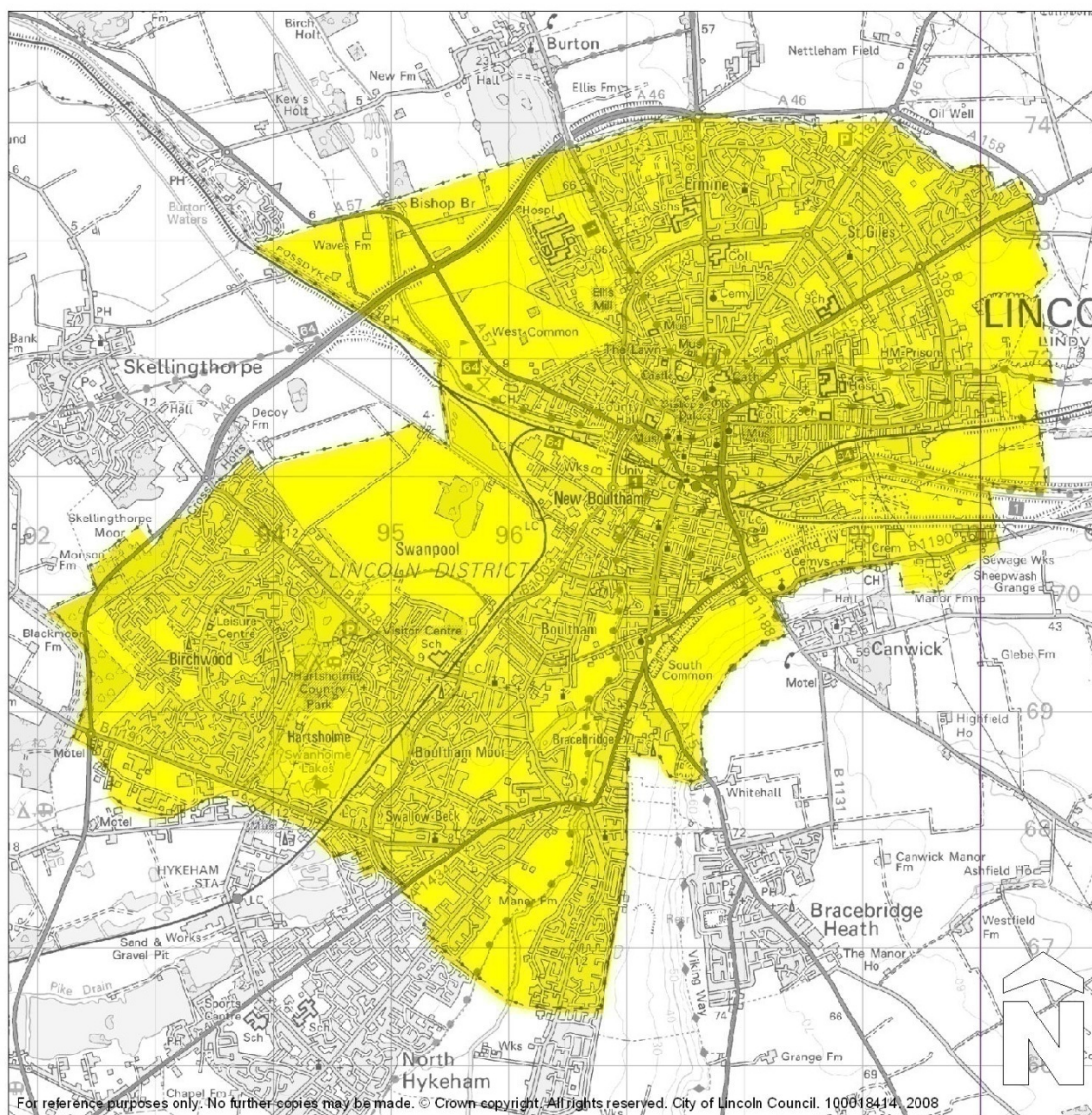
- 8.14. The Public Health Outcomes Framework indicator 3.01 – Fraction of mortality attributable to particulate air pollution estimates Lincoln, North Kesteven and West Lindsey have attributable mortality rates of 5.2%, 5.0% and 4.9%. The Central Lincolnshire area is above the county average of 4.9%, but still below the national average for England of 5.4%.

**Figure 4: Nitrogen Dioxide Air Quality Management Area in Lincoln**





**Figure 5: Particulates Air Quality Management Area in Lincoln**



## Noise

8.15. Environmental noise mainly consists of noise from transport sources such as road, rail and aviation.

8.16. During 2011/12 there were a total of 1,494 noise complaints within the Central Lincolnshire area. As can be expected, there was a concentration of noise complaints in the Lincoln, Central Lincolnshire's largest urban settlement, where the rate was above the regional and national average.

**Table 12: Number of complaints per 1,000 population**

<b>Geographical Area</b>	<b>Rate per 1,000 population</b>
Lincoln	7.6
North Kesteven	4.2
West Lindsey	3.7
East Midlands	5.5
England	7.5

**Source:** CIEH

8.17. Defra, in line with its duties under the Environmental Noise (England) Regulations 2006 as the 'competent authority', has developed a strategic noise map identifying 'important areas' where noise levels are likely to be of particular concern. Important areas are those areas where the population is likely to be exposed to elevated levels of noise due to major transport or industrial sources. A number of important areas have been identified in Central Lincolnshire (e.g. six road and two rail related important areas have been identified within Lincoln, and further areas have been identified within both West Lindsey and North Kesteven).

### **Are there any evidence gaps?**

#### **What will be the likely future situation without the Local Plan?**

- Air quality and tranquillity may get worse as a result of unplanned development if they come forward in the least sustainable locations.
- Objectives of AQMAs may not be met if development is not located in the most sustainable locations.

#### **What are the key issues that should be a focus for the appraisal?**

- Need to reduce greenhouse gas emissions.
- Ensure housing and employment growth doesn't worsen any local air quality issues, particularly in AQMAs in Lincoln.
- Address reliance on the private car and encourage sustainable modes of travel, including walking and cycling.

#### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to pollution:

- To reduce pollution (air, noise and light) and improve air quality

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.



## **9. LAND USE AND SOILS**

### **What is the policy context?**

**International and National Legislation includes:**

- 9.1. **Safeguarding Our Soils: A Strategy for England (DEFRA, 2009)** Sets out a vision that by 2030, all England's soils will be managed sustainably and degradation threats managed successfully. This will improve the quality of England's soils and safeguard their ability to provide essential services for future generations.
- 9.2. The Strategy highlights the areas for priority including:
- Better protection for agricultural soils.
  - Protecting and enhancing stores of soil carbon.
  - Building the resilience of soils to a changing climate.
  - Preventing soil pollution.
  - Effective soil protection during construction and development.
  - Dealing with our legacy of contaminated land

### **National Planning Policy Framework and Practice Guidance**

- 9.3. The NPPF states that the planning system should protect and enhance values soils and prevent the adverse effects of unacceptable levels of pollution. It also expects Local Planning Authorities to take account of the benefits of the best and most versatile agricultural land; the land which is most flexible, productive and efficient in response to inputs and which can best deliver food and non food crops for future generations.
- 9.4. Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value.
- 9.5. Local Plans may need to consider land contamination issues, including:
- Consider a strategic, phased approach to dealing with potential contamination if this is an issue over a wide area, and in doing so, recognise that dealing with land contamination can help contribute to achieving the objectives of EU directives such as the Water Framework Directive,
  - Allocate land which is known to be affected by contamination only for appropriate development,
  - Have regard to the possible impact of land contamination on neighbouring areas.
  - Whether the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;
  - Whether adequate site investigation information, prepared by a competent person, has been presented.

## **What is the current baseline?**

### **Soils**

9.6. According to the National Soil Map of England and Wales<sup>21</sup>, the main broad soil types within Central Lincolnshire are:

- Shallow very acid peaty soils over rock;
- Freely draining acid loamy soils over rock;
- Slowly permeable wet very acid upland soils with a peaty surface;
- Freely draining floodplain soils;
- Loamy and clayey floodplain soils with naturally high groundwater.

9.7. The most versatile (Grade 1) agricultural land within Central Lincolnshire occurs in two small areas to the northwest of Gainsborough and the southeast of Sleaford. There are large swathes of Grade 2 agricultural land to the North of Lincoln either side of the A15 and to the South West between Lincoln and Sleaford, broadly following the Limestone Scarps and Dipslopes<sup>22</sup>. The remainder of Central Lincolnshire is largely classified as Grade 3 agricultural land.

9.8. Some of the most significant impacts on soil properties occur as a result of construction activities, including soil contamination, reduction of soil quality (e.g. by mixing topsoil with subsoil) and over compacting soil through use of heavy machinery.

### **Geology and Minerals**

9.9. The main minerals produced in Lincolnshire are sand and gravel and limestone and chalk. Oil and gas are also produced. Sand and gravel is the most important of the County's aggregate minerals, accounting for nearly 80% of all aggregates produced in 2008<sup>23</sup>. It is mainly used in the construction industry. One of the main concentrations of current workings is situated in the Trent valley south west of Lincoln. Limestone is mainly worked for aggregates but also for agricultural lime. High quality limestone is quarried in Lincoln for the restoration of Lincoln Cathedral. Chalk is currently extracted from 5 quarries within or adjacent the Lincolnshire Wolds AONB for aggregates and industrial purposes. Chalk is also used for vernacular buildings.

9.10. There are 6 Regionally Important Geological and Geomorphological Sites (RIGs) designated within Central Lincolnshire. There are currently 14 Local Geological Sites (LGS) designated.

### **Land Affected by Contamination**

9.11. Previous industrial development has left a legacy of contamination in the UK. Contaminated Land legislation was introduced in April 2000 as part of the Environmental Protection Act 1990 "to ensure contaminated land issues are addressed for the safety and well being of human health and the environment".

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<sup>21</sup> Accessed online at [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk)

<sup>22</sup> Agricultural Land Classification 2009 accessed online at [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk)

<sup>23</sup> Lincolnshire County Council 2010 Preferred Minerals and Waste Strategies

- 9.12. In terms of Central Lincolnshire, the greatest legacy of contaminated land is likely to be found in Lincoln, as although they may have been pockets of industrial activity in West Lindsey and North Kesteven, these districts are largely characterised by agricultural activity. Lincoln has an ancient past and was an important military town during Roman Times. The city developed later with the cloth and wool trade, progressing through to the Agricultural Revolution with the development of maltings and breweries. The railways developed in the mid 19<sup>th</sup> century with heavy engineering and industry growing alongside e.g. foundries, steelworks, tanneries, timber treatment yards and gas works<sup>24</sup>.
- 9.13. Where development is proposed on a site which is known or has the potential to be affected by contamination, a preliminary risk assessment should be undertaken as a minimum and any subsequent additional information should be carried out in accordance with the Environment Agency's Contaminated Land Report 11 (CLR11) 'Model Procedures for the Management of Land Contamination'.
- 9.14. During 2011/12, Central Lincolnshire developed 48% of new homes on previously developed land.<sup>25</sup>

### **Are there any evidence gaps?**

- Data on Agricultural Land Grade 3a and 3b.

### **What will be the likely future situation without the Local Plan?**

- Without a Local Plan promoting development in the most sustainable locations, there is a risk brownfield land will not be prioritised.
- Allocations in the Local Plan could lead to the remediation of contaminated land.
- Pollution risks posed to human health and the wider environment from land affected by contamination is not managed.

### **What are the key issues that should be a focus for the appraisal?**

- Prioritising the redevelopment of previously developed land would reduce pressure on Greenfield land.
- Legacy of contaminated land, particularly in Lincoln. Contamination issues may arise through reusing previously developed land and may require remediation before new development can take place.
- Parts of Central Lincolnshire are covered by high quality agricultural land.
- Parts of Central Lincolnshire are underlain by Principal Aquifers that provide water for public water supply, agricultural and industrial supply.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to land use and soils:

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<sup>24</sup> City of Lincoln Council 2008 Contaminated Land Strategy

<sup>25</sup> Central Lincolnshire Annual Monitoring Report 2011/12, March 2013

- To protect and enhance soil and land resources and quality in Central Lincolnshire

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **10. WASTE**

### **What is the policy context?**

**International and National Legislation includes:**

10.1. **EU Landfill Directive (1999/31/EC)** The Landfill Directive aims to reduce reliance on landfill as a disposal option. It seeks to decrease the environmental impacts of landfills and reduce the risk to human health while imposing a consistent minimum standard for landfills across the EU. Sets out a target to reduce biodegradable municipal waste landfilled to 75% of that produced in 1995 by 2010; to 50% by 2013, and to 35% by 2020.

### **EU Waste Framework Directive 2008/98/EC**

10.2. Provides the legislative framework for the collection, transport, recovery and disposal of waste, and includes a common definition of waste – “any substance or object which the holder discards or intends or is required to discard”. The directive requires all member states to take the necessary measures to ensure waste is recovered or disposed of without endangering human health or causing harm to the environment and includes permitting, registration and inspection requirements. Sets out the following targets by 2020:

- At least 50% by weight of waste from households is prepared for re-use or recycled.
- At least 70% by weight of construction and demolition waste is subjected to material recovery.

10.3. The Framework sets out 5 steps for dealing with waste, ranked according to environmental impact - the ‘waste hierarchy’. Prevention, which offers the best outcomes for the environment, is at the top of the priority order, followed by preparing for re-use, recycling, other recovery and disposal, in descending order of environmental preference. The waste hierarchy has been transposed into UK law through the **Waste (England and Wales) Regulations 2011**.

### **10.4. The Waste Management Plan for England, Defra, Consultation Version, July 2013**

There has been a major decrease in waste being disposed of to landfill and an increase in recycling in England. Recycling and composting of household waste has increased to 43%; waste generated by businesses has declined by 29% and business recycling rates are 52%. Waste going to landfill has nearly halved since 2000. The construction, demolition and excavation sector is the largest contributing sector to the total waste generation. Plan suggests England is on track to meet the targets set out in the EU Waste Framework.

10.5. The key aim of the waste management plan for England is to set out our work towards a zero waste economy as part of the transition to a sustainable economy. In particular, this means using the —waste hierarchy (waste prevention, re-use, recycling, recovery and finally disposal as a last option) as a guide to sustainable waste management.

10.6. Waste planning authorities remain responsible for developing local authority waste plans as part of their wider strategic planning responsibilities, in support of the Waste Management Plan for England.

10.7. **Lincolnshire Minerals and Waste Local Plan** Lincolnshire County Council is currently preparing the Minerals and Waste Local Plan. The Council published a Draft Core Strategy and Development Management Policies document for consultation between 1 November and 13 December 2013. A Site Locations Plan will also be prepared.

### **What is the current baseline?**

10.8. Waste comes from many different sources, including homes, businesses, farms and construction and demolition activities. The construction of new housing and employment through the Local Plan has the potential to generate construction waste and it is therefore important that Local Plan policy seeks to minimise the amount of waste arising from new development and to use recycled materials, particularly aggregates, wherever possible.

10.9. There are opportunities for waste to have a positive impact as it can be diverted from landfill and used to generate low carbon renewable energy and fuel. An energy from waste plant is currently under construction in North Hykeham. It is designed to treat 150,000 tonnes of waste a year, generate 11MW of electricity (enough to power 15,000 homes and 10MW of heat. Past trends indicate that the amount of household waste collected per person continues to fall across all three Central Lincolnshire Local Authorities. Recycling rates have increased in general.

**Table 13: % household waste recycled**

	2012/13	2011/12	2010/11	2009/10	2008/9	2007/8
<b>Lincoln</b>	44	44.5	46	43.96	44.17	42.05
<b>North Kesteven</b>	51	52.6	53	53.82	55.69	55.94
<b>West Lindsey</b>	54	55.2	56	49.10	41.84	36.97
<b>County</b>	51	52.8	53	51.39	-	-

Source: DEFRA

**Table 14: Quantity (kg) of household waste collected per person**

	2012/13	2011/12	2010/11	2009/10	2008/9	2007/8
<b>Lincoln</b>	327.06	411.88	426	419.89	442	433
<b>North Kesteven</b>	426.14	426.67	443	433.67	475	475
<b>West Lindsey</b>	378.98	425.45	443	424.7	423	427
<b>County</b>	467	477	492	486	-	-

Source: DEFRA

### **Are there any evidence gaps?**

#### **What will be the likely future situation without the Local Plan?**

- The main influence of the Plan will be through the design stage of future development whereby there is potential to seek to reduce the amount of construction and demolition waste arising. The Local Plan is unlikely to have a significant impact on household recycling rates.

#### **What are the key issues that should be a focus for the appraisal?**

- Reducing the amount of construction and demolition waste arising from new development.
- Increasing recycling rates across Central Lincolnshire.

#### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to waste:

- To minimise the amount of waste generated across all sectors and increase the re-use, recycling and recovery rates of waste materials.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **11. CLIMATE CHANGE (ADAPTATION AND MITIGATION)**

### **What is the policy context?**

**International and National Legislation includes:**

- 11.1. Renewable Energy Directive (2009/28/EC)** Encourages energy efficiency, energy consumption from renewable sources and the improvement of energy supply. Places a requirement on UK to source 15% of energy needs from renewable sources by 2020. Member states are required to establish national action plans which set out the share of energy from renewable sources consumed in transport, as well as production of electricity and heating for 2020.
- 11.2. EU Floods Directive (2007/60/EC)** The Directive aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. It requires Member States to assess whether all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.
- 11.3. Climate Change Act 2008** The main objective of the Act is to improve carbon management, helping the transition towards a low-carbon economy in the UK through the setting of carbon emission targets. To demonstrate UK leadership internationally, signalling that we are committed to taking our share of responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen in December 2009. Sets out a legally binding target of at least an 80% cut in greenhouse gas emissions by 2050, to be achieved through action in the UK and abroad. Also, a reduction in emissions of at least 34% by 2020. Both these targets are against a 1990 baseline. The Act also created a framework for climate change adaptation.
- 11.4. The UK Low Carbon Transition Plan: National Strategy for Climate & Energy (2009)** The key objectives relevant to the Local Plan are to cut carbon emissions in all sectors, including housing, transport, industry and workplaces and to increase the amount of electricity produced from low carbon technologies. Provides the following targets:
- Cut emissions from power and heavy industry by 22% on 2008 levels, by 2020
  - Renewable energy to increase to 30% by 2020
  - Cut emissions from homes by 29% on 2008 levels, by 2020
  - Cut emissions from workplaces by 13% on 2008 levels, by 2020
  - Cut emissions from transport by 14% on 2008 levels, by 2020
  - Cut emissions through farming and waste by 6% on 2008 levels by 2020
- 11.5. The National Adaptation Programme – Making the Country Resilient to a Changing Climate (Defra, 2013)** The report sets out visions for the following sectors:
- Built Environment – “buildings and places and the people who live and work in them are resilient to a changing climate and extreme weather and organisations in the built environment sector have an increased capacity to address the risks and take the opportunities from climate change”.



- Infrastructure – “an infrastructure network that is resilient to today’s natural hazards and prepared for the future changing climate”.
- Healthy and resilient communities – “a health service, a public health and social care system which are resilient and adapted to a changing climate. Communities and individuals, including the most vulnerable, are better prepared to cope with severe weather events and other impacts of climate change. Emergency services and local resilience capability take account of and are resilient to, a changing climate”.
- Agriculture and Forestry – “profitable and productive agriculture and forestry sectors that take the opportunities from climate change, are resilient to its threats and contribute to the resilience of the natural environment by helping maintain ecosystem services and protect and enhance biodiversity”.
- Natural Environment – “the natural environment, with diverse and healthy ecosystems, is resilient to climate change, able to accommodate change and valued for the adaptation services it provides”.
- Business – “UK businesses are resilient to extreme weather and prepared for future risks and opportunities from climate change”.
- Local Government – “Local government plays a central in leading and supporting local places to become more resilient to a range of future risk and to be prepared for the opportunities from a changing climate”.

**11.6. National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England – Understanding the risks, empowering communities, building resilience (2011)** This strategy sets out a statutory framework that will help communities, the public sector and other organisations to work together to manage flood and coastal erosion risk. It will support local decision-making and engagement in FCERM, making sure that risks are managed in a coordinated way across catchments and along each stretch of coast. This includes the development of local flood risk management strategies by lead local flood authorities, as well as the EA’s strategic overview of all sources of flooding and coastal erosion.

**11.7. National Planning Policy Framework and Practice Guidance** Addressing climate change is one of the core land use planning principles set out in the NPPF. Local Authorities are expected to adopt proactive strategies to mitigate and adapt to climate change in line with the objectives of the Climate Change Act 2008. “To support the move to a low carbon future, local planning authorities should:

- plan for new development in locations and ways which reduce greenhouse gas emissions;
- actively support energy efficiency improvements to existing buildings; and
- when setting any local requirement for a building’s sustainability, do so in a way consistent with the Government’s zero carbon buildings policy and adopt nationally described standards”.
- In relation to flood risk, inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should apply a sequential, risk based approach to the

location of development to avoid where possible flood risk to people and property and manage any residual risk taking into account the impacts of climate change.

**11.8. River Witham Catchment Flood Management Plan (CFMP) and emerging actions, Environment Agency (2009) (currently being updated and to be replaced by Flood Management Plans)** The role of CFMPs is to establish flood risk management policies which will deliver sustainable flood risk management for the long term. The CFMP considers all types of inland flooding, from rivers, groundwater, surface water and tidal flooding, but not flooding directly from the sea. Currently the main sources of flood risk for people, property, infrastructure and the land are:

- River flooding from the rivers Witham, Trent and their tributaries. This includes both overtopping from rivers and any failures of raised embankments which protect development. These types of flooding are difficult to predict but could cause a severe risk to life, property and land;
- Surface water drainage and sewer flooding, which has occurred in parts of Lincoln and Gainsborough;
- Groundwater flooding which is a risk in the limestone chalk areas when there are high groundwater levels within the underlying rock and other low lying areas such as Sleaford and the surrounding area.

**11.9. Joint Lincolnshire Flood Risk and Drainage Management Strategy, 2012-2025** Lincolnshire County Council, as the Lead Local Flood Authority for the county, is required by the new legislation to work with other Risk Management Authorities to develop, maintain, apply and monitor a Local Flood Risk Management Strategy, which must be consistent with the Environment Agency's national Flood and Coastal Erosion Risk Management.

11.10. The Strategy sets out the following vision: "We will work with our communities to manage the likelihood and impact of flooding for the social, economic and environmental benefit of Lincolnshire. We will support local people and businesses to take part in managing the risks that affect them. Lincolnshire will continue to be a national exemplar for effective partnership working in flood risk and drainage management".

11.11. Key objectives include "The likelihood and impact of flooding from all sources will be reduced where possible from current levels by 2025", "Planning and development control across the county will take account of all forms of flood risk and sustainable drainage; development which could increase flood risk will be minimised, as will inappropriate development in areas of significant flood risk" and "Lincolnshire will have more information and better ways of assessing flood risk from all sources after 2013, which will guide sustainable development and improve the way that priorities for works, other measures and further investigation are decided".

### **Water Cycle Studies**

11.12. Two Water Cycle Studies (WCS) have been undertaken for the Central Lincolnshire Housing Market Area; one covers Gainsborough and surrounding villages in West

Lindsey (the Gainsborough WCS) and a 'Central Lincolnshire WCS'; which covers the rest of West Lindsey, the City of Lincoln and North Kesteven. The studies seek to provide an assessment of the current availability of water infrastructure and identify where and when improvements are required to facilitate levels of planned growth.

- 11.13. **Renewable and Low Carbon Energy Study for Central Lincolnshire, October 2011.** The Study found that there are considerable renewable and low carbon resource opportunities across Central Lincolnshire, with high carbon reduction opportunities linked to wind, biomass, Combined Heat and Power (CHP) and micro generation. These opportunities can help meet either the national targets, or local needs, or in some cases both. A target of 60% of electricity and 12% of heat from renewable energy by 2026 is considered deliverable in Central Lincolnshire.
- 11.14. **North Kesteven Strategic Flood Risk Assessment (2009)** A planning tool that identifies flooding-related constraints to development across North Kesteven, It includes: an assessment and mapping of flood risk over whole of NK in accordance with PPS25 Flood Zones, and also a detailed assessment of actual flood risk and flood hazard where flood risk is considered to be significant. The SFRA recommendations include: that within Sleaford ensure that development takes place in Flood Zone (FZ) 1, and where there is no available land in FZ 1, direct development to FZ 2. Also that within Lower Witham Fens discourage any development in the "Danger for All" flood hazard area.
- 11.15. **West Lindsey Strategic Flood Risk Assessment (2009)** The SFRA concluded the principal source of flood risk for most of West Lindsey is from the Environment Agency's Main Rivers. For Gainsborough and Bardney, use the flood hazard maps to inform the application of the sequential approach where development is required in flood zone 3 to steer development to the areas at lowest flood risk. For other areas use the Strategic Flood Risk Maps prepared for the District to inform the application of the sequential approach where development is required in flood zone 3 to steer development to the areas at lowest flood risk.
- 11.16. **Lincoln Policy Area Strategic Flood Risk Assessment (2010)** The SFRA concluded there to be a high potential risk of fluvial (river) flooding in the Lincoln Policy Area and a medium potential risk of pluvial (drainage) flooding. There is also a moderate risk of flooding from surface water. The areas to the Western side of the River Witham in Lincoln are at the greatest risk from flood defence failure.

## **What is the current baseline?**

### **Climatic Factors**

11.17. Climate projections for the UK<sup>26</sup> suggest that we can expect the following changes:

- higher average temperatures, particularly in summer and winter
- changes in seasonal rainfall patterns

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<sup>26</sup> [www.ukcip.org.uk](http://www.ukcip.org.uk)

- rising sea levels
- more very hot days and heatwaves
- more intense downpours of rain
- higher intensity storms

11.18. As well as changes in average climate, there could be changes in weather extremes. Extreme events are likely to be more frequent in the future and often have the most significant impacts. UK Climate Projections 2009 data for the East Midlands<sup>27</sup> suggests that, under a medium emissions scenario, by the 2050s the region may see:

- An increase in summer mean temperature of around 2.5°C, and winter temperatures of around 2.2°C;
- A 14% increase in winter mean precipitation;
- A 16% decrease in summer mean precipitation.

### **Carbon Dioxide Emissions**

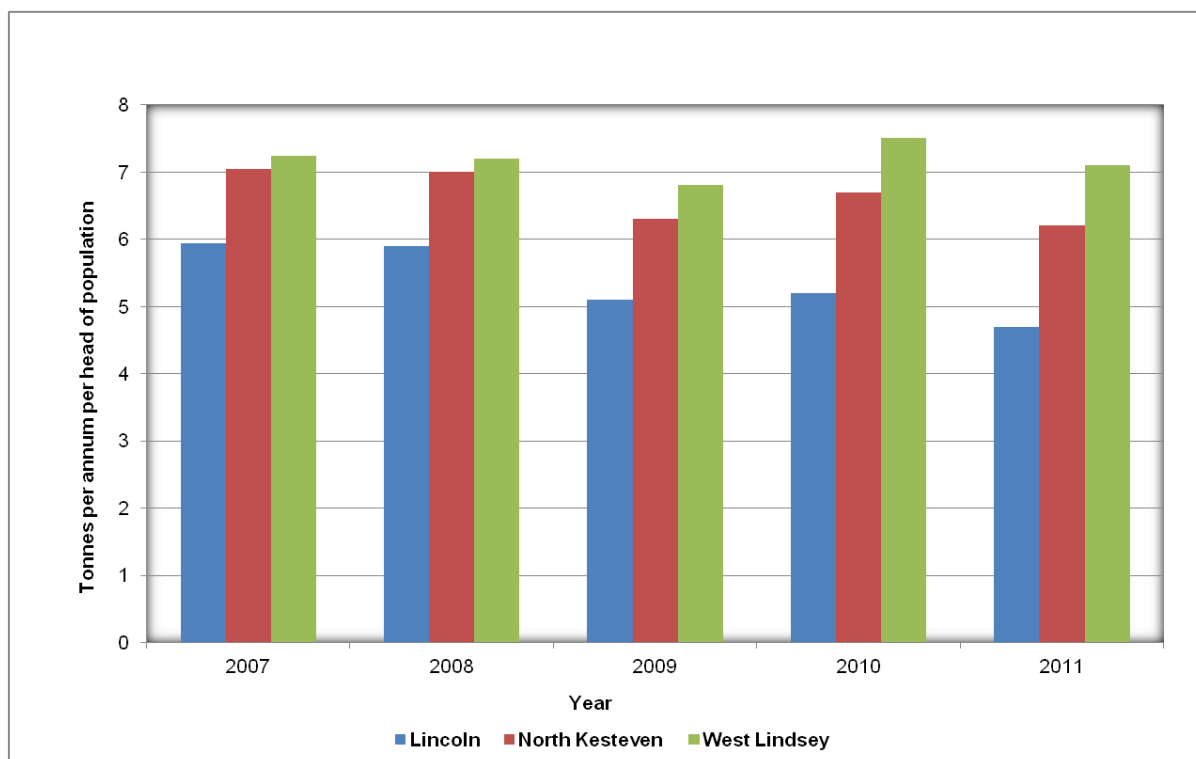
11.19. Carbon dioxide emissions per head of population are higher in rural parts of Central Lincolnshire than in the main urban settlement of Lincoln. Emissions have been falling in Lincoln, but the figures for North Kesteven and West Lindsey have remained around the same.

11.20. Figure 7 below provides a summary of estimated carbon dioxide emissions by sector and shows that the majority of Lincoln's carbon emissions come from industrial and commercial activities but in West Lindsey and North Kesteven, it is transport.

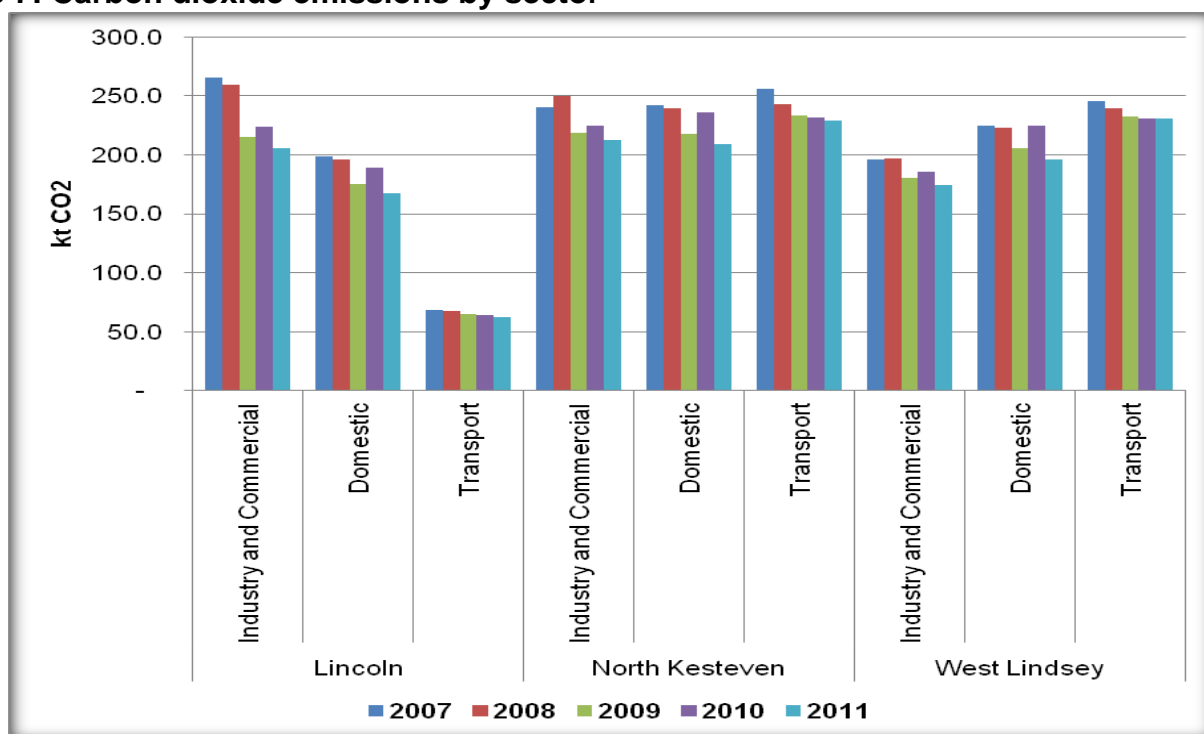
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<sup>27</sup> A Summary of the Local Climate Impacts Profile for Lincolnshire, <http://www.climateem.org.uk/images/uploads/Lincolnshire-web.pdf>

**Figure 6: Carbon dioxide emissions per annum<sup>28</sup>**



**Figure 7: Carbon dioxide emissions by sector<sup>29</sup>**



<sup>28</sup> Department for Energy and Climate Change, accessed online at Lincolnshire Research Observatory (27.3.14)

<sup>29</sup> DECC, accessed online at <https://www.gov.uk/government/publications/local-authority-emissions-estimates>

## Energy

**Table 15: Domestic Energy Consumption per Residential Consumer**

	Average electricity sale 2011	Average gas sale 2011	Average electricity sale 2008	Average gas sale 2008
	Residential kWh			
<b>Lincoln</b>	3, 484	12, 662	3, 543	14, 909
<b>West Lindsey</b>	4, 296	14, 569	4, 389	17, 005
<b>North Kesteven</b>	4, 305	14, 379	4, 436	16, 765
<b>Central Lincolnshire</b>	4, 028*	13,870*	4, 130	16, 120
<b>East Midlands</b>			4, 135	17, 075
<b>UK</b>			4, 198	16, 906

Source: DECC 2013

\*Mean

**Table 16: Non Domestic Energy Consumption**

	Average Annual MWh per Meter Gas 2011	Average Annual MWh per Meter Electricity 2011	Average Annual MWh per Meter Gas 2008	Average Annual MWh per Meter Electricity 2008
<b>Lincoln</b>	617	78	583	93
<b>West Lindsey</b>	483	53	488	56
<b>North Kesteven</b>	754	68	742	76
<b>Central Lincolnshire</b>	618*	66*	604	75
<b>East Midlands</b>				
<b>UK</b>	728	75		

Source: DECC 2013

\*Mean

- 11.21. Between 2008 and 2011, the average domestic electricity and gas consumption of a Central Lincolnshire resident fell by 102kWh and 2, 250kWh, respectively. Between 2008 and 2011, the average non domestic energy consumer in the District reduced their electricity consumption by 9MWhs, bringing the total annual amount to 66MWhs, 9MWhs less than the Great Britain average. Non domestic gas consumption went up over the same time period from 604MWh to 618MWh, but 110MWh less than the national average of 728Mwh.

## Renewable Energy Installations/Capacity

- 11.22. Central Lincolnshire has seen a number of renewable energy installations completed in recent years. Table 17 below sets out the number of installations by technology and installed capacity. The table shows that the majority of installations in Central Lincolnshire have been domestic.

**Table 17: Renewable Energy Installations in Central Lincolnshire (Confirmation dates between 01/04/2010 and 27/03/2014)<sup>30</sup>**

Technology	Domestic Installations	Domestic Installations Installed Capacity (MW)	Commercial Installations	Commercial Installations Installed Capacity (MW)	Industrial Installations	Industrial Installations Installed Capacity (MW)	Community Installations	Community Installations Installed Capacity (MW)	Total Installations	Total Installed Capacity (MW)
Photovoltaic	3617	13.168	87	2.412	5	0.162	5	0.021	3714	15.764
Wind	11	0.079	6	0.135	0	0.000	1	0.006	18	0.220
<b>Total Installed Capacity (MW)</b>		13.247		2.547		0.162		0.027		15.984
<b>Total Installations</b>	3628		93		5		6		3732	

<sup>30</sup> Ofgem (2014) FIT Installations Statistical Report [online], available from:  
<https://www.renewablesandchp.ofgem.gov.uk/Public/ReportManager.aspx?ReportVisibility=1&ReportCategory=0>

- 11.23. In Sleaford, a 38MW renewable energy plant that will generate energy from burning straw is nearing completion. Once operational, the plant will generate enough electricity to generate power for 65,000 homes. The surplus heat generated by the plant will be harnessed and used for heating Sleaford's public swimming pool and indoor bowling centre, the town's football club and, subject to planning consent, provide surplus heat to North Kesteven District Council's office in the town.

### **Flood Risk**

- 11.24. Within Central Lincolnshire, a number of homes, businesses and related infrastructure are located within flood risk areas. Flooding of buildings and infrastructure is the main climate risk in Central Lincolnshire and increased incidences of flood events may lead to increased health problems.<sup>31</sup>
- 11.25. The Strategic Flood Risk Assessments for the Lincoln Policy Area, West Lindsey and North Kesteven provide the best current information regarding flood risk in the Central Lincolnshire area<sup>32</sup>. The main flood risks within the Lincoln Policy Area for the urban areas of Lincoln are considered to be from fluvial flooding from the River Witham, River Till and the Fosdyke Canal, and for Gainsborough from the River Trent which is tidal.
- 11.26. Local Planning Authorities are required to consult the EA on all applications for development in flood risk areas (except minor development). During 2011/12, there were 3 planning permissions granted contrary to EA advice on the grounds of flooding or water quality.<sup>33</sup>

### **Are there any evidence gaps?**

#### **What will be the likely future situation without the Local Plan?**

- How the Local Plan distributes future growth will be a significant contributor to whether carbon dioxide emissions decrease. Growth in locations which minimise the need to travel will be an important consideration.
- Through the Housing Standards Review, national building regulations are to be tightened in relation to water and energy efficiency however, there would be the opportunity for local authorities to set tighter standards for water efficiency through the Local Plan if they are in an area of water stress.

#### **What are the key issues that should be a focus for the appraisal?**

- Climate change over the coming century is likely to increase the likelihood and consequences of flooding. Despite this development demands in the greater Lincoln area

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<sup>31</sup> Climate Change East Midlands 2012 A Summary of Climate Change: Risks for the East Midlands

<sup>32</sup> JBA Consulting 2010 Lincoln Policy Area Strategic Flood Risk Assessment Final Report; AECOM 2009 North Kesteven Strategic Flood Risk Assessment; 2009 West Lindsey Strategic Flood Risk Assessment

<sup>33</sup> Central Lincolnshire Annual Monitoring Report 2011/12, March 2013



are likely to result in pressure to develop in areas at risk of flooding. Development coming forward in such areas will need to mitigate the impacts of climate change, to be safe itself and not increase flood risk to others. Parts of the Central Lincolnshire area are at risk of flooding. Where development in areas of risk cannot be avoided consideration needs to be given to how that development can be made safe and to what standard.

- Will new development be able to contribute towards a reduction in flood risk for existing development?
- Need to ensure Central Lincolnshire is resilient to climate change.
- The need to cut greenhouse gas emissions.
- The need to mitigate and adapt to the effects of climate change.
- Need to reduce reliance on finite resources and explore alternative ways to increase the amount of energy generated by decentralised or renewable sources, taking into account local opportunities.

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to climate change (adaptation and mitigation):

- To minimise the effects of climate change by developing the area's renewable energy resources, reducing dependency on fossil fuels, minimise energy usage, and to reduce greenhouse gas emissions from the area.
- To ensure Central Lincolnshire adapts to the effects of climate change, both now and in the future through careful planning and design of development, including reducing and managing the risk of flooding from all sources.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **12. TRANSPORT AND ACCESSIBILITY**

### **What is the policy context?**

**International and National Legislation includes:**

**12.1. Door to Door: A Strategy for Improving Sustainable Transport Integration (DfT, 2013)** The strategy focuses on four core areas which need to be addressed so that people can be confident in choosing greener modes of transport:

- Accurate, accessible and reliable information about different transport options.
- Convenient and affordable tickets.
- Regular and straightforward connections at all stages of the journey and between different modes of transport.
- Safe and comfortable transport facilities.

**12.2.** The strategy also includes details on how the Government is using behaviour change methods to reduce or remove barriers to the use of sustainable transport, and working closely with stakeholders to deliver a better-connected transport system.

**12.3. Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, Transport White Paper (2011)** It explains how the Government is placing localism at the heart of the transport agenda, taking measures to empower local authorities when it comes to tackling these issues in their areas.

- Locally tailored transport solutions can meet the needs of local people can create growth and improve quality of life.
- Transport planning and local land use planning need to work together to make active travel and public transport more attractive and to manage traffic to reduce carbon emissions and tackle congestion.
- There is a need to make car travel greener, particularly through electric vehicles and infrastructure.

**12.4. National Planning Policy Framework and Practice Guidance** Local Plans should support a pattern of development that facilitates the use of sustainable modes of transport. Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.

**12.5. Lincolnshire County Council (2013) 4<sup>th</sup> Local Transport Plan: 2013/14 – 2022/23** The 4th Lincolnshire Local Transport Plan was published in April 2013 and sets out the transport strategy for the county for the next 10 years. It is supported by a range of other policies and strategies covering specific transport related issues or areas.

**12.6.** The Plan identifies three main challenges:

- Supporting growth and the local economy,
- Improving access to employment, training and key services, and

- Contributing to a healthier community.

12.7. It also sets out eight objectives, including supporting the local economy and encouraging sustainable growth.

## **What is the current baseline?**

### **Transport Usage**

12.8. There has been a continued increase in bus passenger journeys in Lincolnshire, growing by 31% between 2005/6 and 2008/9. There has been a slight downturn in 2010/11. The growth in England over the same period was only 8%. Rail passenger usage also continues to grow. Between 2004/5 and 2011/12, rail passenger usage grew by some 15.3%. However, the picture varies widely at individual stations, with many showing an increase, some with little change and a few showing a decrease<sup>34</sup>. In 2012/13, the % of adults cycling at least once a week in Central Lincolnshire was above the regional and national average of 9% and has increase since 2010/11 (Active People Survey, Sport England).

### **Travel to Work**

12.9. 2011 Census data reveals a high proportion of the Central Lincolnshire working age population travelling to work by car, with the highest proportion in the predominantly rural districts of West Lindsey and North Kesteven. Lincoln has the highest proportion of people walking to work (19.6%), but the lowest working from home (3.4%).

### **Access to Services**

12.10. The proportion of households in Lincolnshire without access to a car has fallen from 31.1% in 1981 to 18% in 2011. Within Central Lincolnshire, the percentage of households without access to a car in Lincoln and Gainsborough is above the county, regional and national average (at 29.6% and 31% respectively at the time of the 2011 Census). The figure for West Lindsey and North Kesteven is below the county, regional and national average. This means that a significant proportion of the population rely on alternatives modes to the private car to access shops, services, facilities and employment.

## **Are there any evidence gaps?**

## **What will be the likely future situation without the Local Plan?**

- Without a long term strategic plan for the amount and location of housing and employment growth, it will be difficult for public transport operators to accurately estimate future transport users and to ensure services keep pace with growth.

## **What are the key issues that should be a focus for the appraisal?**

- Reduce congestion in main urban settlements, particularly Lincoln and Sleaford.
- For those without access to a car, improving accessibility to employment, services and facilities is a key issue, especially in rural areas.
- Promoting sustainable modes of travel, including walking and cycling.

<sup>34</sup> Office of Rail Regulation, Lincolnshire County Council Transport Monitoring Report, April 2013

### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to transport and accessibility:

- To make efficient use of the existing transport infrastructure, reduce the need to travel by car, improve accessibility to jobs and services for all and to ensure that all journeys are undertaken by the most sustainable travel modes (particularly public transport, walking and cycling).

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **13. ECONOMY, EMPLOYMENT AND EDUCATION**

### **What is the policy context?**

**International and National Legislation includes:**

**13.1. National Planning Policy Framework and Practice Guidance** The Government places significant weight on the role of Planning in supporting sustainable economic growth. Through the Local Plan, Local Authorities should:

- set a clear economic vision and strategy for their area,
- set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period,
- support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their area,
- plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries,
- identify priority areas for economic regeneration,
- facilitate flexible working practices such as the integration of residential and commercial uses.

**13.2.** Planning policies should be positive, promote competitive town centre environments and set out policies for the management and growth of centres over the plan period. In drawing up Local Plans, local planning authorities should:

- recognise town centres as the heart of their communities and pursue policies to support their viability and vitality;
- define a network and hierarchy of centres that is resilient to anticipated future economic changes;
- define the extent of town centres and primary shopping areas;
- promote competitive town centres;
- retain and enhance existing markets and, where appropriate, re-introduce or create new ones;
- allocate a range of suitable sites to meet the scale and type of retail, leisure, commercial, office, tourism, cultural, community and residential development needed in town centres;
- allocate a range of suitable sites to meet the scale and type of retail, leisure, commercial, office, tourism, cultural, community and residential development needed in town centres;
- set policies for the consideration of proposals for main town centre uses which cannot be accommodated in or adjacent to town centres;
- recognise that residential development can play an important role in ensuring the vitality of centres and set out policies to encourage residential development on appropriate sites;
- where town centres are in decline, local planning authorities should plan positively for their future to encourage economic activity.

13.3. Planning policies should support economic growth in rural areas in order to create jobs and prosperity by taking a positive approach to sustainable new development. To promote a strong rural economy, local and neighbourhood plans should:

- support the sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well designed new buildings;
- promote the development and diversification of agricultural and other land-based rural businesses;
- support sustainable rural tourism and leisure developments that benefit businesses in rural areas, communities and visitors, and which respect the character of the countryside. This should include supporting the provision and expansion of tourist and visitor facilities in appropriate locations where identified needs are not met by existing facilities in rural service centres; and
- promote the retention and development of local services and community facilities in villages, such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.

13.4. **Lincolnshire Economic Strategy 2011** Highlights a number of key issues and challenges for the county all of which also apply to Central Lincolnshire:

- A poor performing economy with low GVA
- Low unemployment, skills and wages
- Recession and economic downturn
- Fast growing but ageing population
- Rural accessibility issues
- Urban deprivation issues
- Rise in house prices not in line with wages and house builds
- Pressure to reduce CO2 emissions

13.5. **Central Lincolnshire Economic Growth Strategy 2012-2031 – Unlocking the Potential to Deliver Growth** This Strategy has 5 main strategic objectives which are:

- To deliver sustainable economic growth in the Lincoln Principal Urban Area, Gainsborough and Sleaford
- To facilitate the necessary infrastructure to support growth
- To stimulate the local economy by supporting new and existing businesses, tourism and attracting inward investment
- To ensure access to employment and skills provision
- To deliver and maintain a robust and up to date evidence base

13.6. The Strategy contains challenging actions which will need to be implemented if the Central Lincolnshire authorities and their partners are to deliver economic growth across

the area. Includes focus on delivering additional strategic employment allocations of high quality to meet identified needs.

**13.7. Greater Lincolnshire Local Enterprise Partnership Strategic Economic Plan, March 2014** Sets out 5 priorities for growth which are summarised as:

- To drive growth for the area's strongest sectors offering the most competitive advantage: agri-food, manufacturing and the visitor economy;
- Growth specific opportunities identified as future defining features of the area: health and care, low carbon and ports and logistics,
- Drive growth by putting expansion into new markets, modern telecommunications, infrastructure improvements and skills of individuals and business owners;
- Promote Greater Lincolnshire as a place for sustainable growth
- Recognise need for new housing and support balanced housing and economic development.

**13.8.** The Plan sets out targets to 2030 to achieve the priorities:

- Create 13,000 new jobs
- Support 22,000 businesses
- Increase the value of the Greater Lincolnshire economy by £3.2 billion by 2030
- Deliver up to 100,000 new homes

**13.9. Central Lincolnshire HMA Employment Land Review 2010** There main elements of the study are:

- An assessment of the economy that will inform the amount, location and type of employment land and premises required to facilitate its development and growth;
- A review of the current portfolio of employment land and premises; and
- Recommendations on the future allocation of employment land and premises in Central Lincolnshire.

**13.10. Central Lincolnshire City and Town Centre Study 2012** The key focus of the study is the provision of an up to date assessment of the future capacity for retail development in the 3 local authority areas and in particular the main centres of Lincoln, Gainsborough and Sleaford. The Study is concerned with two separate stages, namely:-

- A quantitative need assessment for Central Lincolnshire in order to update the principal findings and recommendations set out in the authorities' previous retail studies; and
- Recommendations on the ability of the main centres to accommodate the type and scale of need identified.

## **What is the current baseline?**

### **Unemployment**

13.11. Unemployment rates in Central Lincolnshire have increased between June 2011 and June 2012, however the rate in Lincoln is above the county, regional and national rate.

### Income

13.12. Average annual earnings across Central Lincolnshire are similar to county and regional average earnings, with full time residents in West Lindsey earning approximately £2,000 more than Lincoln and North Kesteven full time residents. Average weekly earnings are below the national average across all three Central Lincolnshire districts but in line with or above county and regional averages.

13.13. The Index of Multiple Deprivation 2010 includes a domain for employment. Parts of Gainsborough and Lincoln are in the top 10% most deprived in the country for employment.

### Employment

13.14. The Greater Lincolnshire Strategic Economic Plan identifies 3 core economic sectors: agri-food, manufacturing and the visitor economy. Greater Lincolnshire's contribution to GVA from agri-food is 4 times the UK average and for manufacturing 1 1/2 times the UK average. Sectors with potential for growth in the future are considered to be the low carbon economy, health and care and ports and logistics. Employment sectors that are expected to grow in Central Lincolnshire include construction, tourism, retail and wholesale and; transport and communications<sup>35</sup>.

**Table 18:** Employment by Broad Industrial Group 2010

<b>Industrial Group</b>	<b>Lincoln</b>	<b>North Kesteven</b>	<b>West Lindsey</b>	<b>Central Lincolnshire</b>
Manufacturing	5, 500	4, 400	3, 300	13, 200
Construction	1, 700	2, 800	2, 100	6, 600
Services	45, 900	24, 600	18, 100	88, 600
Tourism Related	3, 800	2, 500	2, 100	8, 400

**Source:** ONS Annual Business Inquiry Employee Analysis 2008

13.15. Job density is the ratio of total jobs to resident population aged 16-64. A job density of one would mean there is a job for every resident aged 16-64. Within Lincoln, job density is 0.91, within West Lindsey 0.55 and within North Kesteven 0.73 (compared to the East Midlands 0.75 and Great Britain 0.78)<sup>36</sup>.

### Education

#### ***Demand for School Places***

<sup>35</sup> Lincolnshire County Council 2011 Lincolnshire Local Economic Assessment 2011

<sup>36</sup> Office for National Statistics (2011) Job density 2011 [online] available at: [www.nomisweb.co.uk](http://www.nomisweb.co.uk) (accessed 27/3/2014)



13.16. Lincolnshire's School Organisation Plan 2012<sup>37</sup> shows a continued rise in primary rolls, mainly focused on urban areas, leading to significant projected shortages in Lincoln North, Skegness, Deepings, Bourne, Boston, Spalding and some smaller settlements.

13.17. In the secondary sector numbers are declining slightly but many schools remain oversubscribed compared to permanent capacity due to local demand and continued developments.

### **Qualifications**

13.18. The rate of pupils achieving 5 or more GCSEs has remained around the same across Central Lincolnshire between 2009/10 and 2011/12. The 2011 Census revealed that around 22% of Central Lincolnshire residents aged 16 and over have no qualifications, better than the County average of 26%.

### **Training and Skills**

13.19. The % of 16 to 18 year olds not in education, employment or training in Lincoln is 8.67, nearly double the county average of 4.6%. The Gainsborough area has a similar rate to Lincoln of 8.04%.

13.20. Around 30% of employers foresee a need for increased skills in their workforce.<sup>38</sup> Graduate retention is an issue for Central Lincolnshire, whereby it is losing graduates with high skill levels to other areas in the country where high skill employment opportunities are greater.<sup>39</sup>

13.21. The Index of Multiple Deprivation 2010 includes a domain for education, skills and training. Parts of Gainsborough and Lincoln are in the top 10% most deprived in the country for education, skills and training.

13.22. According to the Central Lincolnshire Annual Monitoring Report 2010/11, there are around 32.58 ha of B1 and 143.23 ha of mixed employment land available in Central Lincolnshire. During 20010/11, 7.24ha of employment land was taken up in Central Lincolnshire. Employment floorspace completed is shown in Table 19 below.

**Table 19: Total Amount of Additional Floorspace by Type 2010/11**

<b>Use Class</b>	<b>Central Lincolnshire</b>
<b>B1</b>	<b>386</b>
<b>B2</b>	<b>478</b>
<b>B8</b>	<b>4512</b>
<b>Mix</b>	<b>11748.75</b>
<b>Total</b>	

<sup>37</sup> Lincolnshire County Council School Organisation Plan

<sup>38</sup> National Employers Skills Survey 2009, accessed online

<sup>39</sup> Lincolnshire – A Local Economic Assessment 2011

**Source:** Central Lincolnshire Annual Monitoring Report 2010/11

13.23. The Lincolnshire Local Economic Assessment identifies that the business stock in Lincolnshire as a whole is growing however, the development of employment sites in the county is considered less attractive than other parts of the country due to remoteness and lack of infrastructure. For example, the current network of utilities such as water and electricity may have insufficient capacity to meet the needs of potential investors.

### **Broadband**

13.24. Having access to fast broadband allows businesses opportunities that aren't otherwise available. In rural areas, slow broadband speeds can hamper the competitiveness of rural businesses. The Lincolnshire Research Observatory have produced an interactive toolkit that provides information on Broadband speed and penetration in Lincolnshire. This shows that there are some rural areas within Central Lincolnshire that have been classed as having slow or very slow broadband.<sup>40</sup>

### **Are there any evidence gaps?**

#### **What will be the likely future situation without the Local Plan?**

- Potentially insufficient employment land could be provided impacting on Central Lincolnshire's competitiveness as a location for business.
- Could result in employment floorspace being located in unsustainable locations placing demand on transport infrastructure.
- Without the Local Plan, it is unlikely that infrastructure required to facilitate development can be coordinated and delivered.

#### **What are the key issues that should be a focus for the appraisal?**

- Reduce dependency on limited number of employment sectors by growing and diversifying the economy
- Above county averages for percentage of 16 to 18 year olds not in education, employment or training and pockets of education, skills and training deprivation in the top 10% most deprived in the country.
- The need to broaden the skills base
- Attract inward investment
- Infrastructure to support sustainable economic growth

#### **What are the key objectives that need to be considered?**

From the review of policy, baseline data and analysis of the resulting key issues, the following objectives have been developed relating to economy, employment and education:

- To create and improve access to high quality employment and training opportunities for everyone within the Central Lincolnshire area.

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<sup>40</sup> Lincolnshire Research observatory accessed February 2012 at <http://www.research-lincs.org.uk/Broadband.aspx>

- To encourage and support a competitive, diverse and stable economy and to protect and enhance Central Lincolnshire's hierarchy of centres to meet the needs of residents and visitors.

Please see the IIA Framework in section 16 for the decision making questions and indicators relating to these objectives.

## **14. Integrated Impact Assessment Framework**

- 14.1. The purpose of the IIA Framework is to provide a consistent basis for describing and analysing the sustainability performance of the Local Plan. The Framework is objectives led, whereby a set of objectives have been devised which set out what is ideally to be achieved in terms of sustainable development. The degree to which the Local Plan is anticipated to contribute towards these objectives provides a measure of its sustainability.
- 14.2. The IIA objectives largely reflect the objectives developed for the IIA of the withdrawn Central Lincolnshire Core Strategy, but have been updated to reflect the experience of past assessments and the issues identified in the updated review of policies and baseline data.
- 14.3. Decision making questions have been developed for each of the IIA objectives as prompts for those undertaking the IIA to tease out the likely impacts.
- 14.4. The following table below outlines the relationship between the IIA objectives and the issues that are required for consideration in Annex I of the SEA Directive.

**Table 20:** Relationship between IIA objectives and SEA issues

<b>SEA Issues</b>	<b>Central Lincolnshire IIA Objectives</b>
Biodiversity	4
Population	1, 2, 3, 14, 15
Human health	1, 2, 3, 4, 8, 14
Fauna	4
Flora	4
Soil	9
Water	7
Air	8
Climatic factors	11, 12
Material assets	1, 10, 13
Cultural heritage, including architectural and archaeological heritage	6
Landscape	5

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
<b>Social</b>		
<b>1. Housing.</b> To ensure that the housing stock meets the housing needs of the Central Lincolnshire area.	Will it increase the supply of affordable housing?  Will it increase the range of housing types, sizes and tenures, to meet the identified needs of all social groups and local residents?  Will it meet the needs of Gypsies, Travellers and Travelling Show people?  Will it reduce homelessness and overcrowding?  Will it reduce the number of homes that do not reach the Decent Homes Standard?  Will it improve insulation, internal air quality and energy efficiency in existing housing to reduce fuel poverty and ill-health?  Will it bring empty homes back into use?	Affordable housing completions  % of affordable homes as proportion of new dwelling completions.  House prices; housing affordability  All Housing completions - Total houses built in plan period: numbers, types, sizes, tenures and locations of new houses  Number in housing need from SHMA and surveys  Profile of housing types and tenures  Total net additional gypsy and traveller pitches  Total number of vacant dwellings and number of private dwellings vacant for 6 months or more  Number of statutory homelessness households  "Percentage of homes classified as non decent by tenure". % households in fuel poverty
<b>2. Health.</b> To reduce health inequalities, promote healthy lifestyles and maximise health and well being.	Will it help reduce health inequalities?  Will it help improve mental and emotional health?	Health inequalities by groups and area  Life expectancy at birth  Early mortality rates (cancer, heart disease and

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it improve accessibility for all to health and welfare services across the area?</p> <p>Will it encourage and support healthy lifestyles? (for example through the provision of and./or improved access to green space)</p> <p>Will it encourage a range and mix of land uses that underpin local health; for example, avoiding over concentration of hot food takeaways in one location?</p> <p>Will it provide opportunities to access fresh, affordable and healthy food?</p> <p>Will it help improve road safety by reducing danger from traffic and traffic speed?</p>	<p>stroke)</p> <p>Number of residents with long term illness</p> <p>Percentage of households within 30 minutes of a GP, pharmacy on foot/via public transport.</p> <p>Delivery of new or enhanced health and social care facilities</p> <p>% obese adults and children</p> <p>Adult participation in 30 minutes moderate intensity sport</p> <p>% healthy eating adults</p> <p>Number killed or seriously injured in road traffic collisions per 100,000 population</p> <p>Excess winter mortality</p> <p>Accessible natural greenspace</p>
<p><b>3. Social Equality and Community.</b> To stimulate regeneration that maximises benefits for the most deprived areas and communities in Central Lincolnshire. To also ensure equitable outcomes for all, particularly those most at risk of experiencing discrimination, poverty and social exclusion.</p>	<p>Will regeneration provide benefits for the most deprived areas?</p> <p>Will it help reduce social inequality, poverty and social exclusion in communities in the area?</p> <p>Will it help reduce deprivation in communities the area?</p>	<p>Indices of Multiple Deprivation by domain and area</p> <p>Income inequality</p> <p>Housing mix within a given locality</p> <p>Population structure within a locality</p> <p>Interaction and opportunities for interaction and activities within communities. i.e. (i) Number of new or existing accessible</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it support cultural diversity, social interaction, civic participation (social capital), to promote more diverse and cohesive communities?</p> <p>How will different groups of people be affected, including black and minority ethnic communities, women, disabled people, lesbians, gay men, bisexual and transgender people, older people, young people, children and faith groups? Will it benefit the groups listed above?</p> <p>Will it help people feel positive about the area they live in?</p> <p>Will it promote adequate accessibility for those people who are elderly or disabled?</p> <p>Will it help to create communities where people feel safe?</p> <p>Will it reduce levels of crime, the fear of crime and antisocial behaviour?</p>	<p>community or leisure centres by area and use (ii) Gains/losses of community facilities (iii) Participation (nos.) in voluntary and community activities.</p> <p>Satisfaction with leisure facilities</p> <p>Age, gender, gender reassignment, disability, marital status, religion and belief and ethnicity profiles for Central Lincolnshire.</p> <p>No of Reported Crimes per 1000 population – by category and area</p> <p>Anti-social behaviour complaints per 1000 population</p>
<b>Environmental</b>		
<p><b>4. Biodiversity and Green Infrastructure.</b> To conserve and enhance biodiversity across Central Lincolnshire and provide opportunities for people to access and appreciate wildlife and the natural environment. To create and improve high</p>	<p>Will it protect or enhance/ habitats of international, national, regional or local importance?</p> <p>Will it protect international, national, regional or locally important species?</p>	<p>Total number of sites: SSSIs, NNRs, LNRs, Local Wildlife Sites, Local Geological Sites and RIGS.</p> <p>Total number of SNCIs/SINCs/County Wildlife Sites</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
quality green and blue spaces that are multifunctional, (including opportunities for sport, recreation and play), accessible to all and which form part of and are connected to the green infrastructure network.	<p>Will it avoid the loss of existing habitats and sites valuable for their nature conservation interest?</p> <p>Will it lead to habitat re-creation, restoration or expansion?</p> <p>Will it reduce fragmentation of habitats by maintaining wildlife corridors or providing new wildlife linkages?</p> <p>Will it help achieve Lincolnshire Biodiversity Action Plan (BAP) targets?</p> <p>Will it maintain and enhance woodland cover and management?</p> <p>Will it improve access to wildlife and the natural environment and promote their quiet enjoyment?</p> <p>Will it improve the quantity and quality of publicly accessible open space?</p> <p>Will it provide open space in areas with deficiencies in publicly accessible open space?</p> <p>Will it improve access to green and blue space for all?</p>	<p>Total land area of: SSSIs, Local Wildlife Sites, Local Sites (LWS and LGS)</p> <p>Local Sites (Local Wildlife Sites and Local Geological Sites) as a percentage of total land area</p> <p>Local Geological Sites as a percentage of total Local Authority land area</p> <p>Area of SSSIs in favourable condition, neither favourable nor recovering condition and in recovering condition.</p> <p>Area of SSSIs in adverse condition as a result of development</p> <p>Number of planning applications with conditions to ensure works to manage/enhance the condition of SSSI features of interest.</p> <p>% of Local Wildlife Sites (SNCI, CWS, SINC etc) and RIGS changed due to new development.</p> <p>Number and proportion of Local Sites in positive conservation management.</p> <p>Number of planning applications which result in the need for a protected species licence.</p> <p>Number of planning applications with conditions imposed to ensure working practices and works to protect/ enhance protected species.</p>



CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it provide opportunities for or improve the provision of sports, recreation and play facilities?</p> <p>Will it provide opportunities for local food production?</p>	<p>Change in area of habitats and records of flora and fauna species in respect of biodiversity objectives.</p> <p>BAP habitat created and/or managed as result of granting planning permission and which meet BAP targets.</p> <p>Proportion of farmers entering into agri-environment and environmental stewardship, and other similar schemes.</p> <p>Natural England's Accessible Natural Greenspace Standard</p> <p>Amount of new open space created by type</p> <p>Amount of open space lost to development by type</p>
<p><b>5. Landscape and Townscape.</b> To protect and enhance the rich diversity of the character and appearance of Central Lincolnshire's landscape and townscape, maintaining and strengthening local distinctiveness and sense of place.</p>	<p>Will it protect, and provide opportunities to enhance, the distinctive landscapes within the area (e.g. Conservation Areas, Lincolnshire Wolds AONB, Green Wedge land, Landscape Character Areas, Visual Amenity Areas).</p> <p>Will it conserve and enhance local landscape and townscape character, and visual amenity?</p> <p>Will it protect historic landscapes and settlement character?</p> <p>Will it protect important views?</p>	<p>Area of Ancient woodland.</p> <p>Area of woodland/new woodland and changes</p> <p>Area of land designated as Green Wedge, and amount lost to new development</p> <p>Percentage of landscape National Character Areas (Natural England) showing no change or showing change consistent with character area descriptions (also using local Landscape Character Assessments)</p> <p>No/% of new developments in areas of land designated for its landscape quality or amenity value.</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	Will it protect, enhance and manage the historic character of towns and villages to maintain and strengthen local distinctiveness?	% of new development with landscape appraisals or landscape management plans.
<b>6. Built and Historic Environment.</b> To protect and enhance the significance of the buildings, sites and features of archaeological, historic or architectural and artistic interest and their settings, and ensure new buildings, spaces and places are designed to a high quality.	Will it protect, maintain and enhance the condition and setting of features and areas of cultural, historical and archaeological heritage in the environment?  Will it promote the sensitive re-use of historic or culturally important buildings or areas where appropriate?  Will it improve access to historic sites?  Will it improve the understanding of the area's heritage and culture?  Will it enhance the quality of the public realm?  Will it promote high quality design and sustainable construction?  Will it positively enhance and promote the perceived sense of place held by the community?	Number of listed buildings and number at risk.  Number of Conservation Areas and number at risk.  Percentage of Conservation Areas with up to date (less than 5 years) Conservation Area character appraisals or Management Plans.  Number of Scheduled Monuments and other archaeological sites and number at risk.  Number of Historic Parks and Gardens and number at risk.  Local heritage at risk (Lincolnshire Heritage at Risk Project)
<b>7. Natural Resources – Water.</b> To protect and enhance water resources and their quality in Central Lincolnshire.	Will it improve the quality of water bodies?  Will it help meet the objectives of the	The % of rivers and water bodies achieving a good or high classification as part of the Water Framework Directive assessment for water bodies

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Water Framework Directive?</p> <p>Will it promote Sustainable Urban Drainage?</p> <p>Will it reduce abstraction from surface and ground water sources?</p> <p>Will it reduce water consumption through water efficiency measures?</p> <p>Will the demand for water be within the available capacity of existing water systems infrastructure (e.g. water supply and sewage)?</p> <p>Will it provide new water systems infrastructure?</p>	<p>Number and location of water pollution incidents dealt with by Environment Agency.</p> <p>Number of planning permissions granted contrary to advice of the Environment Agency on water quality.</p> <p>Changes in demand for potable water consumption for all purposes (daily litres/household or business consumption)</p> <p>Total water abstractions (litres/day) and abstraction applications agreed/rejected by Environment Agency.</p> <p>Volume of water (litres/day) supplied to new development within existing water abstraction licence quantities.</p> <p>Volume of water (litres/day) supplied to new development where the Environment Agency have granted a new abstraction licence.</p> <p>Volume of water (litres/day) demanded by new development where the Environment Agency have refused permission for a new abstraction licence.</p> <p>Number of new developments incorporating grey water recycling technology or Sustainable Drainage Systems (SuDS)</p>
<p><b>8. Pollution</b> To minimise pollution (air, noise and light) and improve air quality.</p>	<p>Will it minimise air, noise and light pollution from current activities and the potential for such pollution?</p>	<p>Number of days moderate/high air pollution</p> <p>Fraction of all cause adult mortality attributable to</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it improve local air quality, especially in Air Quality Management Areas?</p> <p>Will it reduce greenhouse gas emissions?</p> <p>Will it help achieve national and international standards and objectives for air quality?</p> <p>Will it reduce levels of noise pollution?</p> <p>Will it result in an adverse change to the character of the night time lighting conditions?</p>	<p>long-term exposure to current levels of anthropogenic particulate air pollution.</p> <p>Carbon Dioxide emissions in kilo tonnes by sector</p> <p>Change in PM10, NO2 and SO2 levels.</p> <p>Peak hour traffic congestion.</p> <p>Number of Air Quality Management Areas (AQMAs)</p> <p>Number of noise complaints received per 1000 population.</p>
<p><b>9. Natural Resources – Land Use and Soils.</b></p> <p>To protect and enhance soil and land resources and quality in Central Lincolnshire.</p>	<p>Will it protect soil resources and minimise the loss of soils to development?</p> <p>Will it remediate contaminated land?</p> <p>Will it protect the best and most versatile agricultural land?</p> <p>Will it result in the loss of Greenfield land?</p> <p>Will it make the best use of Brownfield land?</p>	<p>Amount of greenfield land lost to development</p> <p>Number of contaminated land sites and % remediated</p> <p>Total area of Grade 1 to 3a agricultural land</p> <p>Proportion of employment and housing development on previously developed land</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it reduce the number of vacant and derelict buildings?</p> <p>Will it help minimise resource use (e.g. primary aggregates)?</p>	
<p><b>10. Waste.</b> To minimise the amount of waste generated across all sectors and increase the re-use, recycling and recovery rates of waste materials.</p>	<p>Will it help minimise the production of waste?</p> <p>Will it encourage the reuse and recycling of waste (e.g. in the design of buildings and spaces)?</p> <p>Will it reduce waste through construction and demolition, and maximise the use of recycled materials, including aggregates?</p>	<p>Amount of household waste sent to landfill</p> <p>% of household waste recycled</p> <p>Weight (kg) of household waste collected per head.</p> <p>% of household waste composted.</p> <p>% of household waste used to recover heat, power, and other energy sources</p> <p>Proportion of construction and demolition waste to landfill.</p> <p>Proportion of construction and demolition waste reused and/or recycled.</p>
<p><b>11. Climate Change Effects and Energy.</b> To minimise the effects of climate change by developing the area's renewable energy resources, reducing dependency on fossil fuels, minimise energy usage, and to reduce greenhouse gas emissions from the area.</p>	<p>Will it reduce the demand and need for energy?</p> <p>Will it encourage and improve the efficient use of energy?</p> <p>Will it support community energy projects?</p> <p>Will it encourage or ensure some energy saving measures in all new developments?</p>	<p>Number / proportion of new buildings / developments meeting BREEAM standards.</p> <p>Number of new energy efficient buildings (average SAP rating of new buildings).</p> <p>Average annual domestic and non domestic consumption of gas and electricity in kWh</p> <p>Energy use – renewables and petroleum products</p> <p>Number of new developments integrating</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>Will it increase the proportion of energy generated from renewable and low carbon energy sources?</p> <p>Will it help reduce dependency on non-renewable energy resources such as fossil fuels?</p> <p>Will it reduce greenhouse gas emissions from transport, domestic, commercial and industrial sources?</p>	<p>renewable energy techniques.</p> <p>Percentage of renewable energy utilised in new developments.</p> <p>Capacity of renewable sources for energy generation within the Central Lincolnshire area, with identified constraints</p> <p>Number of new renewable energy projects installed or developments approved, and energy capacity installed by type</p> <p>% of energy generated in area from renewable sources.</p>
<p><b>12. Climate Change Adaptation and Flood Risk.</b></p> <p>To ensure Central Lincolnshire adapts to the effects of climate change, both now and in the future through careful planning and design of development, including reducing and managing the risk of flooding from all sources.</p>	<p>Will it use sustainable construction and design principles, such as maximising passive solar gain and minimising run-off from development?</p> <p>Will it improve the adaptability of people, property and wildlife to changing temperatures and help avoid overheating in new homes and built up areas (for example through new green space/tree planting)?</p> <p>Will it minimise the impacts of climate change on health and wellbeing, particularly on vulnerable groups in society?</p> <p>Will the development be in an area at</p>	<p>No of planning permissions granted contrary to EA advice on flood risk grounds</p> <p>Number of properties at risk of flooding.</p> <p>Number of new developments built within the floodplain.</p> <p>Number of new developments incorporating grey water recycling technology or Sustainable Drainage Systems (SUDS)</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>risk of flooding? Can the development be otherwise located in an area at a lower risk of flooding?</p> <p>Will it increase the risk of flooding?</p> <p>Will it reduce the number of people and properties at risk of flooding?</p> <p>Will it be 'safe' and resilient to flooding?: manage and reduce flood risk overall and ensure there is no negative impact on third parties, taking into account the impacts of climate change?</p> <p>Will the development tackle existing flood risk problems where appropriate?</p> <p>Will it require substantial mitigation to facilitate the development?</p> <p>Will it incorporate Sustainable Urban Drainage Systems (SuDS) to reduce the amount of surface water run-off?</p>	
<p><b>13. Transport and Accessibility.</b> To make efficient use of the existing transport infrastructure, reduce the need to travel by car, improve accessibility to jobs and services for all and to ensure that all journeys are undertaken by the most sustainable travel modes (particularly public transport, walking and cycling).</p>	<p>Will it reduce the number and length of journeys undertaken by car by encouraging a modal shift to alternative modes of transport (including public transport, walking and cycling)?</p> <p>Will it have easy access to walking, cycling and public transport (bus and</p>	<p>Percentage of the local population within 20 minutes public transport or walking time of:</p> <p>(i) Hospital (ii) GP (iii) Primary school (iv) Secondary school (v) Further education</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>rail) routes and services?</p> <p>Will it utilise and enhance existing transport infrastructure?</p> <p>Will it reduce traffic volumes and traffic congestion?</p> <p>Will it improve access to key local services and facilities, places of employment and green infrastructure?</p> <p>Will it improve access to leisure, sporting, cultural and arts destinations and facilities?</p> <p>Will it reduce the distances people have to travel to access work, services and leisure?</p> <p>Will it enhance the public rights of way and cycling networks?</p>	<p>(vi) Employment (vii) Food store (viii) Town centre</p> <p>% households with no car or van available</p> <p>Length of footpaths improved and created within the area.</p> <p>Levels of bus and railways patronage Proportion of people who travel to work by public transport, walking or cycling</p>
<b>Economic</b>		
<p><b>14. Employment.</b> To create and improve access to high quality employment and training opportunities for everyone within the Central Lincolnshire area.</p>	<p>Will it provide a net increase in new jobs?</p> <p>Will it help reduce unemployment overall?</p> <p>Will it increase average income levels?</p> <p>Will it help improve learning and the</p>	<p>Average annual income /weekly earnings Employment rate Out of work benefit claimants as % of working age population</p> <p>Unemployment rate as % working population</p> <p>% Long term unemployment claimants</p>



CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>attainment of skills?</p> <p>Will it improve opportunities for and access to affordable education and training?</p> <p>Will it help reduce the number of out-workers/out-commuting and outward migration of working age population from Central Lincolnshire?</p> <p>Will it improve the diversity and quality of jobs within the area?</p> <p>Will it help provide employment in areas of high deprivation and help stimulate regeneration?</p>	<p>Working age population qualification levels (no qualifications, level 1, level 2, level 3, level 4, other qualifications, apprenticeships)</p> <p>Pupils achieving 5 or more GCSEs at Grade A*-C</p> <p>% and number of people employed in different sectors</p> <p>Number of out-workers in the area.</p> <p>Percentage of resident workforce who work within / outside the area.</p> <p>% of the working age population who are in employment</p> <p>% of undergraduates retained within the area after graduation.</p> <p>Graduate employment destinations</p> <p>Indices of deprivation – income domain</p>
<p><b>15. Local Economy.</b> To encourage and support a competitive, diverse and stable economy and to protect and enhance Central Lincolnshire's hierarchy of centres to meet the needs of residents and visitors.</p>	<p>Will it assist in providing land and buildings of a type required by businesses, for a range of employment uses?</p> <p>Will it result in a loss of employment land?</p> <p>Will it provide for employment as part</p>	<p>Number of new businesses created per year</p> <p>Completed business development floorspace</p> <p>Amount of Land developed for employment</p> <p>Amount of Employment land lost</p> <p>Amount of Employment land allocated</p>

CENTRAL LINCOLNSHIRE INTEGRATED IMPACT ASSESSMENT FRAMEWORK		
IIA OBJECTIVES	DECISION MAKING CRITERIA	INDICATORS
	<p>of mixed use development?</p> <p>Will it support the rural economy?</p> <p>Will it help diversify the economy?</p> <p>Will it support opportunities to encourage the growth of the visitor economy?</p> <p>Will it encourage new business start ups and support the growth of businesses?</p> <p>Will it support emerging sectors of the economy?</p> <p>Will it support the development of green industries and a low carbon economy?</p> <p>Will it encourage inward investment?</p> <p>Will it encourage new investment from existing businesses?</p> <p>Will it support the viability and vitality of town centres and local shopping areas?</p> <p>Will it support the infrastructure required by a growing and changing economy?</p>	<p>Changes in employment floorspace (e.g. A1, B1, B2 and B8 uses)</p> <p>Monitoring of occupancy and void levels and business rates data through Tractivity</p> <p>New floor space –use classes of development (e.g. A1 and B class uses)</p> <p>Employment land take up rate (Employment Land Review)</p> <p>VAT business registration rate, registrations, de-registrations</p> <p>Businesses per 1000 population</p> <p>Annual growth rate of GVA per capita.</p> <p>Visitor spending – accommodation and attractions</p> <p>Number of Visitors to key tourist attractions.</p>

## 15. Next Steps

15.1. The next stage of the IIA of the Local Plan will be to develop and refine Local Plan alternatives and assess effects. This is known as 'Stage B' in the sustainability appraisal process and includes the following tasks:

- Test the Local Plan objectives against the sustainability appraisal framework;
- Develop the Local Plan options, including reasonable alternatives;
- Identify and evaluate the likely significant effects of the Local Plan;
- Consider ways of mitigating adverse effects and maximising beneficial impacts;
- Proposing measures to monitor the significant effects of implementing the Local Plan.

15.2. The assessment of the Local Plan policies and any reasonable alternatives will be recorded in the assessment proforma as shown in Appendix 1.

15.3. The IIA will use the following criteria to assess the magnitude of the potential impacts of policies in the Local Plan against the IIA objectives:

**Table 21:** Symbols to describe magnitude of effects

Symbol		Definition of Effect
✓✓	Major positive effects	The option or policy is likely to lead to a significant improvement, and to large scale and permanent benefits in the sustainability objective being appraised.
✓	Minor positive effects	The option or policy is likely to lead to moderate improvement and to large scale temporary or medium scale permanent benefits to the sustainability objective being appraised. Beneficial effects should not be easily reversible in the long-term.
0	Neutral effects	A neutral scoring indicates that there are no effects upon the sustainability objective being appraised. This may include the continuation of a current trend.
X	Minor negative effects	The option or policy is likely to lead to moderate damage or loss, leading to large scale temporary or medium scale permanent negative effects on the sustainability objective being appraised.
XX	Major negative effects	The option or policy is likely to lead to significant or severe damage or loss.
/	Mixed effects (e.g. ✓✓/ X major positive and minor negative effects)	The effect is likely to be a combination of positive and negative effects.
?	Uncertain	The effect is not known or is too

		unpredictable to assign a conclusive score.
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15.4. The commentary for each IIA objective will cover the geographical scale of the effects, their magnitude and the timescale over which they will occur. The following criteria will be used as a guide:

**Table 22: Geographical scale criteria**

<b>Scale</b>	<b>Definition</b>
<b>Transboundary</b>	Impacts are likely beyond the boundaries of the Central Lincolnshire Housing Market Area (HMA), i.e. regional, national or international impacts
<b>Central Lincolnshire</b>	Impacts are likely across Central Lincolnshire HMA
<b>District</b>	Impacts are likely to be confined to either West Lindsey, North Kesteven or Lincoln City district boundaries
<b>Settlement</b>	Impacts are likely to be confined to specific settlements in Central Lincolnshire HMA

**Table 23: Timescale criteria**

<b>Time Period</b>	<b>Definition</b>
<b>Short Term (first 5 years of the plan)</b>	These effects are those that will typically occur for specific lengths of time, during certain phases of a development or project. An example of this may be a significant increase in traffic for one year due to the construction of a new development.
<b>Medium Term (5-10 years)</b>	This relates to effects that may last for several years. It could include visual effects of development, which will be screened as landscaping and planting measures become more established. This may also include the economic effects of establishing new small business centres which could require subsidy in order to become fully established.
<b>Long Term (beyond the lifetime of the plan)</b>	These effects are those, which are persistent and are likely to continue for several years, decades or could even be regarded as permanent.

15.5. The assessment will focus on the key issues. In assessing the significance of the potential effects of the plan, the criteria set out in Annex II of the SEA Directive will be taken into account:

- The probability, duration, frequency and reversibility of the effects;
- The cumulative nature of effects;
- The risks to human health or the environment (e.g. due to accidents);
- The magnitude and spatial extent of the effects (geographical scale and size of population likely to be affected);
- The value and vulnerability of the area likely to be affected due to:
  - Special natural characteristics or cultural heritage;
  - Exceeded environmental quality standards or limit values;
  - Intensive land use
- The effects on areas or landscapes which have a recognised national, community or international protection status.

## Appendix 1: IIA Assessment Proforma

Draft Local Plan Policy: <i>Insert policy number and title</i>						
IIA Objectives	Option 1 – Preferred Policy		Option 2 -		Option 3 -	
	Score	Commentary	Score	Commentary	Score	Commentary
1. Housing						
2. Health						
3. Social Equality and Community						
4. Biodiversity and Green Infrastructure						
5. Landscape and Townscape						
6. Built and Historic Environment						
7. Water						
8. Pollution						
9. Land Use and Soils						
10. Waste						
11. Climate Change Effects and Energy						
12. Climate Change Adaptation and Flood Risk						
13. Transport and Accessibility						
14. Employment						
15. Local Economy						
Conclusions:						