URS

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Joint Planning Unit

Pre-Submission North Northamptonshire Joint Core Strategy

Sustainability Appraisal (SA)









SA Report
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INTRODUCTION

1 BACKGROUND

URS is commissioned to undertake Sustainability Appraisal (SA) in support of the North Northamptonshire Joint Core Strategy Review.

SA is a mechanism for considering and communicating the likely effects of a draft plan, and alternatives, in terms of sustainability issues, with a view to avoiding and mitigating adverse effects and maximising the positives. SA of the Local Plan is a legal requirement.[1]

This SA report has been prepared to support the Pre-Submission version of the Joint Core Strategy.

SA EXPLAINED

It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which were prepared in order to transpose into national law the EU Strategic Environmental Assessment (SEA) Directive.[2]

The Regulations require that a report is published for consultation alongside the draft plan that *'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'*.[3] The report must then be taken into account, alongside consultation responses, when finalising the plan.

The Regulations prescribe the information that must be contained within the report, which for the purposes of SA is known as the 'SA Report'. Essentially, there is a need for the SA Report to answer the following four questions:

1. What's the scope of the SA?

   This question must be answered subsequent to a review of the sustainability context and baseline, and consultation with designated environmental authorities.

2. What has Plan-making / SA involved up to this point?

   Preparation of the draft plan must have been informed by at least one earlier plan-making / SA iteration at which point alternatives are assessed.

3. What are the appraisal findings at this current stage?

   I.e. what are the likely significant effects of the draft plan and what changes might be made in order to avoid or mitigate negative effects and enhance the positives.

4. What happens next (including monitoring)?

These questions are derived from Schedule 2 of the Regulations, which present the information to be provided within the report under a list of ten points. Table 1.1 makes the links between the ten Schedule 2 requirements and the four SA questions. Appendix I of this SA Report explains the process of 'making the links' in more detail.

2 STRUCTURE OF THIS SA REPORT

The four SA questions are answered in turn across the four subsequent parts of this Report.

[1] The Town and Country Planning (Local Planning) (England) Regulations 2012 require that an SA Report is published for consultation alongside the 'Proposed Submission' Plan document.
[2] Directive 2001/42/EC
[3] Regulation 12(2)

Table 1.1: Questions that must be answered within the SA Report

SA REPORT QUESTION	SUB-QUESTION	CORRESPONDING REQUIREMENT (THE REPORT MUST INCLUDE…)
What's the scope of the SA?	What's the Plan seeking to achieve?	– An outline of the contents and main objectives of the plan
	What's the sustainability 'context'?	– The relationship of the plan with other relevant plans and programmes – The relevant environmental protection objectives, established at international or national level
	What's the sustainability 'baseline' at the current time?	– The relevant aspects of the current state of the environment – The environmental characteristics of areas likely to be significantly affected
	What's the baseline projection?	– The likely evolution of the current state of the environment without implementation of the plan
	What are the key issues that should be a focus of SA?	– Any existing environmental problems / issues which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance – The likely significant effects on the environment, including on issues such as…
What has Plan-making / SA involved up to this point?		– An outline of the reasons for selecting the **alternatives** dealt with (and thus an explanation of why the alternatives dealt with are 'reasonable') – The likely significant effects on the environment associated with **alternatives** / an outline of the reasons for selecting preferred options / a description of how environmental objectives and considerations are reflected in the draft plan.
What are the appraisal findings at this current stage?		– The likely significant effects on the environment associated with **the draft plan** – The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects of implementing **the draft plan**
What happens next (including monitoring)?		– A description of the measures envisaged concerning monitoring

PART 1: WHAT'S THE SCOPE OF THE SA?

3 INTRODUCTION (TO PART 1)

This is Part 1 of the SA Report, the aim of which is to introduce the reader to the scope of the SA. In particular, and as required by the Regulations[4], this Chapter answers the series of questions below.

- What's the Plan seeking to achieve?
- What's the sustainability 'context'?
- What's the sustainability 'baseline'?
- What are the key issues that should be a focus of SA?

Chapter 4 answers the first question by listing the Local Plan objectives. The other three scoping questions are answered in **Chapters 5 - 9**, with each question answered for the following sustainability 'topics':

Sustainability Theme	Topics covered	
Social progress which recognises the needs of everyone	• Accessibility • Housing • Health • Crime	• Community • Skills • Liveability
Effective protection of the environment	• Biodiversity • Landscape	• Cultural Heritage • Climate Change
Prudent use of natural resources	• Air quality • Water quality/demand • Flooding / Natural Hazards	• Soil and land • Minerals • Energy use • Waste
Maintenance of economic growth and employment	• Employment • Wealth Creation	• Town centres

3.1 Consultation on the scope

The Regulations require that: "When deciding on the scope and level of detail of the information that must be included in the report, the responsible authority shall consult the consultation bodies". In England, the consultation bodies are Natural England, The Environment Agency and English Heritage[5].

An initial Scoping Report for North Northamptonshire SA/SEA was published in February 2009, which was updated and then published again in July 2010. The final SA Scoping Report was consulted upon and then published in September 2011.

The SA scope was reviewed again in November 2014 by URS to ensure that the appraisal of the emerging Joint Core Strategy remained focused on the most relevant sustainability issues. Updated information has been presented in this SA report as necessary in sections 5-9. No significant changes to the sustainability issues / SA Framework were identified as part of this review.

[4] Environmental Assessment of Plans and Programmes Regulations 2004
[5] In-line with Article 6(3).of the SEA Directive, these consultation bodies were selected because *'by reason of their specific environmental responsibilities,[they] are likely to be concerned by the environmental effects of implementing plans and programme'.'*

4 WHAT IS THE PLAN SEEKING TO ACHIEVE?

4.1 What is the plan trying to achieve

The first Core Spatial Strategy (CSS) for North Northamptonshire (Corby, Kettering, East Northamptonshire and Wellingborough was Adopted in June 2008. The CSS sets out the spatial strategy for North Northamptonshire, as well as key strategic planning policies for development In response to a number of factors including the changing economic context, the need to take account of progress and the need to plan forward to 2031 the Joint Planning Unit resolved to undertake a review of the CSS known as the Joint Core Strategy.

The outcome of this review will be the adoption of a new Joint Core Strategy for the North Northamptonshire Planning Authorities. .

As well as setting out the spatial strategy for North Northamptonshire and key policies to guide development, the Joint Core Strategy contains details about the quantity of housing and employment growth that should be planned for across North Northamptonshire and where it should be located, including through the allocation of specific strategic sites.

The key objectives of the relevant Sustainable Communities Strategies in the plan area are as follows:

Being successful through sustainable growth and regeneration – ensuring that physical and social infrastructure will be in place to match growth, improving and protecting countryside and buildings for future generations in addition to regenerating and improving town centres;

Health and Wellbeing – reducing health inequality, increasing life expectancy promoting social inclusion, sport and recreation and providing more access to healthy lifestyle options to improve health and wellbeing;

Education and skills – raising skills levels to ensure that workers have the right skills for a changing economy, addressing the skills shortage for 16-25 year olds through work based learning;

Ensuring economic prosperity – ensuring the availability of relevant and appropriate business skills and training opportunities; providing high quality infrastructure to support and encourage innovation and growth; build on the unique character and location;

Environment – encouraging and promoting environmental protection, improving the environmental and visual quality of the area, managing resources effectively, sustainable transport for all; and

Strong and Safe Communities – reducing and preventing crime as well as the fear of it by tackling violence, anti-social behaviour, re-offending and improving access to services and facilities.

4.2 What's the plan not trying to achieve?

It is important to emphasise that the plan will be strategic in nature. Even the allocation of sites should be considered a strategic undertaking, i.e. a process that defers consideration of some detailed issues in the knowledge that these can be addressed further down the line (through masterplanning and/or the planning application process). The strategic nature of the plan is reflected in the scope of the SA.

5 WHAT'S THE SCOPE OF THE SUSTAINABILITY APPRAISAL?

5.1 Introduction

In essence, scoping is the process of gathering information about the area and factors likely to be affected by the Joint Core Strategy. This information helps to identify what the key issues are and which of these should be the focus of the SA process.

5.1.1 *Contextual review / policy framework*

An important step when seeking to establish the appropriate 'scope' of an SA involves reviewing 'context' messages (e.g. issues, objectives or aspirations) set out within relevant published plans, policies, strategies and initiatives (PPSIs) at international, national and local level. Sustainability context messages are important, as they aid the identification of the 'issues and opportunities' that should be a focus of the SA. Assessments should also take account of the cumulative impacts that could arise as a result of other plans and programmes within and beyond the plan period.

5.1.2 *The current and projected baseline*

Another important step when seeking to establish the 'scope' of an SA involves reviewing the current state for a range of environmental topics. Doing so helps to enable identification of those key environmental topics that should be a particular focus of the appraisal, and also helps to provide 'benchmarks' for the appraisal of significant effects.

Just as it is important for the scope of SA to be informed by an understanding of current baseline conditions, it is also necessary to consider how the baseline conditions might 'evolve' in the future under the no plan / business as usual scenario.

The topics that were the focus of the SA scoping process have been grouped into four broad themes, detailed in **Table 5.1** below. A section on 'Demographics' has also been included as a prelude to the scoping section of the SA as this presents the context for a number of topic areas such as housing, health and communities.

Table 5.1 Sustainability topics

Sustainability Theme	Topics covered	
Social progress which recognises the needs of everyone	• Accessibility • Housing • Health • Crime	• Community • Skills • Liveability
Effective protection of the environment	• Biodiversity • Landscape	• Cultural Heritage • Climate Change
Prudent use of natural resources	• Air quality • Water quality/demand • Flooding/Natural Hazards	• Soil and land • Minerals • Energy use • Waste
Maintenance of economic growth and employment	• Employment • Wealth Creation	• Town centres

Each of these four broad themes forms a chapter in this SA Report, and each is divided further into a series of topics. For each topic, the following information is presented:

- The policy framework / contextual review; and
- The current and projected baseline.

5.2 Demographics

The following section sets out a summary of the key demographic trends for North Northamptonshire.

North Northamptonshire has experienced a higher percentage increase in population than both the regional and national averages over the last ten years.

Table 5.2 *Population Statistics 2003-2013*

Area	2003	2013	Percentage Change
North Northamptonshire	291,000	323,900	**+11.3**
East Midlands	4,255,100	4,598,700	+8.1
Great Britain	57,931,700	62,275,900	+7.5

(Source: ONS mid-year population estimates)

The population projections for North Northamptonshire are also higher than the regional and national averages up until the end of the plan period.

Table 5.2 *Population Projections 2015-2028*

Area	2015	2018	2023	2028	Percentage Change
North Northamptonshire	330,000	338,000	353,000	364,000	**+10.3**
East Midlands	4,652,000	4,741,000	4,885,000	5,025,000	+8.0
Great Britain	64,900,000	66,300,000	68,400,000	70,300,000	+8.3

(Source: ONS population projections)

In line with national trends, the population of North Northamptonshire is ageing. People aged 65+ increased from 14.9% in 2001 to 15.9% in 2011. This cohort grew in absolute terms by +8,020 and increased by 19% from the 2001 position.

An update to the SHMA in the Housing Vision Report (2012) identified a projected population growth of 24% between 2011 and 2031 driven by dramatic growth in those aged 65+ whose numbers are expected to increase by 70% or 36,000 people. It is anticipated there will be a growth of almost 25% in single person households, many of which will consist of older people. This will have implications for service provision and housing needs.

The 2011 Census data provides a breakdown of ethnic groups across North Northamptonshire. This is shown in the table below.

Table: 5.3 *Percentage of population by broad ethnic group 2011*

Area	White	Mixed/ multiple ethnic groups	Asian/ Asian British	Black/ African/ Caribbean/ Black British	Other ethnic group
	%	%	%	%	%
North Northamptonshire	93.3	1.7	3	1.8	0.3
East Midlands	89.3	1.9	6.5	1.8	0.6
England	85.4	2.3	7.8	3.5	1.0

(Source: Office for National Statistics (ONS) 2011 Census)

Table 5.4 shows the percentage change by broad ethnic group between the 2001 and 2011 Census in North Northamptonshire. The change in North Northamptonshire identifies the need to plan for a diverse range of communities. Over the ten years from the 2001 and 2011 Census, the largest change contributed by a non-white ethnicity in North Northamptonshire was in Wellingborough where there was an increase of 1,300 (44.8%) by Asian/Asian British people.

Table 5.4 *Population percentage change by broad ethnic group 2001-2011*

Area	Population increase	Of those which are… White	Mixed/ multiple ethnic groups	Asian/ Asian British	Black/ African/ Caribbean/ Black British	Other ethnic group
		%	%	%	%	%
Corby	8,100	76.5	6.2	6.2	11.1	0
East Northamptonshire	10,200	84.3	5.9	7.8	3.9	-1.9
Kettering	11,700	73.5	6	13.7	6	0
Wellingborough	2,900	0	27.6	40.8	31	3.4
North Northamptonshire	32,900	71	7.9	12.8	8.8	0.3
East Midlands	361,000	40.4	11.9	34.5	11.6	1.5

(Source: ONS 2001 and 2011 Census). Percentages may not add up to 100 due to rounding.

6 SOCIAL PROGRESS WHICH RECOGNISES THE NEEDS OF EVERYONE

6.1 Introduction

This section sets out the relevant policy framework and baseline position for the following sustainability factors that have been grouped under the theme of 'social progress which recognises the needs of everyone':

- Accessibility:
- Housing;
- Health;
- Crime;
- Community;
- Skills; *and*
- Liveability.

6.1 Accessibility

6.1.1 *Contextual review*

The **National Planning Policy Framework** (**NPPF)** states that the transport system should be balanced 'in favour of sustainable transport', with developments to be located and designed to facilitate these modes of travel, in order to minimise journey lengths for employment, shopping, leisure and other activities. Planning policies should also aim for 'a balance of land uses' and wherever practical, key facilities should be located within walking distance of most properties.

Higher levels of walking and cycling could reduce congestion, improve local environmental quality, improve personal health and reduce transport-related CO_2 emissions[6]. Plans should ensure that local, strategic policies support and encourage both walking and cycling[7].

Local plans should also encourage transport solutions that support reductions in greenhouse gas emissions and reduce congestion; notably through concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport.

The **Northamptonshire Transport Strategy for Growth** encourages the use of public transport, walking and cycling, and supports the development of town centres which provide easily accessible jobs and facilities. The Strategy seeks to support the provision of necessary linkages and connectivity to allow for economic growth, and identifies key improvement schemes to help achieve this. The Strategy also emphasises the importance of sustainable modes of transport to help address the issues of climate change as well as supporting the growth agenda[8].

6.1.2 *Baseline position*

North Northamptonshire incorporates the boroughs and districts of East Northamptonshire (Population 80,000), Corby (Population 64,200), Kettering (Population 95,700) and Wellingborough (Population 76,000). Cumulatively the area encompasses 986 square

[6] Lancaster University, University of Leeds & Oxford Brookes University (2011) Understanding Walking and Cycling: Summary of Key Findings and Recommendations [online] available at: http://www.its.leeds.ac.uk/fileadmin/user_upload/UWCReportSept2011.pdf
[7] National Institute for Health and Care Excellence (2012) Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation, Public Health Guidance PH41[online] available at: http://guidance.nice.org.uk/PH41
[8] Northampton County Council (2007) Northamptonshire Transport Strategy for Growth [online] available at: http://www.northamptonshire.gov.uk/en/councilservices/Transport/TP/Documents/PDF%20Documents/TSfG%20Strategy%20Document%20September%202007%20(pdf%20format%201730kb).pdf

kilometres and has a population of 315,900 from mid-2013 estimates[9]. East Northamptonshire (510 square kilometres) is the largest district in the area.

North Northamptonshire was previously identified in National and Regional policy as part of the Milton Keynes and South Midlands (MKSM) Growth Area. This was one of four areas identified to help accommodate the economic success of London and the wider South East by delivering major growth in well-designed communities, supported by substantial investment in infrastructure and services. This designation reflected the area's proximity and links to London and the South East, its economic potential (including its close relationship to the Oxford to Cambridge Arc) and the limited environmental/policy constraints compared much of the country (no designated Areas of Outstanding Natural Beauty or Green Belt).It also recognised the opportunity to use growth to support the regeneration of existing communities, in particular Corby.

North Northamptonshire is located on key strategic transport infrastructure in the form of the A14 'Trans European Route' providing linkages to the M1 and M6 as well as to the East Coast ports, other roads, including the A6, A605, A45 and A43 provide good transport linkages. East Midlands Trains with stations at Kettering and Wellingborough provide links south to London (average journey time from Kettering to St Pancreas 64 minutes; Wellingborough 55 minutes with onward Eurostar trains) and north to the Three Cities of Nottingham, Leicester and Derby (average journey time from Kettering to Leicester 26 minutes; Wellingborough 33 minutes) and beyond. There are several international airports within 70 miles of North Northamptonshire.

6.2 Housing

6.2.1 *Contextual review*

The NPPF states that local planning authorities should have a clear understanding of housing needs in their area. They should prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period.

The **NPPF** states that, in rural areas, when exercising the duty to cooperate with neighbouring authorities, local planning authorities should be responsive to local circumstances and plan housing development to reflect local needs, particularly for affordable housing, including through rural exception sites where appropriate. Authorities should consider whether allowing some market housing would facilitate the provision of significant additional affordable housing to meet local needs.

Laying the Foundations (2011)[10] is the UK Governments Housing Strategy for England which sets out the case for a significantly increased supply of housing that offers flexibility, affordability and quality.

6.2.2 *Baseline position*

Between 2001 and 13, 18,939 net additional dwellings have been built across North Northamptonshire. Corby has had the most new housing with 4,005 dwellings. Housing delivery in the towns of Kettering and Wellingborough has been lower, albeit broadly similar, with 2,341 and 2,230 dwellings built respectively. 45% of all new housing between 2001 and 2013 has been directed to the 2008 CSS Growth Towns (Corby, Kettering and Wellingborough), followed by 35% at the Smaller Towns and Rural Service Centres and 20% in the Rural Areas.

[9] ONS Nomis Statistics (2014) [online] available at: www.nomisweb.co.uk
[10] HM Department for Communities and the Local Environment (2011) Laying the Foundations: A Housing Strategy for England.

The rural hinterlands of Corby and Kettering contain two large development areas that have been under construction for a number of years and which have contributed significantly to rural housing provision to 2013 (the new villages of Little Stanion in Corby Borough and Mawsley in Kettering Borough).

Over 2012/2013 completions across North Northamptonshire totalled 1,198 dwellings. This figure is comprised of 483 net completions in Corby Borough, 248 in East Northamptonshire, 351 in Kettering Borough and 116 across the Borough of Wellingborough. Compared to house building rates in 2011/12, this represents an increase of 97 dwellings overall (was 1,101 dwellings). At a local authority level, the biggest annual change has been recorded in East Northamptonshire, where a 35% increase in new housing has been recorded from 2011/12 figures[11].

6.3 Health

6.3.1 *Contextual review*

The **NPPF** identifies the importance of the social role of the planning system, which is defined as '*supporting vibrant and healthy communities'*, with a 'core planning principle' being to '*take account of and support local strategies to improve health, social and cultural wellbeing for all*'. The NPPF also outlines that high quality open spaces should be protected or their loss mitigated, unless a lack of need is established. Planning policies should be based on robust and up to date assessments of the needs for open space, sports and recreation facilities and opportunities for new provision.

Fair Society, Healthy Lives ('The Marmot Review')[12] investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that that there is: *'overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities'.*

To ensure that the built environment promotes health and reduces inequalities for all local populations there is a need to:

- Fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality;
- Prioritise policies and interventions that both reduce health inequalities and mitigate climate change by improving active travel; good quality open and green spaces; the quality of food in local areas; and the energy efficiency of housing; and
- Support developments which provides high quality social infrastructure, including education, skills and sports facilities.

The Public Health Outcomes Framework for England 2013-2016 builds upon these principles and seeks to achieve two key outcomes:

- *Increased healthy life expectancy* - Taking account of health quality as well as length of life.
- Reduced differences in life expectancy and healthy life expectancy between communities - Through greater improvements in more disadvantaged communities.

[11] North Northampton Joint Planning Unit (2014) Annual Monitoring Report 2012/13 [online] available at: http://www.nnjpu.org.uk/docs/AMR%202012-13.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=AMR%202012-13.pdf
[12] The Marmot Review (2011) The Marmot Review: Implications for Spatial Planning [online] available at: http://www.nice.org.uk/nicemedia/live/12111/53895/53895.pdf

6.3.2 *Baseline position*

Kettering has the only General Hospital in North Northamptonshire, although Wellingborough (Isebrook) and Rushden (Memorial) also have local hospitals, which provide some services. The General Hospital serves a wide catchment area and is a key facility for the neighbouring growth towns of Wellingborough and Corby, an example of the inter-relationships between these settlements. The larger towns and rural areas close to the main urban areas have good access to health facilities. Villages to the north of North Northamptonshire look increasingly towards Stamford and Peterborough for their needs.

Corby has the lowest life expectancy for people born between 2009 and 2011 - 76.2 years for males and 80.3 for females. In contrast, East Northamptonshire has the lowest percentage of residents with a long-term illness and highest percentage who describe their health as good. Life expectancy is 79.7 years for males and 82.6 for females born between 2009 and 2011[13].

6.4 Crime

6.4.1 *Contextual review*

According to the **NPPF,** planning policies and decisions should aim to promote safe and accessible communities where crime and disorder, and fear of crime, do not undermine quality of life or community cohesion.

Creating strong and safe communities is a key priority within the **Sustainable Communities Strategy for Northamptonshire**[14].

6.4.2 *Baseline position*

The level of crime within communities is an issue for concern for all people in North Northamptonshire in both rural and urban locations. The rates of crime in North Northamptonshire are lower than the national and county average, although there are hotspots which are generally concentrated in towns and can be linked to the pockets of deprivation that exist in Corby, Kettering and Wellingborough. Although rural areas experience less crime overall, it is no less important. Crimes of different types occur in both rural and urban areas. Rural areas provide different types of targets, such as farms for burglary.

In Corby, the overall crime rate decreased from 61.7 crimes per thousand in 2009/10 to 53.5 in 2011/12. In Wellingborough, similarly the overall crime rate decreased from 54.2 crimes per thousand to 42.2 over the same period. In Kettering, the overall crime rate decreased from 45.4 crimes per thousand in 2009/10 to 37.8 in 2011/12 and in East Northamptonshire, the overall crime rate decreased from 33.8 crimes per thousand in 2009/10 to 29.3 in 2011/12. The most prominent offences across all authorities during this time were violence offences and criminal damage[15].

[13] ONS (2013) Local Profiles Demography [online] available at: http://neighbourhood.statistics.gov.uk/dissemination/Info.do?m=0&s=1373450973322&enc=1&page=analysisandguidance/analysisarticles/local-authority-profiles.htm&nsjs=true&nsck=false&nssvg=false&nswid=1276

[14] Northamptonshire Partnership (2009) [online] available at: http://www.northamptonshireobservatory.org.uk/docs/docSCS_brochure_19jan09090121093550.pdf

[15] ONS (2013) Local Profiles Inclusion [online] available at: http://neighbourhood.statistics.gov.uk/dissemination/Info.do?m=0&s=1373450973322&enc=1&page=analysisandguidance/analysisarticles/local-authority-profiles.htm&nsjs=true&nsck=false&nssvg=false&nswid=1276

6.5 Community

6.5.1 *Contextual review*

The Public Health Outcomes Framework for England 2013-2016 seeks to reduce differences in life expectancy and healthy life expectancy between communities; particularly those where deprivation is an issue.

The briefing paper**, The Rural Big Society** (2011)[16] makes a series of recommendations for action to tackle rural disadvantage including:

- Making better use of Church of England assets to better support rural communities;
- Developing models of community energy generation suitable for rural areas;
- Developing rural access to next-generation broadband; and
- Capturing a higher amount of revenue from CIL and New Homes Bonus for rural communities.

The National Rural Proofing Guidelines[17] set out some important principles and actions for ensuring that rural areas are not disadvantaged including:

- Looking for alternative ways of delivering services in rural areas:
- Reducing the need to travel;
- Better integration and improvement of transport links;
- Make use of rural networks and meeting points such as post offices, parish halls, etc;
- Address the needs of smaller businesses;
- Use small area based data to identify issues and impacts; and
- Engage with rural stakeholders to identify the impact of proposals.

The **Sustainable Communities Strategy for Northamptonshire** sets out what must be done to meet long term issues and longer term needs for communities. It outlines how communities in Northamptonshire can work together and make lasting improvements for the people of Northamptonshire[18].

6.5.2 *Baseline position*

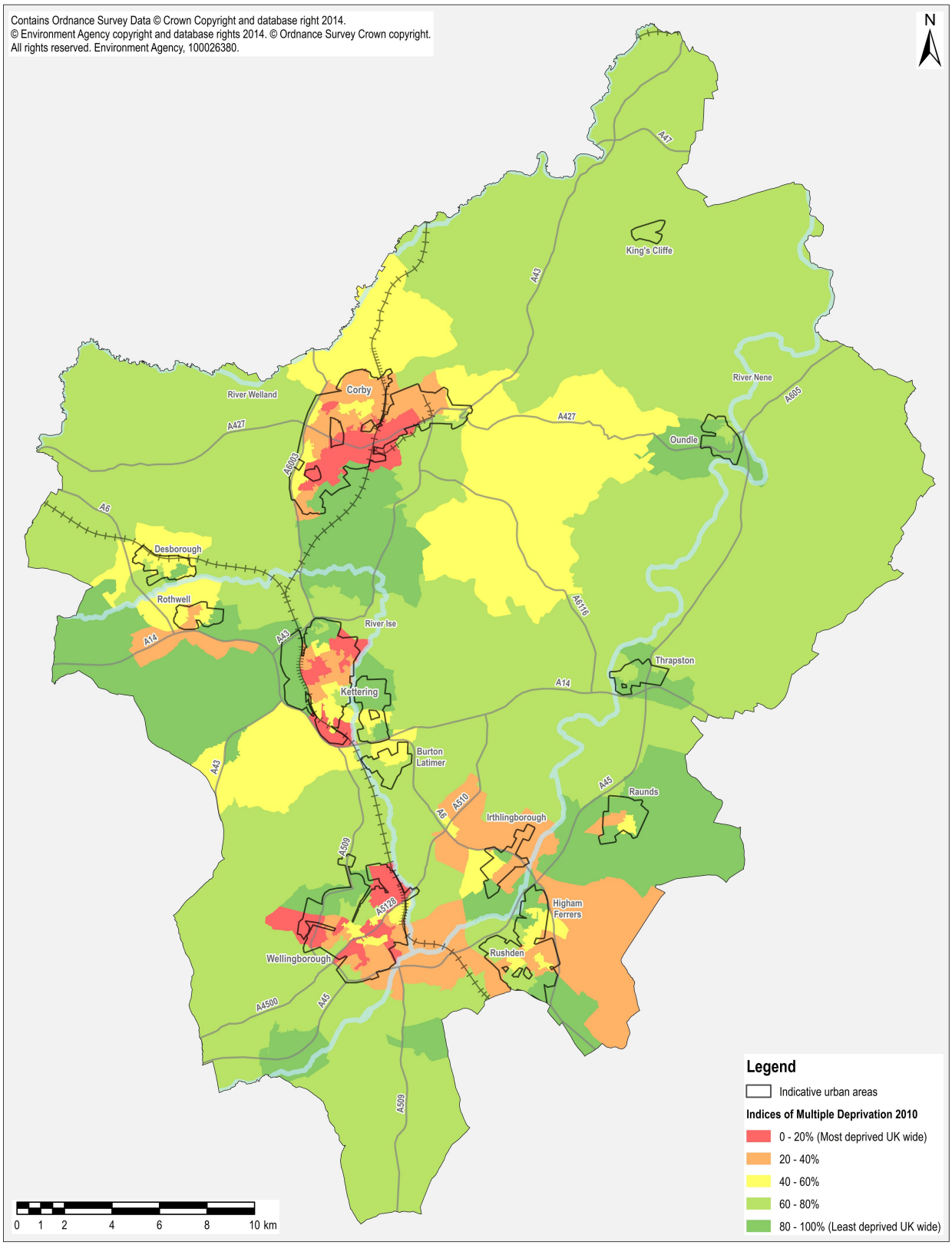
The baseline for community is covered by The Indices of Deprivation 2010. They provide a measure of deprivation in small areas across England. These are based on the concept that deprivation consists of more than just poverty. Poverty is not having enough money to get by on whereas deprivation refers to a general lack of resources and opportunities. The data is acquired by number of indices to give an overall score for the relative level of multiple deprivation experienced in every neighbourhood in England.

In North Northamptonshire, East Northamptonshire is the least deprived district (ranked 225 out of 326 nationally) and Corby is the most deprived district (ranked 57 out of 326). In general terms, using this rank, Corby falls within the top 20% of the most deprived Local Authority areas in England. In direct contrast, East Northamptonshire is one of the least deprived local authorities. Kettering is an average authority area, occupying nearly the exact mid-point of all English local authorities. Wellingborough is similarly ranked to Kettering, albeit it falls in the lowest 50% of all local authority areas[19]. The results are shown in Figure 6.1 below.

In North Northamptonshire there is currently an emphasis on securing investment and renewal to transform run-down areas, including parts of the town centres, however small pockets of deprivation also exist in rural areas where some people encounter difficulties in accessing jobs, services and facilities, due in part to the limited availability of public transport.

[16] The Rural Development Commission (2011) The Rural Big Society.
[17] DEFRA (2013) National Rural Proofing Guidelines v July 2013 [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200093/rural-proofing-pamphlet.pdf
[18] Northamptonshire Partnership (2009) [online] available at: http://www.northamptonshireobservatory.org.uk/docs/docSCS_brochure_19jan09090121093550.pdf
[19] NNJPU (2011) Annual Monitoring Report 2011 [online] available at http://www.nnjpu.org.uk/publications/docdetail.asp?docid=1237

Figure 6.1: Indices of Multiple Deprivation, 2010



6.6 Skills

6.6.1 *Contextual review*

The **NPPF** states local planning authorities should take a proactive, positive and collaborative approach to meeting school place requirements, and to develop places that will widen choice in education. This includes giving great weight to the need to create, expand or alter schools and work with schools promoters to identify and resolve key planning issues before applications are submitted.

6.6.2 *Baseline position*

The authority with the highest percentage of NVQ4 qualifications (highest) and above is East Northamptonshire with 31.6% of the population holding an NVQ4 or higher. The lowest scoring is Corby only 19.8% of people holding an NVQ4 or above. The East Midlands has 30.1% holding an NVQ4 or above and for Britain 35.2%, Kettering and East Northamptonshire are above the regional average, however none of the authorities are above the British figure. Corby has the most people without qualifications, with 17.4% of the population holding none. Kettering scores best in North Northamptonshire with only 8.8% of people having no qualifications. This is better than the regional East Midlands total (10.3%) and the British total (9.3%)[20].

This is reflected in the disparity of jobs people have in North Northamptonshire. This is looked at in more detail in section 9.2 on Employment and Wealth Creation.

6.7 Liveability

6.7.1 *Contextual review*

The **NPPF** recognises that access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.

Natural England's Accessible Natural Green Space Standards[21] recommend that people living in towns and cities should have access to natural green space of at least 2ha within 300m (or 5 minute walk) from home.

6.7.2 *Baseline position*

Green Infrastructure (GI) is a strategically planned and delivered network of high quality green spaces and other environmental features. In North Northamptonshire GI networks have been identified at both strategic (i.e. sub-regional) and local scales. The sub-regional network consists of a series of interlinked corridors which broadly follow the main river valleys and tributaries and extend beyond the boundary of North Northamptonshire. This is complemented by 24 local GI corridors, which cover a variety of land uses and provide opportunities for projects and investment at a smaller, more local scale.

The six sub-regional corridors include:

1. Nene Valley	2. Ise Valley	3. Jurassic Way
4. Willow Brook	5. Harpers Brook	6. Elton Park.

There are currently no accessible 500ha sites in North Northamptonshire – an Access to Natural Greenspace Standard (ANGSt). This reflects a key greenspace deficit for the area. Sites larger than 100ha are mainly restricted to open access woodlands of Rockingham Forest and wetland areas in the Nene Valley[22].

[20] ONS Nomis Statistics (2014) [online] available at: www.nomisweb.co.uk
[21] Natural England (2009) Green Infrastructure Guidance [online] available at: http://publications.naturalengland.org.uk/publication/35033
[22] NNJPU (2014) North Northamptonshire Green Infrastructure Delivery Plan [online] available at: www.kettering.gov.uk/download/meetings/id/.../item_8_-_appendix_1

7 EFFECTIVE PROTECTION OF THE ENVIRONMENT

7.1 Introduction

This section sets out the relevant policy framework and baseline position for the following sustainability factors that have been grouped under the theme of 'Effective Protection of the Environment:

- Biodiversity:
- Landscape:
- Cultural Heritage:
- Climate Change

7.2 Biodiversity

7.2.1 *Contextual review*

Sites of European status are protected under the **Birds (79/409/EEC as amended) and Habitats (92/43/EEC) Directives**, while national legislation protects Sites of Special Scientific Interest (SSSI) and listed species.

The European Commission Guidance on **Integrating Climate Change and Biodiversity into Strategic Environmental Assessmen**t (2013) suggests that an SEA should focus on ensuring 'no-net-loss of biodiversity' before considering mitigation and compensation. The assessment should also take account of 'ecosystem services' and the links between natural environment and economy.

The **Natural Environment White Paper** states that there is a need to halt the overall decline in biodiversity and the degradation of ecosystem services; and restore them in so far as feasible and seek to deliver net gains in biodiversity where possible[23].

The **NPPF** also says that Local Plans should support healthy well-functioning ecosystems, encourage the 'preservation, restoration and re-creation of priority habitats, ecological networks' and promote the 'protection and recovery of priority species'.

Biodiversity 2020 is the Government's Strategy for England's wildlife and ecosystem services. It encapsulates the aims of the EU Biodiversity Strategy and seeks to achieve the following outcomes by 2020:

- More, bigger and less fragmented areas for wildlife. No net loss of priority habitat and a net increase in priority habitats.
- Restoring at least 15% of degraded ecosystems as a contribution to climate change mitigation and adaptation.
- An overall improvement in the status of species and prevention of further human-induced extinctions.
- Improved engagement in biodiversity issues.

The Wildlife Trust guidance document **A Living Landscape** says that Local plans should adopt a 'landscape approach' to protecting and enhancing biodiversity. This focuses on the conservation of biodiversity over large areas of land (i.e. at the landscape scale) where habitat patches that are now fragmented would once have functioned more as an interconnected whole[24].

According to **the NPPF**, Local Authorities should set out their strategic approach to Green Infrastructure in their Local Plans, planning positively for the creation, protection, enhancement and management of biodiversity and green infrastructure.

[23] DEFRA (2012) The Natural Choice: securing the value of nature (Natural Environment White Paper) [online] available at: http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf

[24] The Wildlife Trusts (2010) A Living Landscape: play your part in nature's recovery [online] available at: http://www.wildlifetrusts.org/alivinglandscape

Regionally there is the **Biodiversity Strategy for the East Midlands**. The aim of this strategy is to promote the creation of the policy, strategic and communications framework within which conservation and enhancement of biodiversity can best be achieved so the vision can be realised[25].

The **North Northamptonshire Biodiversity SPD** explains how biodiversity shall be incorporated into the development process to ensure that the requirements of legislation and policy are met. It is designed to be used by those considering and applying for planning permission but should also be considered as a key tool by those developing broader planning policy, site allocations as well as the development plan process more widely[26].

7.2.2 *Baseline position*

The wildlife of North Northamptonshire comprises those plants and animals that have managed to survive recent landscape changes and development; however Northamptonshire as a whole has lost more plant species in the last 50 years than any other county in England.

Changing agricultural, forestry and river-management practices, urban expansion, road development, mineral extraction, pollution, water abstraction and climate change have had a dramatic effect on the countryside. There has been a steady decline in the areas that can be defined as semi-natural habitats of wildlife importance. Those areas that have survived are often small and have a fragmented distribution. The following key statistics exemplify the most recent changes across Northamptonshire:

- Since 1947 over 64% of the Ancient Woodlands have been lost;
- Between the mid-1980s and the mid-1990s around 10% of the surviving wildlife-rich meadows have disappeared;
- Since 1900 more than 99% of semi-natural neutral grassland has been destroyed;94 species of plant, 8 species of lichen, 3 species of mammal, 14 species of bird, 16 species of butterfly, 13 species of moth and 3 species of grasshopper became extinct.

The Northamptonshire Environmental Character and Green Infrastructure Study (River Nene Regional Park website) identifies the designated nature conservation sites across North Northamptonshire. These include Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Local Nature Reserves (LNRs), and County Wildlife Sites (CWS). Regionally Important Geological/Geomorphological Sites (RIGS) are also included. These are broadly concentrated along the Rivers Nene and Ise and across the Rockingham Forest Character Area. Just over 2.1% of North Northamptonshire (2008) is designated as SSSI - an increase from 0.98% in 2005. This is due to the designation of the Upper Nene Valley gravel pits which stretches across the southern part of North Northamptonshire. This is a lower figure than the average area per English county of 6.8% (2005).

The Government's Public Service Agreement (PSA) target is to have 95% of the SSSI area in favourable or recovering figure by 2010. In North Northamptonshire the figure is 90% (2005). The condition of many of the CWS is unknown as many sites have not been surveyed for 10 years. A resurvey of these sites is on-going.

The Biodiversity Action Plan for Northamptonshire (BAP) (2008) identifies a range of priority habitats and species in the county, subdividing them by broad habitat types, which collectively comprise the biodiversity resource.

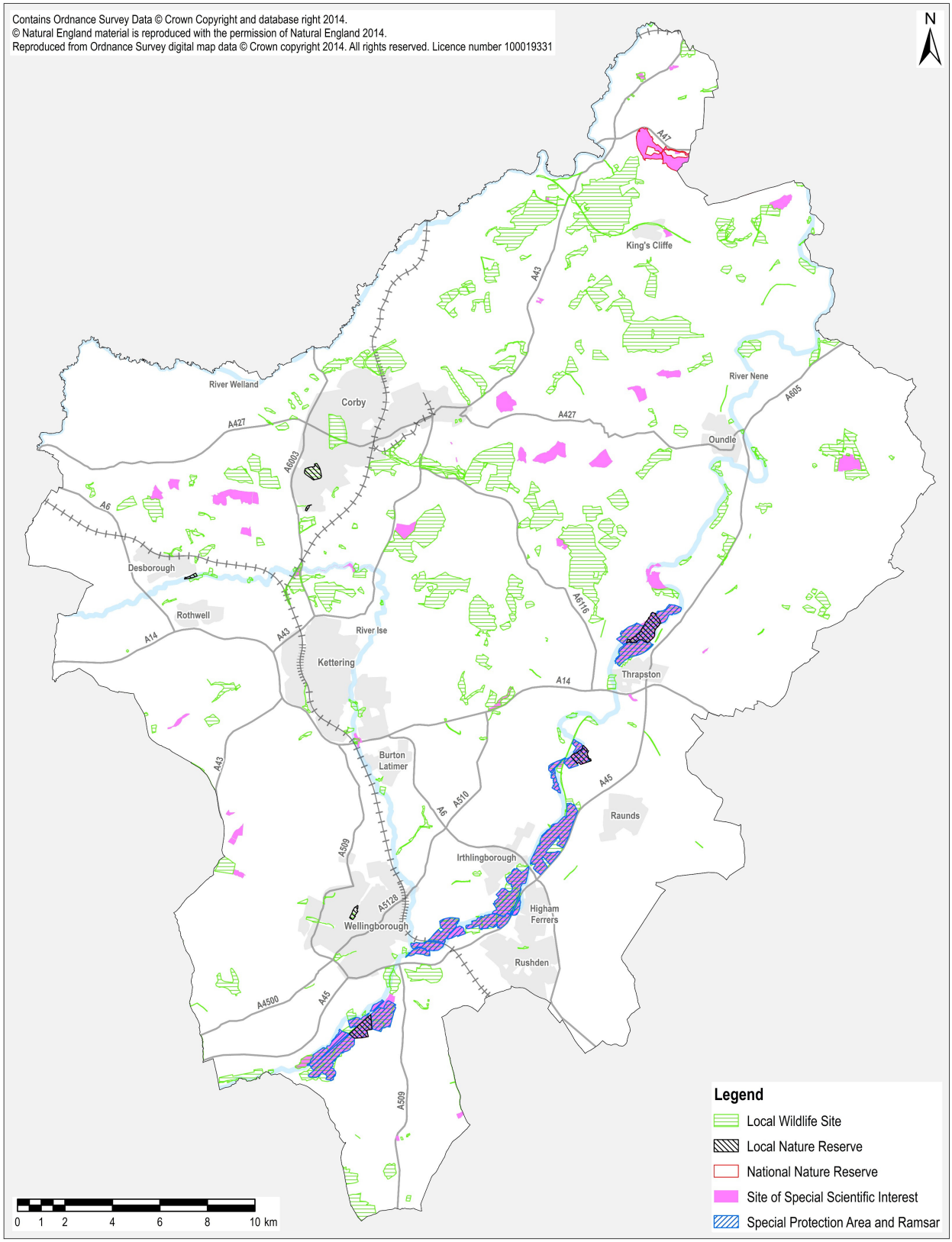
[25] Biodiversity Partnership (2006) A Biodiversity Strategy for the East Midlands [online] available at: http://www.embiodiversity.org.uk/files/documents/documents/emrbs-may2006.pdf
[26] North Northamptonshire Council (2011) Biodiversity SPD [online] available at: http://www.east-northamptonshire.gov.uk/downloads/file/3177/north_northamptonshire_biodiversity_spd

- Ancient and/or Species Rich Hedgerows
- Open Mosaic Habitats on Previously Developed Land
- Eutrophic Standing Water and Ponds
- Floodplain Grazing Marsh
- Reedbed
- Lowland Calcareous Grassland
- Rivers
- Lowland Fens
- Traditional Orchards
- Lowland Meadows
- Wet Woodland
- Lowland Mixed Deciduous
- Woodland
- Wood-Pasture and Parkland
- Otter
- Water Vole

The Upper Nene Valley Gravel Pits (extending for around 35 kilometres and covering around 1,370) hectares is designated as a Special Protection Area (SPA) for its international importance as a wetland habitat for non-breeding winter birds under EC Directive on the conservation of Wild Birds (79/409/EEC). The site is also protected under the Ramsar convention as a wetland of international importance and is designated as a SSSI.

Figure 7.1 illustrates the designated wildlife habitats throughout North Northamptonshire.

Figure 7.1: Designated wildlife areas



7.3 Landscape

7.3.1 *Contextual review*

The **European Landscape Convention** states that the planning system should protect and enhance valued landscapes. Particular weight is given to 'conserving landscape and scenic beauty'. Local Authorities should adopt policies and measures for the protection, management and planning of all landscapes, whether outstanding or ordinary, that determine the quality of people's living environment[27].

In the **NPPF**, Authorities are encouraged to contribute to and enhance the natural and local environment by 'protecting and enhancing valued landscapes, geological conservation interests and soils'[28].

The **Northamptonshire Environmental Character** provides a framework for more detailed character assessments that give an objective description of the North Northamptonshire landscape, as well as a series of strategies and guidelines to help direct future landscape character, the biodiversity character and the historic character of North Northamptonshire and recognises the local distinctiveness of all areas and negates the need to designate Special Landscape Areas or other local landscape designations.[29]

7.3.2 *Baseline position*

The countryside is a diverse mix of landscapes, each with its own distinctive visual, historic and ecological character. The northern and southern boundaries of North Northamptonshire are framed by river valleys; the Welland and the Nene. The Nene changes in character as it moves through the area, from a more urbanised west and a concentration of sand and gravel extraction, to a more tranquil rural north. Much of the northern half of the area lies within the Rockingham Forest; over 200 square miles of countryside in North Northamptonshire and Peterborough, recognised as a distinctive Countryside Character and Natural area. As with other parts of the East Midlands, North Northamptonshire has a low biodiversity offer with habitats fragmented or degraded as a result of settlement expansion, infrastructure developments and agriculture. However, the upper Nene Valley Gravel Pits in East Northamptonshire is designated as a Special Protection Area (SPA) and Ramsar Site due to its importance for migratory birds. The various Country Parks and sites of historic importance such as Rockingham Castle, Boughton House and Deene Park represent valuable leisure, tourism and cultural resources.

The Northamptonshire Environmental Character and Green Infrastructure Study (River Nene Regional Park website) 2006 provides a suite of core environmental datasets that will inform, develop and enhance sustainable planning and management in North Northamptonshire, helping to ensure that development is related to its cultural, natural and visual landscape character.

The Environmental Character Assessment (ECA) represents the top tier of a series of character assessments that have been developed as part of the Northamptonshire ECS. This provides a framework for more detailed character assessments that give an objective description of the North Northamptonshire landscape, as well as a series of strategies and guidelines to help direct future landscape change and landscape management. The Study incorporates the current landscape character, the biodiversity character and the historic character of North Northamptonshire and recognises the local distinctiveness of all areas and negates the need to designate Special Landscape Areas or other local landscape designations.

[27] Council of Europe (2000) The European Landscape Convention [online] available at: http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm
[28] DCLG (2012) National Planning Policy Framework [online] available at: http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf
[29] RNRP (2006) Northamptonshire Environmental Character [online] available at: http://www.rnrpenvironmentalcharacter.org.uk/

An important feature of the character assessment process is that it is objective; no judgement is made of a particular landscape's value or quality. However, attention is given to identifying characteristics that are distinctive, rare or special. The project refers and builds on the Countryside Character and Natural Area approach developed by the then Countryside Agency and English Nature. These areas and a landscape assessment can be found at Northamptonshire Environmental Character and Green Infrastructure Study (River Nene Regional Park website).

7.4 Cultural Heritage

7.4.1 *Contextual review*

The **NPPF** defines heritage assets as "*a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest*". Some heritage assets are designated under legislation such as Scheduled Monuments, Listed Buildings, Registered Parks and Gardens and Conservation Areas. Some undesignated heritage assets may also be recognised by Local Planning Authorities as having a degree of local interest or significance.

At the national level, the **Government White Paper: Heritage Protection for the 21st Century** (2007)[30] seeks to put the historic environment at the heart of the planning system.

The NPPF says that Authorities should set out in their local plan a 'positive strategy' for the 'conservation and enjoyment of the historic environment', including those heritage assets that are most at risk. Assets should be recognised as being an 'irreplaceable resource' that should be conserved in a 'manner appropriate to their significance', taking account of 'the wider social, cultural, economic and environmental benefits' that conservation can bring, whilst also recognising the positive contribution new development can make to local character and distinctiveness.

7.4.2 *Baseline position*

Figure 7.2 illustrates the designated heritage assets across North Northamptonshire.

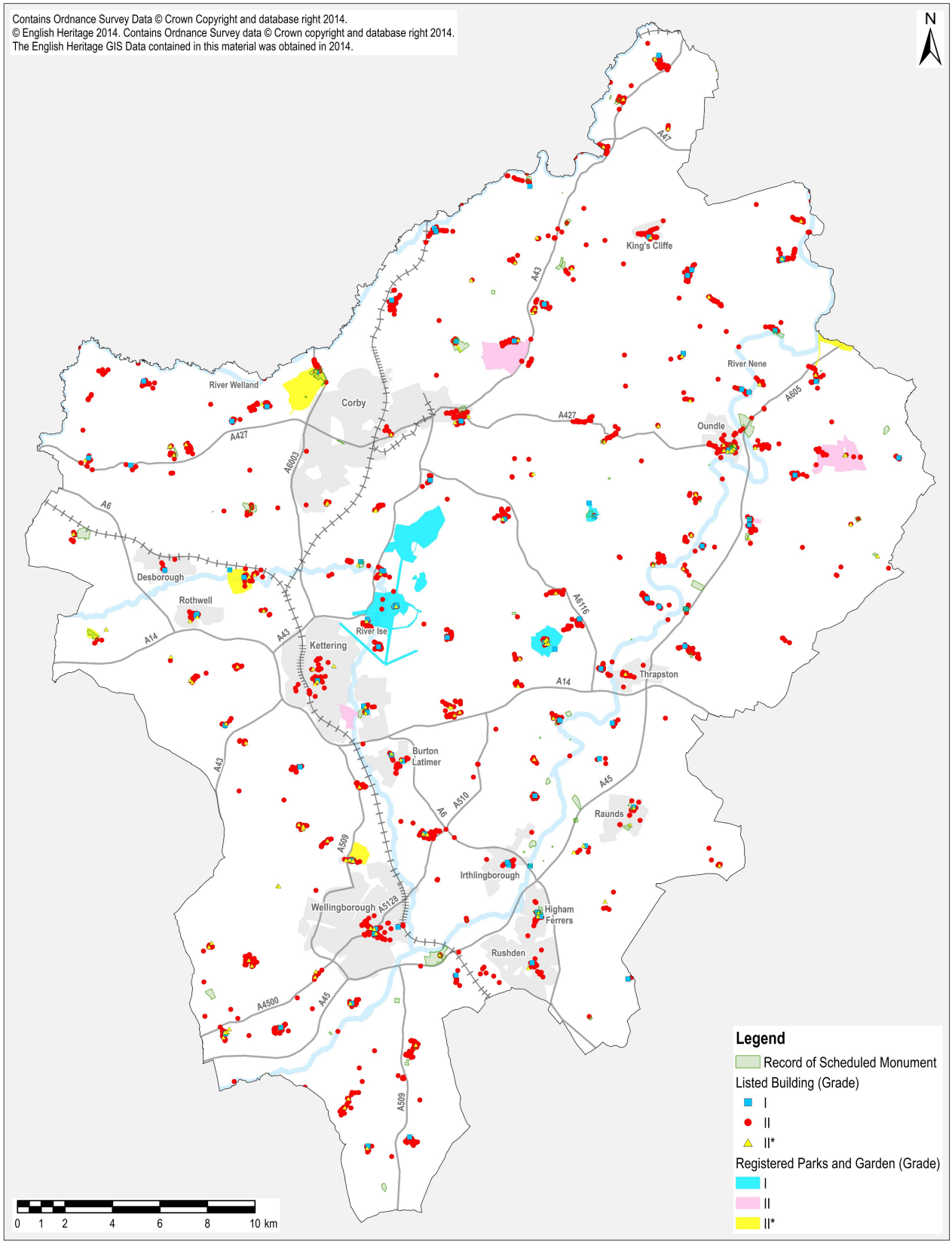
Important cultural heritage assets include; Rockingham Castle, Kirby Hall, Great Harrowden Hall, Boughton House, Apethorpe Hall, Lyveden New Build, Lilford Hall, Kirby Hall, Deene Park, and Fotheringhay Church and Castle. Boughton Park and Drayton Park are Registered Parks and Gardens (Grade 1) of strategic significance.

Rockingham Forest is a major historic asset and the subject of on-going research by the Rockingham Forest Trust. This area of former hunting forest has its origins in the Anglo Saxon period. There are also a large number of historic settlements in the area, such as Oundle, Higham Ferrers and the villages, with high quality townscape.

Iron working, with its origins in the Roman period and continuing to modern times, is a noteworthy feature of the area's heritage and culture. Modern industrial heritage is also critical to the character of the locality and is often undervalued.

[30] https://www.gov.uk/government/publications/heritage-protection-for-the-21st-century-white-paper

Figure 7.2: Designated heritage assets in North Northamptonshire



7.5 Climate Change

7.5.1 *Contextual review*

According to the **NPPF**, Local Plans should take account of the effects of climate change in the long term, taking into account factors such as flood risk, water supply and changes to biodiversity and landscape.

The **NPPF** also states that Planning authorities are encouraged to 'adopt proactive strategies' to adaptation. New developments should be planned so that they avoid increased vulnerability to climate change impacts. Where new development is at risk to such impacts, this should be managed through adaptation measures including the planning of green infrastructure. Development should also be directed away from areas at highest risk from flooding, and should 'not to be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding'. Where development is necessary, it should be made safe without increasing levels of flood risk elsewhere.

The National Adaptation Programme (2013)[31] highlights the importance of adaptation to help the UK become more resilient to climate change. It also reiterates the need for Local Plans to be proactive in adaptation as set out in the NPPF.

The **Northamptonshire Climate Change Strategy 2010 – 2014** sets out a framework for action by members of the Northamptonshire Partnership to:

1. Raise awareness of the issue of Climate Change and its impact on Northamptonshire;
2. Reduce greenhouse gas emissions across the county; and
3. Plan for and adapt to the predicted impacts of Climate Change[32].

7.5.2 *Baseline position*

The UK is facing a future of unprecedented change - greenhouse gas emissions are likely to cause the climate to warm faster than at any time in the last 10,000 years. Cutting back on emissions now and in the future will go some way to prevent the worst effects, but our past emissions mean that some degree of change is now inevitable. This change may be exacerbated by the growth proposed. Table 7.1 below shows the CO_2 emissions in North Northamptonshire.

Table 7.1 Estimated per capita emissions of CO_2

	2009	2010	2011
	Tonnes per head (CO_2)	Tonnes per head (CO_2)	Tonnes per head (CO_2)
Corby	9.8	10.6	9.2
Wellingborough	7.2	7.3	6.5
Kettering	7.5	8.0	7.5
East Northamptonshire	6.7	6.8	6.3
East Midlands	7.7	8.0	7.4
England	7.1	7.3	6.7

Source: Department of Energy and Climate Change

[31] DEFRA (2013) The National Adaptation Programme: Making the Country Resilient to a Changing Climate [online] available at: www.gov.uk/defra

[32] Northamptonshire Partnership (2010) Northamptonshire Climate Change Strategy 2010 – 2014 [online] available at: http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=10&cad=rja&uact=8&ved=0CGYQFjAJ&url=http%3A%2F%2Fwww.daventrydc.gov.uk%2FEasySiteWeb%2FGatewayLink.aspx%3Falld%3D25344&ei=aHNjVOXQPKfIsQTX0ICQBw&usg=AFQjCNFm71XXPrC5RRLqGITqElfm2uYaWg&bvm=bv.79189006,d.cWc

8 PRUDENT USE OF NATURAL RESOURCES

8.1 Introduction

This section sets out the relevant policy framework and baseline position for the following sustainability factors that have been grouped under the theme of 'prudent use of natural resources':

- Air Quality:
- Water Quality, Demand and Supply;
- Flooding;
- Soil and Land;
- Minerals;
- Energy use; *and*
- Waste.

8.2 Air Quality

8.2.1 *Contextual review*

The **NPPF** identifies that there is a need to: prevent 'both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability'.

The **NPPF** identifies that 'Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan'.

The **UK Air Quality Strategy (2007)**[33] sets out air quality objectives and policy options to further improve air quality in the UK. This is supplemented by more recent guidance on how air pollution and climate objectives can be realised together through an integrated policy approach.

8.2.2 *Baseline position*

Currently air quality is regarded generally as being good. However latest progress reports have recognised that some pollutants (mainly nitrogen dioxide and small particles - PM10) may increase in future as a result of general increase in road traffic in the region and this will be kept under close surveillance[34].

Problems associated with traffic exhaust emissions are encountered in many traffic congested towns and cities in the UK and where air quality objectives are exceeded local councils are required to declare an Air Quality Management Area (AQMA) to address the problems in order to protect health of local residents and others who work or visit the area. No AQMAs have been declared in North Northamptonshire.

[33] Defra (2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland [online] available at: http://www.defra.gov.uk/environment/quality/air/air-quality/approach/

[34] North Northamptonshire Joint Planning Unit – Sustainability Appraisal Scoping Report (August 2011)

8.3 Water Quality, Demand and Supply

8.3.1 *Contextual review*

The **European Water Framework Directive (WFD)** (2000/60/EC)[35] promotes an integrated and coordinated approach to water management at the river basin scale. One of its key objectives is the requirement to prevent deterioration in status and achieve at least Good Ecological Status in inland and coastal waters following deadlines ranging from 2015 to 2027. The WFD also requires all Artificial or Heavily Modified Water Bodies to achieve Good Ecological Potential.

The **Nitrates Directive** (91/676/EEC) aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by the promoting of the use of good farming practices. The Nitrates Directive forms an integral part of the WFD and is one of the key instruments in the protection of waters against agricultural pressures[36].

The UK strategy **Future Water (2011[37])** seeks to achieve a secure supply of water resources whilst protecting the water environment. This means greater efficiency in water use, application of Sustainable Urban Drainage Systems, managing diffuse pollution from agriculture, tackling flood risk and reducing greenhouse gas emissions.

The NPPF states that local planning authorities should produce strategic policies to deliver the provision of a variety of infrastructure, including that necessary for water supply.

The White Paper, Water for Life says that authorities should encourage and incentivise water efficiency measures at the demand side[38].

The **Water Resources Strategy Regional Action Plan for Midlands Region** recognises the limited availability of water in the region. It requires development to incorporate efficiency measures and sustainable drainage systems at the planning stage. Timing and location of development must respect water resources and environmental constraints. It makes clear it will seek to ensure that development is sustainable, both in terms of water demand (water efficient devices and rainwater harvesting), water abstraction, treatment and supply, and water disposal (sewerage and sustainable urban drainage systems)[39].

8.3.2 *Baseline position*

In January 2007 an Outline Water Cycle strategy was produced for North Northamptonshire to establish a strategic overview as to the capacity of the existing water and sewerage infrastructures in relation to the planned levels of growth identified within the adopted CSS. This study was commissioned to understand and mitigate the potential effects of the growth agenda so as to not overwhelm existing infrastructure. This also provided a timeline which highlighted, at an early stage, any potential constraints which may affect delivery of the overall growth agenda (using the CSS trajectory as a guide), plus when and how this needs be addressed.

The study concluded that the sewerage system for Kettering, Rothwell and Desborough requires significant investment and upgrade as well as general network improvements being required across all growth locations. With regards to sewage treatment, the study also recommends that additional treatment capacity is provided. With regards to Water Supply, this study identifies both an extension to the Wing Water Treatment Works and mitigation works at

[35] Directive 2000/60/EC of the European Parliament and the Council establishing a framework for the Community action in the field of water policy accessible at: http://ec.europa.eu/environment/water/water-framework/
[36] Directive 91/676/EEC of the European Council, concerning the protection of waters against pollution caused by nitrates from agricultural sources.
[37] DEFRA (2011) Future Water: The Governments Water Strategy for England.
[38] DEFRA (2011) Water for life (The Water White Paper) [online] available at: http://www.official-documents.gov.uk/document/cm82/8230/8230.pdf
[39] Environment Agency (2009) Water Resources Strategy Regional Action Plan for Midlands Region [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291414/geho1209brkx-e-e.pdf

Rutland Water as critical to ensuring there is sufficient water capacity and service standards are maintained. There is an expansion scheme for Wing Treatment Works which will cater for water supply requirements for developments up to 2019. Long-term water resources are identified as likely to be provided by the 'Trent transfer scheme'.

8.4 Flooding / natural hazards

8.4.1 *Contextual review*

The Flood and Water Management Act[40] sets out the following approaches to flood risk management:

- Incorporating greater resilience measures into the design of new buildings, and retro-fitting at risk properties (including historic buildings);
- Utilising the environment, such as management of the land to reduce runoff and harnessing the ability of wetlands to store water; and Identifying areas suitable for inundation and water storage.

The **Northamptonshire Local Flood Risk Management Strategy** is an important document that sets out the management of flood risk in Northamptonshire for the coming years[41].

8.4.2 *Baseline position*

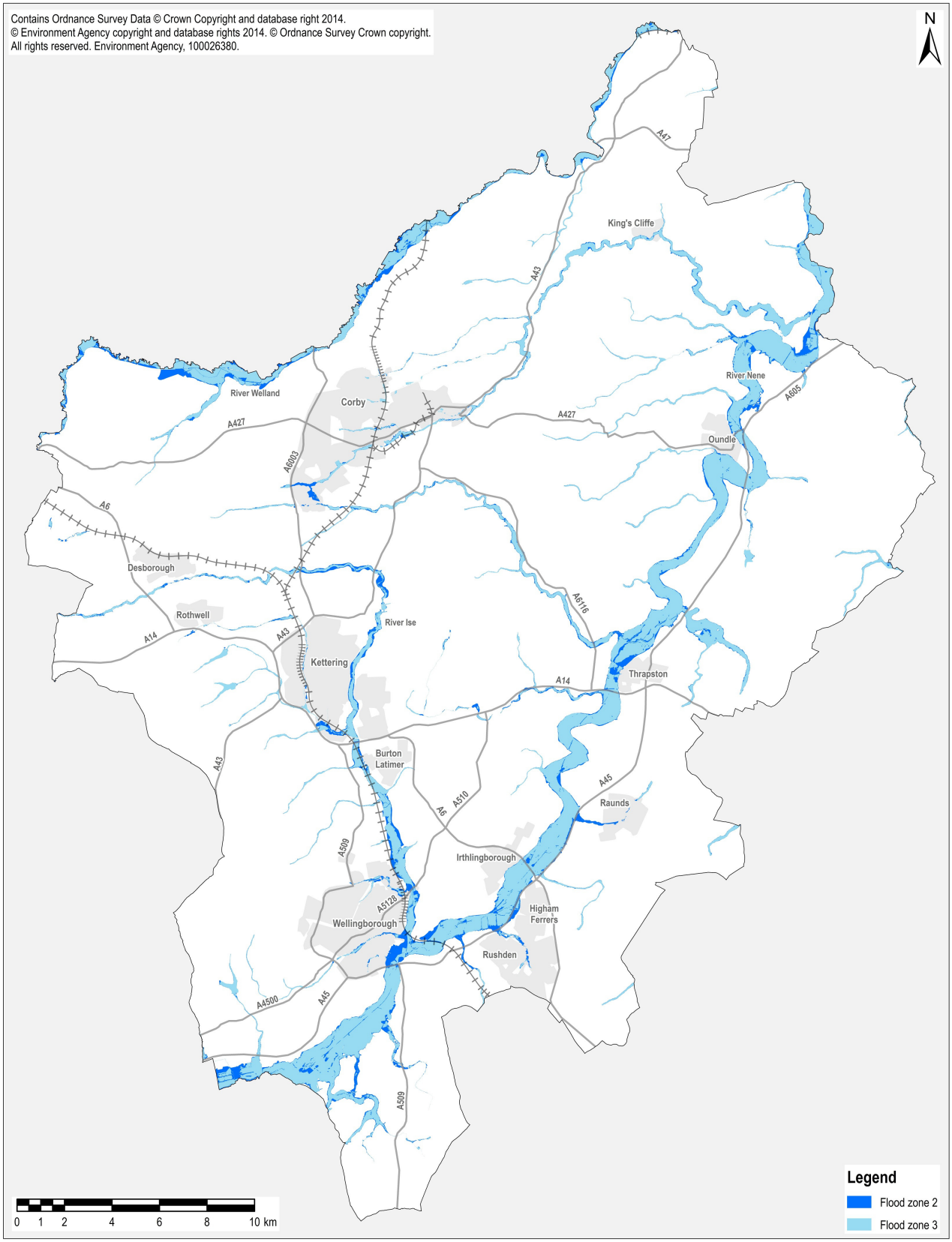
The hydrology of the area is dominated by the River Nene catchment, with this main river flowing south west to north east across North Northamptonshire. The greater part of the area is drained by a series of tributaries that flow into the Nene comprising the River Ise, Harpers Brook and Willow Brook.

Figure 8.1 illustrates fluvial flood risk throughout the County. The greatest flood risk is posed along the banks and in the vicinity of the River Nene which runs from north to south in the region. The south east of Wellingborough is particularly at risk of flooding, with larger areas of flood zone 3 around Little Irchester. The River Nene also causes potential flood problems at Rushden and Thrapston, with areas of flood zone 3 land there too.

There are areas of flood zone 3 on the North West border of North Northamptonshire due to the River Welland which continues into neighbouring Market Harborough.

[40] Flood and Water Management Act (2010) [online] available at: http://www.legislation.gov.uk/ukpga/2010/29/contents
[41] Northamptonshire County Council (2013) [online] available at: http://www.northamptonshire.gov.uk/en/councilservices/Environ/flood/Documents/PDF%20Documents/Northamptonshire%20Local%20Flood%20Risk%20Management%20Strategy%20October%202013.pdf?bcsi_scan_AB11CAA0E2721250=5oqYZFl30rfeA5xDOEdTlsNtid0kAAAAmJf3Nw==&bcsi_scan_filename=Northamptonshire%20Local%20Flood%20Risk%20Management%20Strategy%20October%202013.pdf

Figure 8.1: Fluvial flood risk / flood zones



8.5 Soil and Land

8.5.1 *Contextual review*

In **Safeguarding our Soils: A strategy for England (2009)**[42], a vision is set out for the future of soils in the country: "*By 2030, all of England's soils will be managed sustainably and degradation threats tackled successfully. This will improve the quality of England's soils and safeguard their ability to provide essential services for future generations*". An element of this vision is the condition of soils in urban areas, which are to be *'sufficiently valued for the ecosystem services they provide and given appropriate weight in the planning system'.* Good quality soils in urban areas are recognised in this strategy as being 'vital in supporting ecosystems, facilitating drainage and providing urban green spaces for communities'. That planning decisions take sufficient account of soil quality is a concern highlighted in the strategy, in particular in cases where' significant areas of the best and most versatile agricultural land are involved'. Preventing the pollution of soils and addressing the historic legacy of contaminated land is another element of the reports vision. Changing demands on our soils need to be better understood and it must be ensured that 'appropriate consideration is given to soils in the planning process.

The **NPPF** recognises that both new and existing development should not contribute to, be put at unacceptable risk from, or be adversely affected by unacceptable levels of soil pollution or land instability. In addition, despoiled, degraded, derelict, contaminated and unstable land should be remediated and mitigated where appropriate.

Part IIA of the **Environmental Protection Act (1990)**[43] sets the following duties on local authorities:

- To inspect the local authority for land that may be contaminated; and
- To inspect individual sites which may be contaminated and to ensure the appropriate action is taken to remediate the land.

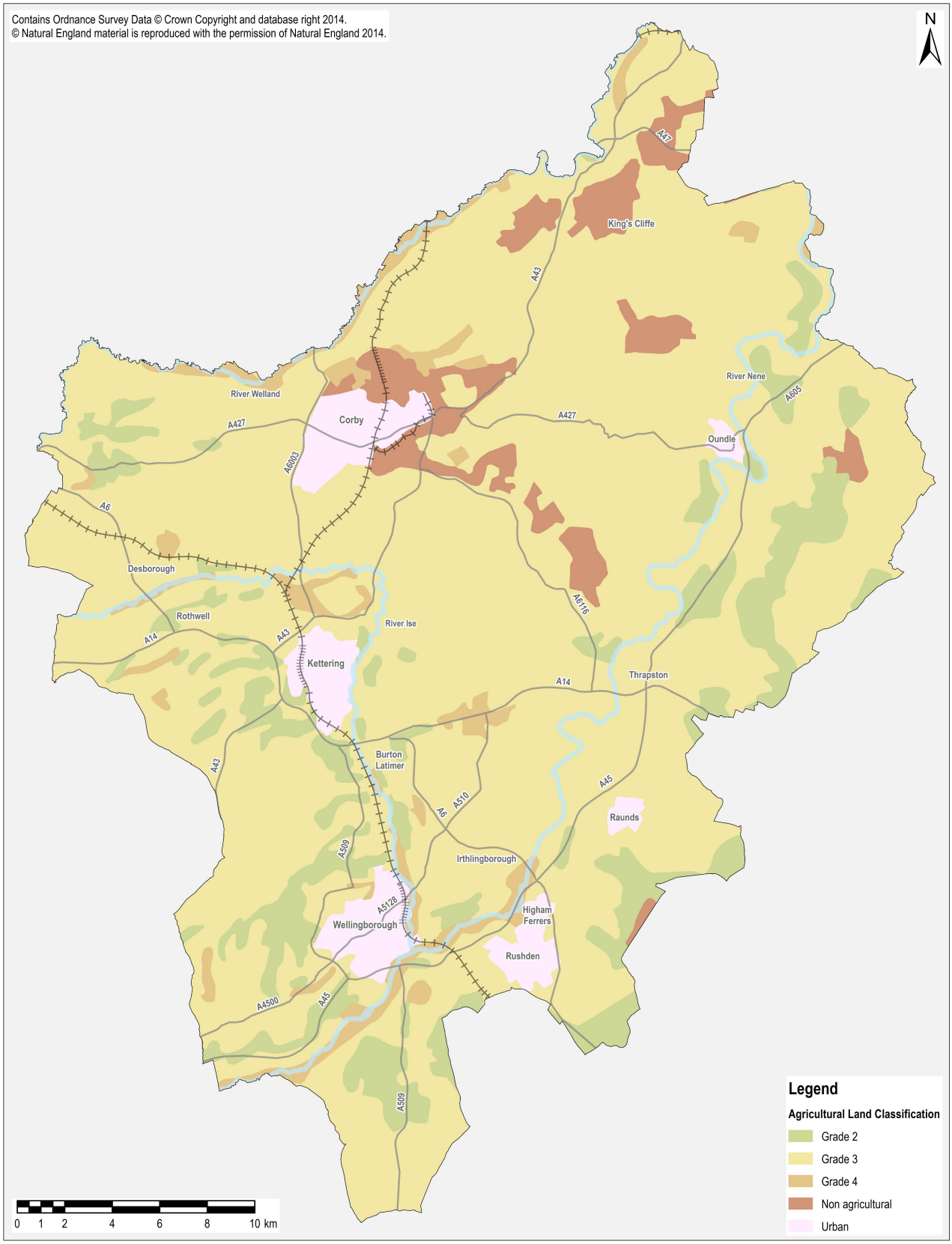
8.5.2 *Baseline position*

Northamptonshire's solid geology comprises almost entirely of sedimentary strata of the Jurassic Period. Overlaying the solid geology are deposits of glacial sands, gravels and till, whilst alluvial deposits can be found in the main valleys and tributaries of the Nene and Welland. In North Northamptonshire the Jurassic limestone and ironstone is well represented and has determined and influenced the form and appearance of settlements and buildings. These have been extensively quarried and have provided a rich source of building material which is reflected in the local vernacular. The iron rich strata have been worked since Roman times through to the 20th Century, particularly in the Rockingham Forest and Corby Area. The legacy of quarries, mining and associated industry has had a profound influence on the landscape. Reinstated mineral workings now characterise much of the agricultural landscape from Wellingborough to Corby.

Agricultural land classification in North Northamptonshire is derived from the maps prepared by the Agricultural Development and Advisory Service of the Ministry of Agriculture, Fisheries and Food, with the assistance of the Soil Survey of England and Wales 1974. As illustrated on Figure 8.2, much of the soil within the area is classified as Grade 3. There are however likely to be significant areas of Grade 2 around Wellingborough and Kettering, with particular concentrations to the west of both settlements. There are also large parcels around Wollaston and south of Irchester, and there is an arc stretching from the south of Titchmarsh to the west of Clopton to Polebrook. Other patches exist around the villages of Tansor, Fotheringhay and Nassington.

[42] DEFRA (2009) Safeguarding our Soils: A Strategy for England.
[43] http://www.legislation.gov.uk/ukpga/1990/43/contents

Figure 8.2: Agricultural land classification



8.6 Minerals

8.6.1 *Contextual review*

The **NPPF** states that minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.

The **Northamptonshire Minerals and Waste Local Plan** was adopted in October 2014. It establishes the land use strategy for all minerals and waste in Northamptonshire in one document. The purpose is to set out detailed land-use policies and proposals in relation to waste management and waste disposal[44].

8.6.2 *Baseline position*

The main mineral resources present in Northamptonshire are sand and gravel, limestone and ironstone. Economically sand and gravel is by far the most important mineral resource that is found in the county. Limestone (supplying crushed rock) is primarily found in the north and north-east of the county. Ironstone deposits are also found in large parts of central and east Northamptonshire but have minimal economic importance and are no longer extracted.

[44] Northamptonshire County Council (2014) Northamptonshire Minerals and Waste Local Plan [online] available at: http://www.northamptonshire.gov.uk/en/councilservices/Environ/planning/policy/minerals/Documents/PDF%20Documents/Cabinet%20Report%20MWLP%20Adoption%20Sep14%20Appendix2.pdf?bcsi_scan_AB11CAA0E2721250=tBJHuFhfjtyyeu9U+SqIrmmDsgckAAAAspbJNw==&bcsi_scan_filename=Cabinet%20Report%20MWLP%20Adoption%20Sep14%20Appendix2.pdf

8.7 Energy Use

8.7.1 *Contextual review*

According to the **NPPF**, the need to 'support the transition to a low carbon future in a changing climate' is a 'core planning principle'.

Planning should play a key role in securing 'radical reductions' in greenhouse gas (GHG) emissions planning for new development in locations and ways which reduce GHG emissions in order to meet the targets set out in the Climate Change Act 2008.

Local plans should also support energy efficiency improvements to existing buildings and extensions[45].

Local plans should positively promote renewable energy technologies and consider identifying suitable areas for their construction; working with developers to make renewable energy projects acceptable to local communities.

The **UK Renewable Energy Strategy (2009)**[46] sets the target to achieve a 15% share of energy from renewable sources by 2020. The **National Renewable Energy Action Plan for the United Kingdom (2009)**[47] sets out a framework to achieve this target, with the following three key components:

- Financial support for renewables;
- Unblocking barriers to delivery; and
- Developing emerging technologies.

8.7.2 *Baseline position*

Energy use in North Northamptonshire is shown in Table 8.1 and 8.2. Throughout the authorities, gas usage has reduced between 2009 and 2011 in line with regional trends. Electricity consumption has remained steady however, with Kettering and Corby showing a slight increase[48].

Table 8.1 Average consumption of ordinary domestic electricity

	2009 kWh	2010 kWh	2011 kWh
Corby	3,528	3,540	3,556
East Northamptonshire	3,951	3,953	3,931
Kettering	3,644	3,633	3,650
Wellingborough	3,552	3,600	3,577
East Midlands	3,570	3,613	3,586
England	3,797	3,810	3,777

Source: Neighbourhood Statistics, Office for National Statistics

[45] Committee on Climate Change (2012) How local authorities can reduce emissions and manage climate risk [online] available at: http://hmccc.s3.amazonaws.com/Local%20Authorites/1584_CCC_LA%20Report_bookmarked_1b.pdf
[46] DECC (2009) UK Renewable energy Strategy available [online] at http://www.official-documents.gov.uk/document/cm76/7686/7686.pdf
[47] DECC (2009) National Renewable energy Action Plan available [online] at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47871/25-nat-ren-energy-action-plan.pdf
[48] ONS (2013) Local Profiles Environment [online] available at: http://neighbourhood.statistics.gov.uk/dissemination/Info.do?m=0&s=1373450973322&enc=1&page=analysisandguidance/analysisarticles/local-authority-profiles.htm&nsjs=true&nsck=false&nssvg=false&nswid=1276

Table 8.2 Average consumption of domestic gas

	2009 kWh	2010 kWh	2011 kWh
Corby	14,950	14,795	13,748
East Northamptonshire	15,176	15,139	14,204
Kettering	15,091	15,006	13,993
Wellingborough	14,800	14,657	13,606
East Midlands	15,593	15,478	14,509
England	15,350	15,141	14,173

Source: Neighbourhood Statistics, Office for National Statistics

8.8 Waste

8.8.1 *Contextual review*

The **Government's Review of Waste Policy in England' (2011)** recognises that environmental benefits and economic growth can be the result of a more sustainable approach to the use of materials. As such, it sets out a vision to move beyond our current 'throwaway society' to a 'zero waste economy'. The report recognises that planning will play a critical role in delivering this ambition.

The Waste Management Plan for England (2013) concludes that from the 2011 review, further policy measures are not needed to meet the key objectives of the revised Waste Framework Directive.

The Government announced in November 2013 that it is to reduce its policy development in areas such as commercial and industrial waste and construction and demolition waste, as well as energy from waste policy development. Continued support will however ever continue on the EU waste agreements as the European Commission brings forward proposals on waste and resource efficiency. In addition, the Materials Recovery Facility regulations will be progressed to drive up the quality of recycled material and help support growth and the economy by maximising the economic value of the waste material collected[49].

The Government's December 2013 statement on waste**, (Prevention is Better than Cure**[50]**)** the agenda to move towards resource efficiency is presented. The aim of the Programme is to improve the environment and protect human health by supporting a resource efficient economy, reducing the quantity and impact of waste produced whilst promoting sustainable economic growth. The Government wants to '*encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services'.*

While much of the document focuses upon the consumer rather than infrastructure sector, the Government seeks to assess progress against the aim of this programme, by measuring changes in overall waste arisings, the environmental impacts of waste and also by considering how these factors relate to changes in the resource efficiency of the economy.

The Waste Management Plan for England (2013) also notes that **Planning Policy Statement 10** (Planning for Sustainable Waste Management[51]) is in the process of being replaced by a National Planning Policy for sustainable waste management.

[49] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255508/waste-stakeholder-letter-131106.pdf
[50] HM Government, (2013): Prevention is Better than Cure: The Role of Waste Prevention in Moving to a More Resource Efficient Economy, [online] available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265022/pb14091-waste-prevention-20131211.pdf
[51] Planning for Sustainable Waste Management, [online] available at: www.gov.uk/government/publications/planning-for-sustainable-waste-management-planning-policy-statement-10

The **Northamptonshire Minerals and Waste Local Plan** was adopted in October 2014. It establishes the land use strategy for all minerals and waste in Northamptonshire in one document. The purpose is to set out detailed land-use policies and proposals in relation to waste management and waste disposal[52].

8.8.2 *Baseline position*

Residual household waste has reduced in each of the local authorities, in line with regional and national trends over the he last 5-10 years. Supermarkets and food companies have contributed to reducing waste by using less packaging in their products; the figures can be seen in Table 8.3. Authorities in North Northamptonshire have also made considerable progress with levels of recycling. The figures can be seen in Table 8.4. Factors such as increasing education on the benefits of recycling and the ease in which it can now be done have contributed positively to these figures.

Table 8.3 Residual household waste per household

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	kg per household	kg per household	kg per household	kg per household	kg per household	kg per household	kg per household
Corby	794	656	559	549	526	534	511
East Northamptonshire	640	634	586	545	546	547	437
Kettering	684	537	525	480	482	468	457
Wellingborough	722	663	603	566	559	570	506
East Midlands	792	759	659	609	581	569	545
England	845	798	735	669	625	598	568

Source: Department for the Environment, Food and Rural Affairs

Table 8.4 Household waste sent for reuse, recycling or composting

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	%	%	%	%	%	%	%
Corby	18.0	30.7	38.4	40.5	41.6	41.8	40.9
East Northamptonshire	25.6	27.5	30.6	32.0	30.6	30.8	39.1
Kettering	28.9	45.1	45.8	47.7	44.8	46.8	46.7
Wellingborough	24.7	30.5	34.8	35.9	34.6	34.5	40.0
East Midlands	31.8	35.6	41.9	44.4	45.6	46.2	46.8
England	26.7	30.9	34.5	37.6	39.7	41.5	43.0

Source: Department for the Environment, Food and Rural Affairs

[52] Northamptonshire County Council (2014) Northamptonshire Minerals and Waste Local Plan [online] available at: http://www.northamptonshire.gov.uk/en/councilservices/Environ/planning/policy/minerals/Documents/PDF%20Documents/Cabinet%20Report%20MWLP%20Adoption%20Sep14%20Appendix2.pdf?bcsi_scan_AB11CAA0E2721250=tBJHuFhfjtyyeu9U+SqIrmmDsgckAAAAspbJNw==&bcsi_scan_filename=Cabinet%20Report%20MWLP%20Adoption%20Sep14%20Appendix2.pdf

9 MAINTENANCE OF ECONOMIC GROWTH AND EMPLOYMENT

9.1 Introduction

This section sets out the relevant policy framework and baseline position for the following sustainability factors that have been grouped under the theme of 'Maintenance of Economic Growth and Employment':

- Employment and Wealth Creation; *and*
- Town Centres.

9.2 Employment and Wealth Creation

9.2.1 *Contextual review*

The NPPF outlines that the planning system should contribute to building a strong, responsive economy by 'ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure'[53].

Local plans should support the sustainable growth and expansion of all types of business and enterprise in rural areas. It should also promote the development and diversification of agricultural and other land-based rural businesses. The improvement of transport links and the provision of adequate digital infrastructure can facilitate the 'significant untapped potential' of rural areas to contribute to economic growth and employment[54].

Broadband is a key enabler of socio-economic development, and as such the Government intends to establish world-class Broadband connectivity throughout the UK. Positive impacts associated with Broadband development have been identified in the **UK Broadband impact study**[55] which includes; increased productivity, social benefits and reductions in carbon emissions. This is particularly beneficial in rural areas, where access to jobs and services can be more difficult.

Northamptonshire's Strategic Economic Plan sets out an ambitious strategy to deliver accelerated economic growth and to meet the housing and employment needs of Northamptonshire. During the 2021 plan period it sets a target of 37,000 new homes and 32,500 jobs created. It is then projected this will rise to 80,000 homes and 70,000 jobs by 2031[56].

9.2.2 *Baseline position*

North Northamptonshire has under-performed against the ambitious job requirements of the 2008 CSS, which has increased the imbalance between housing and job provision. In the period 2001 to 2011, 17,740 new homes were built in the HMA but there was an estimated net increase of only 7,500 workplace jobs17. Data between 2011 and 2013 showed that workplace jobs fell by a further 1,900.

There has been a steady growth of people in North Northamptonshire in employment from early 2012 onwards. The June 2014 figures show that levels of employment for economically active people are above the National figure (72.1%) and the East Midlands figure (73%) in Kettering, where 80.7% of people are employed and East Northamptonshire, where 78.5% of people are employed. Corby has the highest unemployment rate amongst the authorities in North Northamptonshire, with 9.5% of economically active people out of work.

[53] DCLG (2012) National Planning Policy Framework [online] available at: http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf
[54] Federation of Small Businesses (2012) The Missing Links - Revitalising our rural economy [online] available at: http://www.fsb.org.uk/policy/assets/rural_report_web_final_proof.pdf
[55] Department for Culture, Media and Sport (2013) UK Broadband Impact Study: Impact Report [online] available at: http://www.sqw.co.uk/file_download/412
[56] Northamptonshire Enterprise Partnership (2013) Northamptonshire Strategic Economic Plan [online] available at: http://www.northamptonshire.gov.uk/en/councilservices/Environ/economic/Documents/PDF%20Documents/SEP%20FINAL%20DOCUMENT.pdf?bcsi_scan_E956BCBE8ADBC89F=LhkxmteTmdfY9RgpwoTchUCO+8aBAAAADfLItA==&bcsi_scan_filename=SEP%20FINAL%20DOCUMENT.pdf

The next highest is Wellingborough at 6.7%. These figures are both higher than the regional East Midlands figure of 6.5%.

In terms of the types of jobs people have in north Northamptonshire, 31% of the working population in Corby are in SOC 1, which is the top bracket of job types such as mangers, directors and professionals. This is lower than the 40.9% across the East Midlands and 44.5% across Great Britain. The highest classification for Corby (37.1% of people) is SOC 8-9, which includes jobs like machine operatives and elementary occupations. This again is lower than the East Midlands (20.5%) and Great Britain (17.1%) averages. This is in contrast to Wellingborough where there is 41.8% of people in SOC 1 and only 18% in SOC 8-9. This trend is also similar in Kettering and East Northamptonshire[57].

9.3 Town Centres

9.3.1 *Contextual review*

The **NPPF** has one of its core policies as ensuring the vitality of town centres. It states planning policies should be positive, promote competitive town centre environments and set out policies for their management and growth.

9.3.2 *Baseline position*

The town centres in North Northamptonshire are relatively small and poorly ranked compared to neighbouring centres. Kettering is the largest and highest ranked retail centre[58] in North Northamptonshire ranked 200th followed by Corby 365th and Wellingborough 374th. Consequently, there is a loss of trade from North Northamptonshire to larger, higher ranked centres, in particular from Rushden and Wellingborough in the southern area which lose trade to Milton Keynes ranked 29th and Northampton 56th. Leicester (ranked 17th) and Peterborough (54th) also exert influences on North Northamptonshire.

The North Northamptonshire Retail Capacity update[59] indicates that North Northamptonshire now retains around 61.5% of comparison retail spending, an increase from 50% in 2005. However, this increased retention has been driven by increased expenditure at out of centre and edge of centre retail parks rather than the town centres. Of the four main towns, only Corby has seen an increase in town centre expenditure as a result of the development of Willow Place. The approval of a major out of centre retail and leisure scheme at Rushden Lakes will contribute towards retention of expenditure, particularly in the southern area but will impact on Wellingborough town centre in particular.

According to the 2013 AMR, only 0.75% of the net floorspace delivered throughout North Northamptonshire was delivered in town centres[60].

[57] ONS (2013) Local Profiles Employment [online] available at: http://neighbourhood.statistics.gov.uk/dissemination/Info.do?m=0&s=1373450973322&enc=1&page=analysisandguidance/analysisarticles/local-authority-profiles.htm&nsjs=true&nsck=false&nssvg=false&nswid=1276
[58] Venuescore Retail Rankings 2013-14
[59] Roger Tym and Partners, May 2012 http://www.nnjpu.org.uk/publications/docdetail.asp?docid=1181
[60] North Northampton Joint Planning Unit (2014) Annual Monitoring Report 2012/13 [online] available at: http://www.nnjpu.org.uk/docs/AMR%202012-13.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=AMR%202012-13.pdf

10 WHAT ARE THE KEY ISSUES THAT SHOULD BE A FOCUS OF THE APPRAISAL?

10.1 Introduction

Drawing on the review of the sustainability context and baseline, a range of key sustainability issues have been identified that should be a focus of SA, ensuring it remains focused on the key issues. These sustainability issues are listed in Table 10.1 below, structured by the broad themes and topic headings that were used to structure the scope of the SA.

Table 10.1: Sustainability themes and key issues

Social progress which recognises the needs of everyone
Accessibility • Strategic location and integrated transport links. • The challenge of meeting modal shift targets. • New passenger rail service/ station at Corby. • A number of small towns each with a separate identity. • No one dominant centre. • Role of large rural hinterland and its villages. **Housing** • Need for affordable housing, including gypsy and traveller accommodation. • Viability of achieving objectively assessed housing need targets. • There is a need to support the viability of the rural economy. • Delivering household growth in current economic climate. • Growth in one person households. • Live-work units in rural areas to sustain rural communities and reduce the need to travel. • Need for rural housing with a range of house types and sizes. **Skills** • No university provision within North Northamptonshire. • Out-migration to surrounding competitor areas. • The need to increase the offer for further and higher education. • Capacity of schools. • Skills and qualifications shortage. • Provision of childcare and early year's provision for sustainable development. **Crime** • Rates of crime lower than the national and county average. • Use planning (including providing relevant infrastructure) and design to reduce opportunities for crime and the fear of crime and anti-social behaviour. • Rates of crime are declining across North Northamptonshire. • Crime and fear of crime have been identified as factors which influence the levels of both health and social inclusion of local populations. • Crime can be a cause of economic decline if not adequately addressed. **Health** • Reliance on Kettering General Hospital. • High rates of teenage pregnancies in Corby and Wellingborough. • Inequalities in health, linked to social exclusion. • Inactive lifestyles of population of Corby and Kettering. • Trend towards home based care; design of developments to accommodate this. **Communities** • Pockets of deprivation in growth towns. • Corby contains the most deprived wards in the County. • Rural deprivation linked to access to services and facilities. • Need to plan for the needs of different ethnic groups. • Population growth above national and regional averages. • Increasing elderly population.

Effective protection of the environment

Heritage
- There is often poor interpretation of heritage sites and monuments.
- Aspects of more recent heritage are often overlooked or undervalued.
- The vulnerability of the historic environment as a finite resource to change.
- The capacity of historic settlements to accommodate significant development without damaging their historic character.
- Potential value of heritage assets to tourism opportunities.
- The protection and enhancement of cultural heritage.

Landscape
- The quality and distinctiveness of landscapes has been eroded by some modern development.
- There are opportunities to improve the tourism offer, and the wider benefits of valued landscapes in terms of the image of the area and the health and wellbeing opportunities.
- Value of landscape for the image of the area and attractiveness to new investment.
- The ability of the landscape to provide a tranquil setting and 'dark sky' at night.
- Limited biodiversity resource.

Biodiversity
- Protection of key wildlife sites remains a priority.
- Lack of up-to-date data relating to all County Wildlife Sites.
- International designation of an SPA in the Nene Valley.
- Fragmentation of habitats and loss of ancient woodland.
- The need to create new habitats (particularly to reduce fragmentation) to contribute to linkages between existing habitats.
- Opportunity for creation and enhancement of habitats through both mineral site restoration and new development proposed by the growth agenda.
- Opportunity to contribute to positive management of existing Local Wildlife sites.
- Importance of maintaining ancient woodland areas.

Climate change
- Lack of data.
- The opportunity for renewable energy schemes.
- The need to reduce emissions particularly related to traffic growth.
- The need to adapt buildings to natural processes and climate change.
- Energy demand from existing buildings.
- Gap between demand and provision, particularly in renewable provision.

Prudent use of natural resources

Air quality
- Some pollutants may increase to unacceptable levels as a result of road traffic growth.

Soil and land
- Vernacular architecture using local materials (banded ironstone, limestone and Collyweston slate) is an important aspect of historic character and informs local distinctiveness.
- High Quality Agricultural Land around Wellingborough and Kettering.
- Limited supply of previously developed land (brownfield) land in some areas.
- Need to safeguard and enhance soils.

Water and flooding
- Control of run off and addressing contamination issues.
- Significant investment required in the management of run-off and flood risk and upgrading of waste water treatment capacity and sewerage networks.

Minerals and waste
- Managing waste generated by growth in a sustainable manner.
- Delivering the minerals required to meet apportionments in appropriate locations.

Maintenance of economic growth and employment
Town centres • Tourism remains peripheral to the economy. • Network of centres meeting day to day needs of residents. • Individual town centres in North Northamptonshire are relatively weak compared to competing centres. • Requirement to strengthen and enhance all the Town Centres. • Access to facilities from rural areas, new development could provide an opportunity to support the rural economy. • A concentration of cultural facilities and tourism activities can act as a magnet for visitors. • Concentrating tourism development within town centres provides the potential to support wider regeneration and sustainable development objectives. Interdependency of cultural and tourism services. • New facilities being multifunctional and centrally located with good access. • Linking in tourism to town centre regeneration schemes. • Role of smaller towns. **Economy** • Uncertainty over impact of recession on delivery of growth plans. • Need for investment to maintain development activity and ensure that conditions are right for growth as the market recovers. • Importance of manufacturing and storage and distribution. • Opportunities for growth in knowledge based industries. • Opportunities as part of Motorsport Valley. • Limited office space with slow take up. • Competition from and dominance of Northampton for office space. • Diversification of the economy.

11 THE SA FRAMEWORK

A SA Framework was developed as part of the adopted 2008 CSS and was taken as the starting point in the development of an appropriate framework for appraising the review of the Joint Core Strategy. However, this framework was refined to ensure:

- That it reflects the most up-to-date evidence (as gathered through the scoping process);
- That it reflects the key issues identified through scoping;
- That it takes account of stakeholder comments; *and*
- That it is the most appropriate to the scope of the new (revised) Joint Core Strategy.

Taken together, the sustainability topics, objectives and decision making criteria provide a methodological framework for the appraisal of alternatives and the draft plan. These have been drawn together into an 'SA Framework, as presented in the tables below.

SA Topic	SA Objectives	SA Decision Making Criteria (will the option or policy:)
Social progress which recognises the needs of everyone		
Accessibility	To improve accessibility and transport links from residential areas to key services, facilities and employment areas and enhance access to natural environment and recreational opportunities	• Improve access for the disabled? • Improve access to public transport? • Improve public transport services? • Improve access to local services and facilities? • Improve access to IT? • Improve access by foot or cycle? • Ensure services are located to maintain the viability of settlements? • Reduce the need to travel? • Reduce travel distances (particularly journey to work)?
Housing	Ensure that new housing provided meets the housing needs of the area provide affordable and decent housing for all	• Reduce homelessness? • Provide enough affordable housing to meet need from all sections of the community? • Reduce the number of unfit homes? • Provide housing to meet local needs in the rural area? • Provide a range of house types and sizes? • Facilitate provision of new homes in communities with sense of place and adequate access to facilities? • Facilitate provision of new homes which are easy to maintain and heat and which minimise the impact on the environment?

SA Topic	SA Objectives	SA Decision Making Criteria (will the option or policy:)
Social progress which recognises the needs of everyone		
Health	Improve overall levels of physical and mental health, reduce the disparities between different groups and different areas	• Address health and welfare needs and inequalities in the area? • Encourage healthy lifestyles (including travel choices)? • Improve sporting or recreational facilities and access to them? • Improve access to high quality health facilities? • Increase number of people in urban areas with access to public open space?
Crime	To improve community safety, reduce the incidences of crime and the fear of crime and anti-social behaviour – a safe place to live	• Reduce incidences of crime? • Reduce the fear of crime? • Ensure design and layout minimises the opportunity for crime? • Provide safer communities and help to create safer communities?
Community	Value and nurture a sense of belonging in a cohesive community whilst respecting diversity	• Increase the ability of people to influence decisions? • Improve cultural diversity? • Create or sustain a vibrant community? • Encourage engagement in community activities? • Meet specific needs of a section of the community • Will it maintain and enhance community facilities and provide locations for community level activities and organisations?
Skills	To improve overall levels of education and skills	• Improve access to educational/learning or training facilities for all ages? • Will it help to improve people's skills? • Will it improve uptake of learning and training in urban and rural areas?
Liveability	To create healthy, clean and pleasant environments for people to enjoy living, working and recreating in and to protect and enhance residential amenity	• Reduce noise pollution? • Improve the cleanliness of the environment? • Reduce unpleasant odours? • Improve the satisfaction of people with their neighbourhoods? • And improve /safeguard tranquillity? • Minimise light pollution or reduce or remove light pollution?

SA Topic	SA Objectives	SA Decision Making Criteria (will the option or policy:)
Effective protection of the environment		
Biodiversity	To protect, conserve and enhance biodiversity, geodiversity, wildlife habitats and green infrastructure to achieve a net gain an to avoid habitat fragmentation	• Protect and enhance sites of acknowledged importance for wildlife (SSSIs, CWS, LNRs)? • Avoid harm to and enhance opportunities for protected species and others listed in the Northamptonshire Red Data Book? • Create habitats of value for wildlife in particular those which meet BAP target? • Improve the connectivity of green spaces and green networks? • Improve appropriate access to natural areas? • Avoid fragmentation of habitats? • Create new greenspace networks? • Improve management of habitats? • Will it allow biodiversity to adapt to the impacts of climate change?
Landscape	To protect and enhance the quality, character and local distinctiveness of the natural and cultural landscape and the built environment	• Ensure that landscape character, including historic landscape character, and townscape assessments are used to assess the capacity of areas to absorb new development thereby influencing the location and scale of development? • Ensure landscape Character Assessment influences design of the built environment and networks of green infrastructure? • Maintain and enhance the quality of the built environment? • Protect, maintain, enhance and expand good quality of open space within and adjacent to settlements? • Create buildings and spaces that are attractive, functional, adaptable and durable that compliment, enhance and support local character? • Encourage the re-use of and refurbishment of the existing built environment?
Cultural Heritage	Protect and enhance sites, features and areas of historic, archaeological, architectural and artistic interest and their settings	• Protect and enhance sites, features and areas of historical, archaeological and cultural value and their setting? • Protect and enhance sites of geological value?
Climate Change	Reduce the emissions of greenhouse gases and impact of climate change (adaptation)	• Reduce emissions of greenhouse gases? • Increase tree cover? • Ensure adaptability of environments and buildings to natural hazards? • Promote resource efficient buildings? • Encourage innovation in sustainable design and construction?

SA Topic	SA Objectives	SA Decision Making Criteria (will the option or policy:)
Prudent Use of natural resources		
Air	To maintain or improve local air quality	• Reduce traffic related pollution? • Minimise or reduce light pollution? • Reduce levels of dust or particulates?
Water	Maintain or improve the quality of ground and surface water resources and minimise the demand for water	• Minimise or reduce the risk of pollution to water? • Encourage water efficiency? • Will it reduce levels of pollution to water (SUDS)? • Reduce water consumption? • Ensure capacity of available water resources, taking into account climate change?
Natural Hazard	Reduce the impact of flooding and avoid additional risk	• Reduce the risk of/effects of flooding, taking into account climate change? • Encourage Sustainable Drainage Systems? • Ensure adaptability of environments and buildings to natural hazards?
Soil and Land	Ensure the efficient use of land and maintain the resource of productive soil	• Maintain the best and most versatile agricultural land? • Reduce the risk of land contamination? • Remediate contaminated land? • Minimise the loss of green field land? • Maximise the use of Brownfield land? • Maximise densities?
Minerals	Ensure the efficient use of minerals and primary resources	• Avoid the sterilisation of known minerals reserves? • Promote the appropriate use of primary and secondary aggregates? • Will it make use of previously developed land or buildings?
Energy Use	To mitigate climate change by minimising carbon based energy usage by increasing energy efficiency and to develop North Northamptonshires renewable energy resource, reducing dependency on non-renewable resources.	• Minimise or reduce energy use? • Promote energy efficient buildings? • Help develop the areas renewable energy resource? • Reduce the dependency on non-renewable resources? • Encourage the development of renewable energy generation schemes (e.g. Wind)? • Encourage community heating schemes or combined heat and power? • Encourage small scale schemes in developments (e.g. Solar)?
Waste	To reduce waste arisings and increase reuse, recycling and composting	• Promote resource efficient buildings? • Encourage the use of recycled materials? • Reduce the production of waste?

SA Topic	SA Objectives	SA Decision Making Criteria (will the option or policy:)
Maintenance of high and stable levels of economic growth and employment		
Employment	Maintain and enhance employment opportunities and to reduce the disparities arising from unequal access to jobs	• Provide new jobs? • Encourage efficient patterns of movement? • Increase the proportion of knowledge based and high tech businesses? • Will it sustain and promote jobs in urban and rural areas? • Increase the diversity and quality of employment opportunities in the rural area • Will it utilise and enhance the existing infrastructure? • Will it help maintain a transport network that minimises the impact on the environment? • Will it help sustain existing businesses?
Wealth Creation	Retain and enhance the factors which are conducive to wealth creation, including personal creativity, infrastructure and the local strengths and qualities that are attractive to visitors and investors	• Encourage enterprise and innovation? • Exploit opportunities for new technologies? • Enhance and promote the image of the area as a business and a sustainable tourist location? • Improve House price/earnings ratio?
Town Centres	Protect and enhance the vitality and viability of town centres and market towns	• Retain and develop a wide range of uses, attractions and amenities? • Ensure good accessibility to and within the centre? • Attract continuing investment in development or refurbishment? • Encourage the evening economy? • Encourage increased housing?

PART 2: WHAT HAS PLAN-MAKING / SA INVOLVED UP TO THIS POINT?

12 INTRODUCTION (TO PART 2)

The 'story' of plan-making / SA is told within this Part of the SA Report (Part 2). Specifically, this Part of the SA Report describes how, prior to preparing the Pre-Submission Version of the plan, there was an appraisal of [and consultation on] alternative approaches to addressing a range of plan issues; and precisely how the North Northamptonshire Joint Planning Unit took account of these 'interim' SA findings.

Prior to the assessment of alternatives, an appraisal was also undertaken on a draft spatial vision.

12.1 What issues have alternatives been identified for?

The Regulations[61] are not prescriptive, stating only that the SA Report should present an appraisal of the 'plan and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme'.

In practice, local authorities in England tend to consider reasonable alternatives for a reasonable range of the issues addressed though plan-making.

This section describes how, as an interim plan-making / SA step, reasonable alternatives were considered for the following plan issues:

- Housing growth and distribution;
- Employment growth and distribution;
- Strategic site options;
- Strategic locations at Rushden and Deenethorpe; and
- Core policy options.

12.2 Structure of Part 2

Chapter 13 summarises how the SA process was applied to help shape the spatial vision and objectives for the Local Plan (Joint Core Strategy).

The following chapters then deal with the alternative approaches that have been identified and assessed for each of the issues listed above. Each of these chapters answers the following questions:

- Why have alternatives been considered for this issue?

  Where appropriate, there is also a discussion of related issues for which alternatives have *not* been considered.

- What are the reasonable alternatives?

  Where appropriate, there is also a discussion of other alternatives that have *not* been considered

- Why has the preferred approach been selected?

  An explanation is given as to how the selection of a preferred approach reflects the findings of SA. Purple text highlights the Joint Planning Unit's reasoning. To further illuminate this explanation **Appendices II – XIII** of this SA Report present appraisal findings for each policy issue / set of alternatives.

[61] Environmental Assessment of Plans and Programmes Regulations 2004

13 APPRAISING THE DRAFT SPATIAL VISION

The Spatial vision has regard to the issues and challenges facing North Northamptonshire and leads to the identification of objectives/outcomes which will deliver this vision. The objectives set out what the Joint Core Strategy is aiming to achieve in spatial planning terms and set the context for the development of policy options.

It is important that the vision and objectives are in accordance with sustainability principles, and therefore they were tested for compatibility with the Sustainability Appraisal objectives at an early stage in the plan making process.

The findings of this process were presented in an initial Sustainability Appraisal report (March 2012[62]), which are summarised below.

Overall, the Joint Core Strategy vision and objectives were considered to score well against the Sustainability Appraisal objectives, providing a reasonable balance between social, economic and environmental factors.

In particular, positive relationships were noted for housing provision, economic growth and employment. No significant adverse effects were flagged at this stage, but a number of uncertainties were noted in relation to whether the objectives of the Joint Core Strategy were compatible with the SA framework:

- Draft Core Strategy objective 5 sought to meet NN's employment needs and economic diversity. This might not be compatible with sustainability objectives that seek to protect land and promote energy efficiency and effective use of energy;
- Draft Core Strategy objectives relating to economic growth, town centre vitality and promoting tourism may not be fully compatible with sustainability objectives that seek to protect land and historic buildings and promote energy efficiency.
- Draft Core Strategy objective 7, sought to ensure well connected towns and vibrant Countryside. This may conflict with sustainability objectives 8 and 9, which seek to protect and enhance biodiversity and landscape.

It is to be expected that there will be some potential incompatibility between Core Strategy objectives and sustainability objectives, as there are competing economic, social and environmental factors. As highlighted above, these areas of uncertainty often relate to the promotion of housing and economic growth and consequent effects on the natural and built environment. However, economic growth can be delivered in a sustainable way, and the SA process is a key factor in helping to achieve an appropriate balance between competing objectives.

Although potential negative effects are usually picked up (*with recommendations for mitigation and enhancement*) at later stages of the SA process through policy development and appraisal, some focused recommendations were made as a result of the SA findings at this stage.

These recommendations centred around the need to make the vision and outcomes more explicit in terms of ensuring that North Northamptonshire is capable of adapting to the *inevitable* impacts of climate change and more resilient to economic change.

These recommendations helped to influence the development of the Core Strategy Vision and the objectives illustrating how the iterative SA process has influenced and strengthened the Joint Core Strategy.

[62] http://www.nnjpu.org.uk/publications/docdetail.asp?docid=1275

14 HOUSING GROWTH AND DISTRIBUTION

14.1 Why have alternatives been considered for this issue?

The choice of a broad approach to housing growth and distribution is one of the most important decisions made through the Local Plan. Hence, it is important that the preferred approach is justified by a robust evidence-base. In light of this, it was considered important to subject alternative approaches of delivery to Sustainability Appraisal.

14.2 What are the reasonable alternatives?

14.2.1 *Housing growth*

The Joint Planning Unit (JPU) has determined the objectively assessed housing need (OAN) for North Northamptonshire through extensive technical work and consultation. . A key part of the evidence base for determining OAN is updated household forecasts by the Cambridge Centre for Housing and Planning Research (CCHPR). As advised by the National Planning Practice Guidance, the report to the 9th January 2014 Joint Planning Committee reviewed the CCHPR evidence of housing in light of economic forecasts and key market indicators including affordability. The OAN for North Northamptonshire is identified as being for 34,900 new dwellings over the period 2011-31. This is rounded to 35,000 in JCS Policy 28, which also identifies the 'strategic opportunity' (rather than OAN) for an additional 5,000 dwellings at the town of Corby to support its on-going growth and regeneration. This would take the total to 40,000 dwellings in the HMA.

The evidence used to establish the OAN for housing has been tested through the preparation of an Interim Housing Statement (IHS)[63]. This has been accepted by Planning Inspectors as representing the most robust and up-to-date of OAN in the North Northamptonshire HMA[64]

The JPU considered that it is appropriate to plan for the above housing requirements without the need to explore a range of alternative growth alternatives as part of the SA process. The following alternatives were considered, but were deemed to be unreasonable for the reasons outlined below.

Planning for a higher housing requirement

In the view of the JPU, a higher housing requirement is not considered to be deliverable and would place an unacceptable burden on existing infrastructure. The previous Regional Plan housing requirements for North Northamptonshire were the result of a policy decision rather than an assessment of needs, which the panel reports to the MKSM SRS (2004) and East Midlands Regional Plan (2007) noted was only achievable based on significant jobs growth, infrastructure delivery and through the delivery of Sustainable Urban Extensions to the areas towns. The report to the Joint Planning Committee on 22nd September 2010 demonstrated that the indicative Regional Plan housing target to 2031 was substantially in excess of locally generated housing requirements and was based on assumptions of economic growth, infrastructure investment and market demand that had not been experienced and were unlikely to occur in the foreseeable future. It is noted that none of the objectors advocating adherence to the Regional Plan targets made a plausible case for their delivery.

Planning for lower levels of housing delivery

In the view of the JPU, a lower housing requirement would not meet the objectively assessed housing need for the HMA and would have adverse impacts on delivering the overall spatial strategy. For example the lower population would reduce the spending power available to support local facilities including the planned expansion of the town centres and a smaller labour force would impact on the ability of the area to retain and attract businesses. CCHPR modelled a 'Zero net migration' scenario whereby population changes would be driven solely

[63] Interim Statement on Housing Requirements in the North Northamptonshire Housing Market Area – NNJPU Jan 2014
[64] See for example APP/L2820/A/13/2204628: Land to the rear of 18 & 20 Glebe Avenue, Broughton, Kettering and Appeal Ref: APP/G2815/A/13/2209113: Land between St Christopher's Drive and A605 Oundle Bypass, Oundle

by births and deaths. This would require only around 15,600 new homes but is not presented by CCHPR as a realistic option as it is clearly not consistent with the NPPF, which requires local Plans to be positively prepared and to meet household and population projections.

14.2.2 *Strategic distribution of housing*

As described above, the overall level of housing growth was determined by establishing the objectively assessed housing need.

In order to test alternative spatial approaches for delivering the requisite level of growth, the JPU has considered alternatives through the development of the JCS. A number of technical workshops were held in 2010 involving the relevant planning authorities and key stakeholder organisations. On-going discussions between key stakeholders led to the alternatives being better defined and refined to allow for a more robust assessment.

In order to aid in the appraisal and consultation processes, a background paper was produced in June 2011 which set out the assumptions about the numbers of homes and jobs[65] and how these would be distributed under each alternative.

Potential sites that might help to deliver each option were identified, largely based upon on local planning authority housing trajectories and the Strategic Housing Land (SHLAA) and Strategic Employment Land Assessments (SELA). It was made clear at the time that this did not imply any endorsement of these sites by the planning authorities and that further assessment of potential strategic sites in conjunction with the local planning authorities might rule out some of the sites referred to in the summary of alternatives.

Four reasonable alternatives were identified, which were focused on the roles of Corby, Kettering, Wellingborough and Rushden relative to each other and to nearby centres, in particular Northampton. The alternatives were titled:

A. Core Strategy Plus;

B. Twin poles;

C. Northern focus; and

D. Northampton (Southern) focus.

These four alternatives were each appraised against the SA Framework and against each other, the findings of which fed into the development of a preferred hybrid approach that formed the basis of the Emerging JCS that was consulted upon in 2012 (accompanied by an interim SA Report[66]) (March 2012) and which subsequently, based on further work, evidence and consultation evolved into the Pre-Submission JCS.

All of the spatial options referred to above were based on continuing the adopted Core Strategy of urban concentration, with growth focused at the growth towns and at large Sustainable Urban Extensions (SUEs). This was in conformity with the Regional Plan at the time, which has now been revoked. A number of representations received during the preparation of the JCS, notably to the Emerging JCS argued that a more dispersed pattern of development would be more appropriate.

The argument, largely made by the development industry is essentially that the large SUEs are complex and costly to deliver and consequently are unlikely to contribute the anticipated level of housing and jobs proposed in the JCS over the plan period. Instead, some argue that the JCS should distribute development across a wider number of sites and locations, including the Rural Area where market demand for housing is relatively strong and sites can be brought forward more quickly.

[65] Background Paper on Housing and Job Requirements for North Northamptonshire Spatial Options, NNJPU June 2011
[66] http://www.nnjpu.org.uk/publications/docdetail.asp?docid=1277

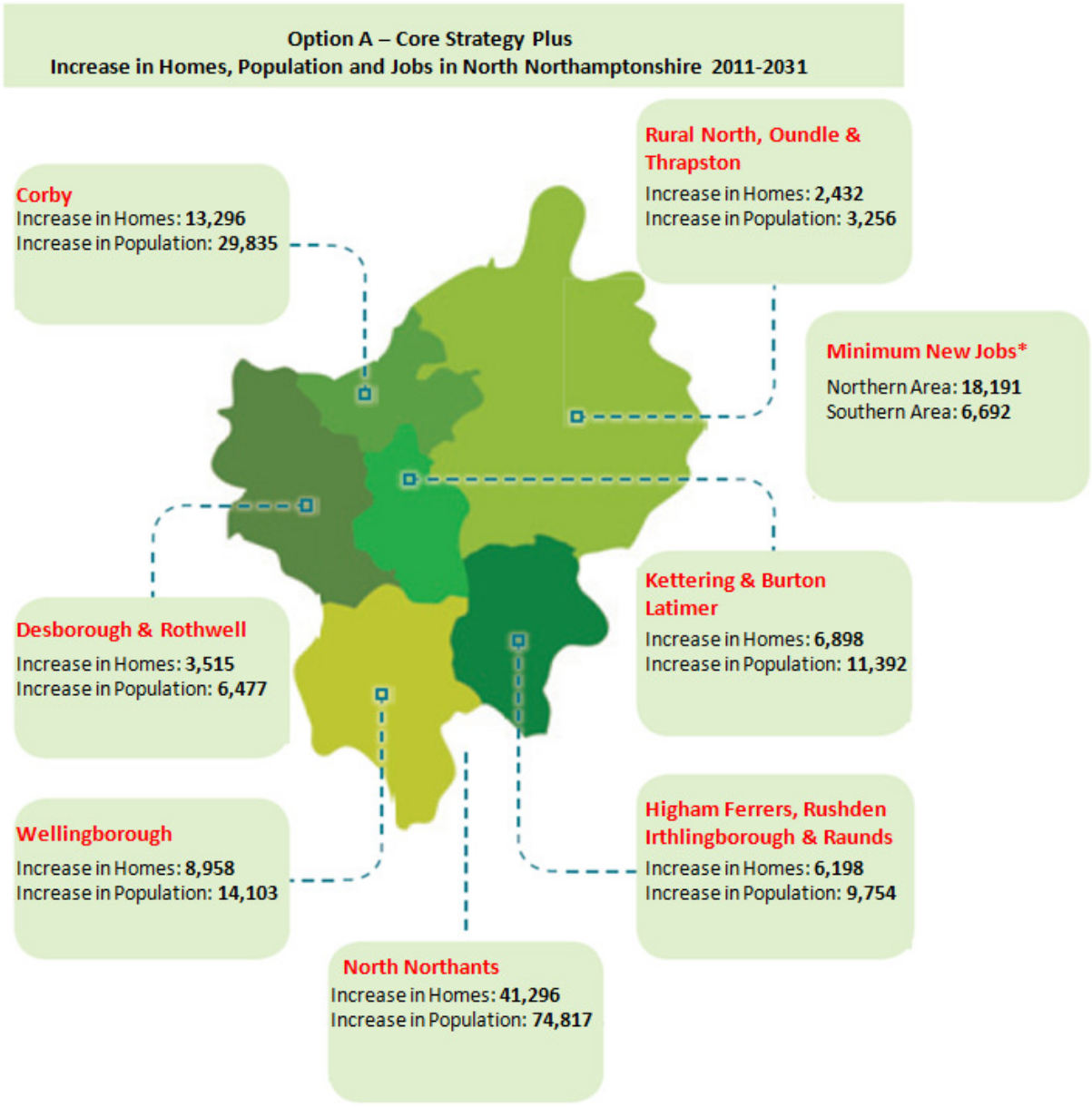
In view of these representations and the revocation of the Regional Plan, it was deemed necessary to assess a 'Dispersal Option' for the distribution of housing, jobs and associated infrastructure and services. This work was undertaken in 2014, as part of this SA.

In order to ensure that the appraisal process remained consistent, up-to-date and relevant, the four original spatial distribution alternatives were reassessed alongside the dispersal approach.

Each of the five reasonable alternatives that have formed the basis of this appraisal have been described below in sequence. For each of these alternatives, the assumptions for delivery have been made clear, distinguishing what is common to each approach and what makes each approach distinct. It will be noted that the total number of dwellings involved in Options A-D was around 41,300. This predated the OAN referred to above (used in Option E) but is not significantly different from the 'strategic opportunity' for 40,000 homes set out in the JCS.

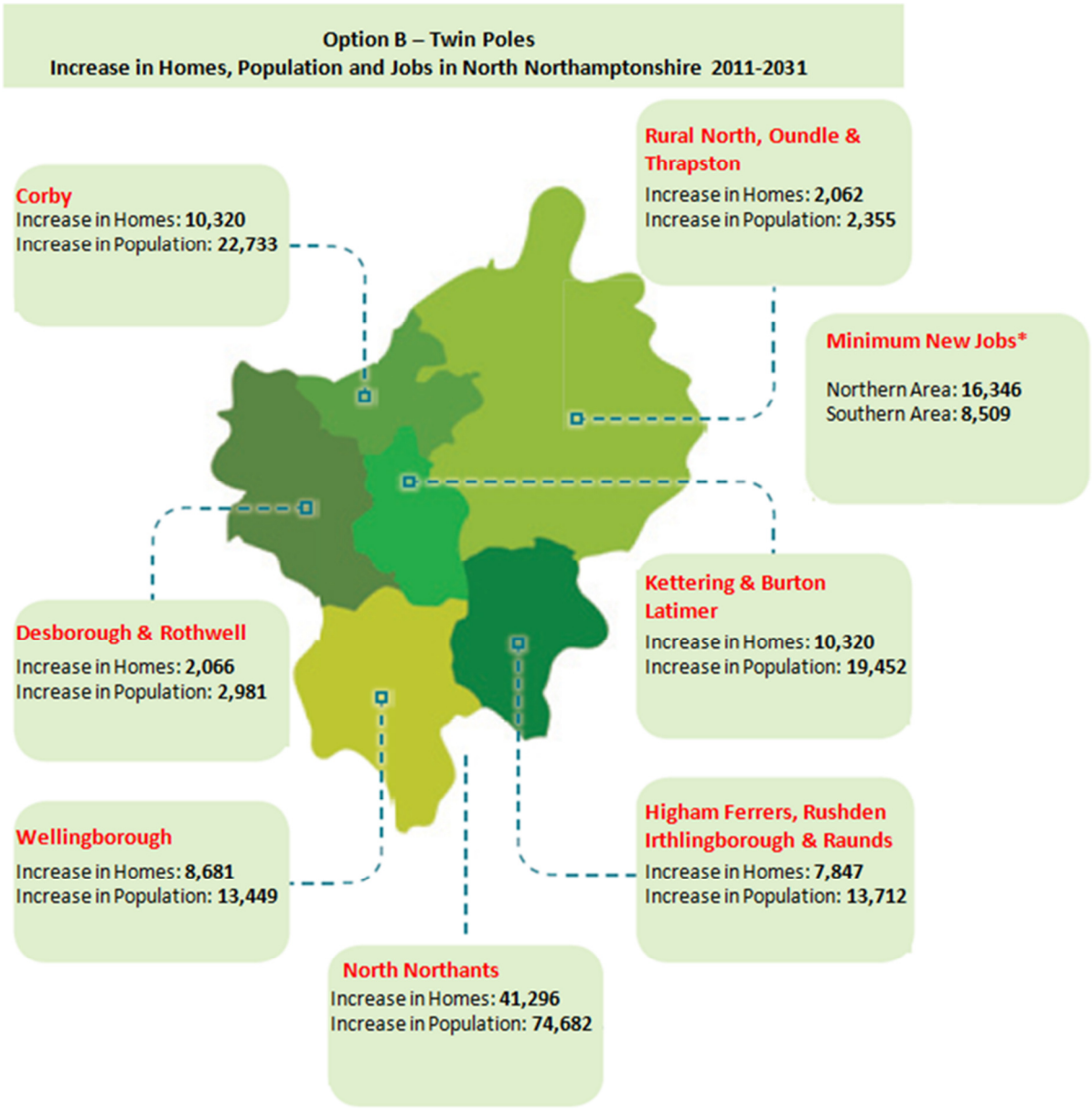
Alternative A: Core Strategy Plus

This alternative relied upon the existing consented schemes in Wellingborough, Corby and Kettering coming forward in the longer term. It is based upon the adopted Core Strategy but with a greater role for Rushden, and more detail for rural areas and small towns. The 'urban core' with the main towns of Corby, Kettering, Wellingborough and Rushden is the focus of development. A 'rural service spine' of settlements extending from Raunds up to Kings Cliffe meets day-to-day needs in the rural north east.



Alternative B: Twin Poles

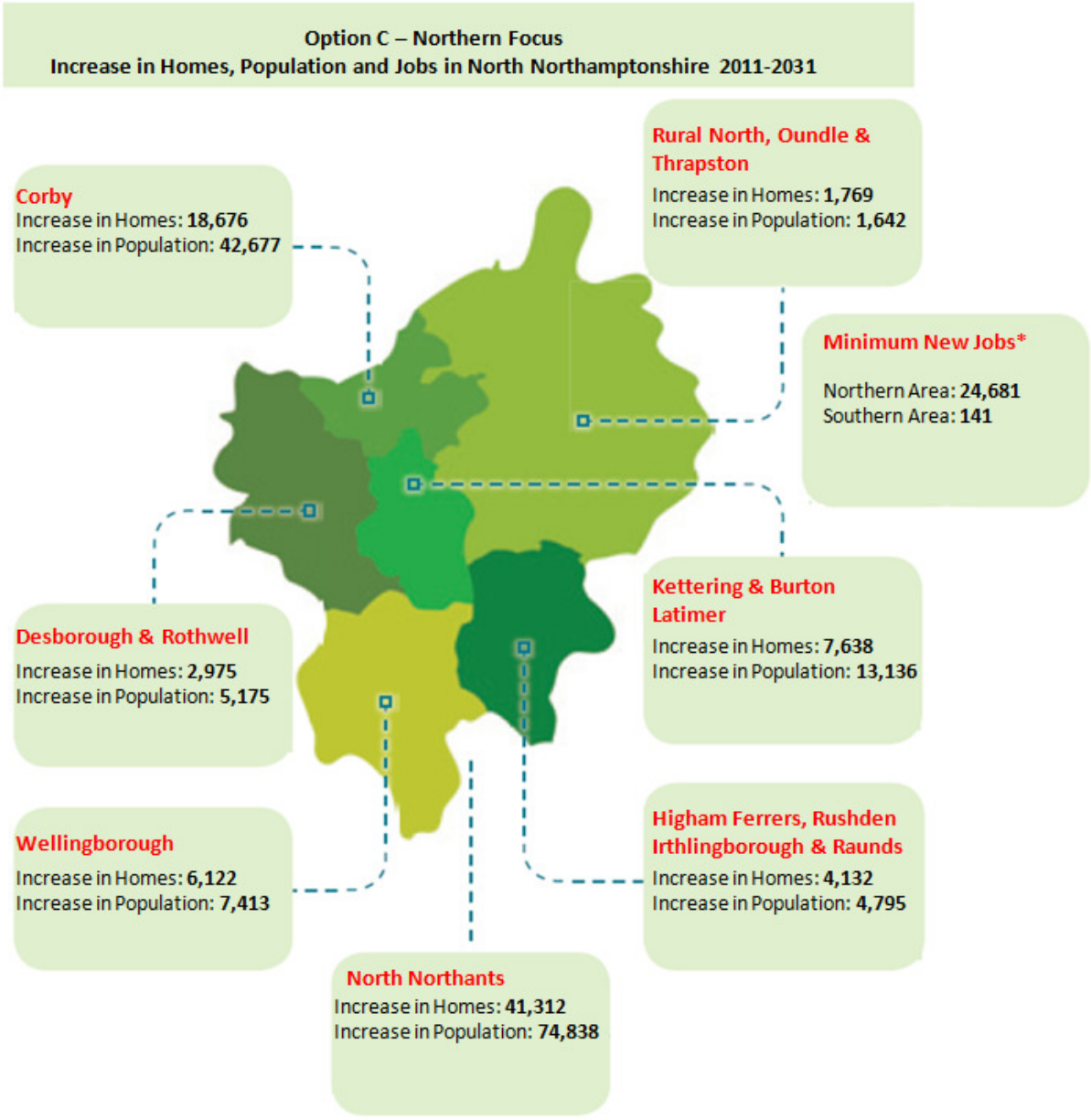
This alternative relied on existing consented schemes in Wellingborough, Corby and Kettering coming forward notably the SUEs. It allows for additional employment growth in the Southern area (Wellingborough, Rushden and surrounds) to reduce the amount of out commuting to Northampton. Instead of treating North Northamptonshire as a single functional area, this option builds on existing relationships and the distinctive character of the northern area (Corby/ Kettering and surrounding settlements) and the southern area (Wellingborough/ Rushden and surrounds). Greater self-reliance is sought within each of these areas, with significant housing and employment growth in the northern functional area and refocused growth with an employment emphasis in the southern functional area (reducing commuting to Northampton in particular). Rushden would play a greater role and accommodate more development under this option.



Alternative C: Northern Focus

This alternative sought an additional 5000 dwellings to be identified and delivered above the sites already identified and committed in Corby. Kettering relies on the delivery of consented schemes. As a northern focus there is less pressure for development in Wellingborough, with less growth coming forward than allocated in the adopted core strategy.

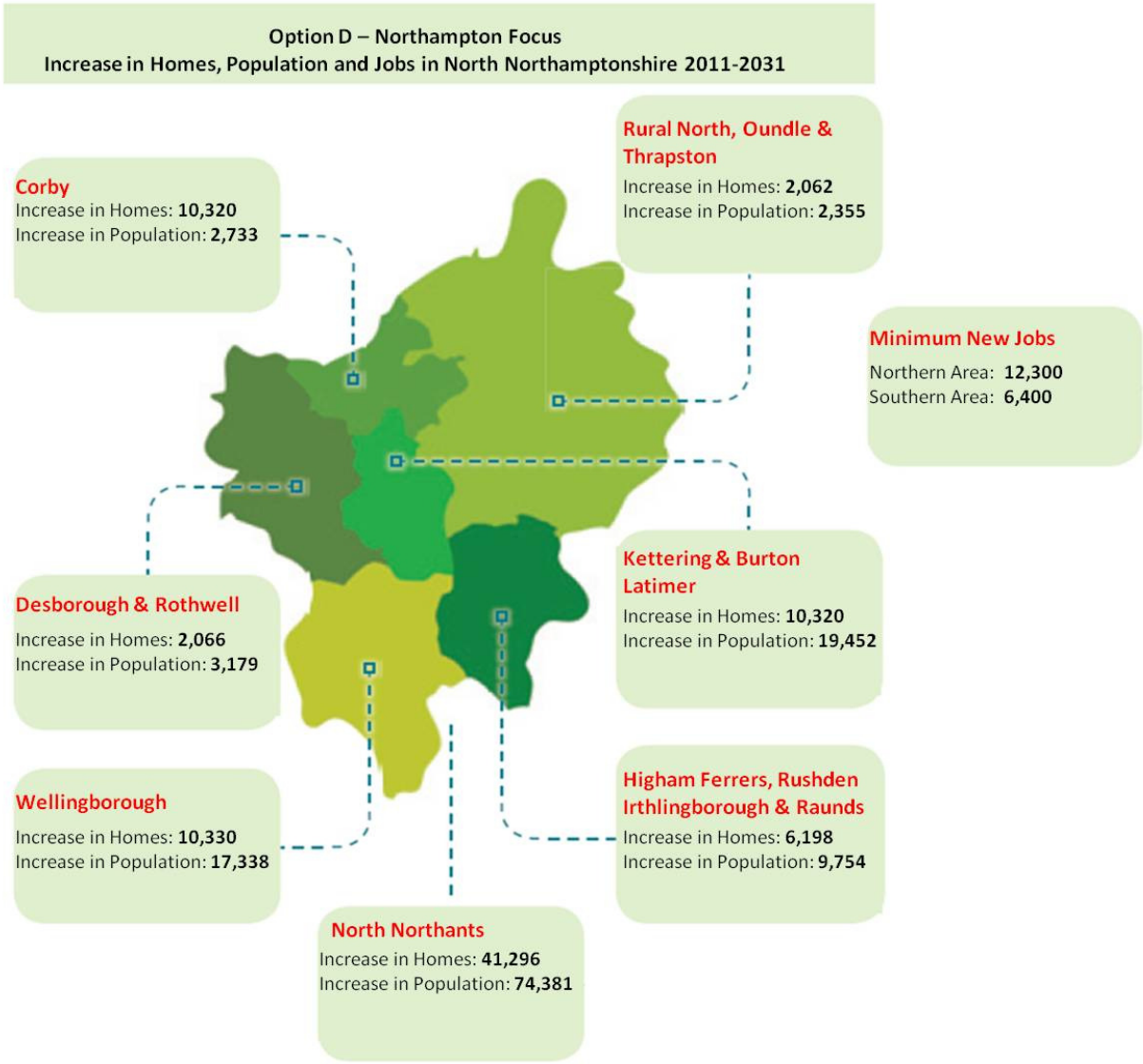
This alternative means a strong focus on Corby and Kettering/Burton Latimer for housing, jobs and retail growth as a counterpoint to Northampton and other larger centres such as Peterborough. The southern area (Wellingborough and the Four Towns area) would increasingly look to Northampton for jobs and services. This would mean locating the bulk of the housing and jobs growth in Corby/Kettering and focusing higher order facilities and retail growth in these two towns. This would require close complementary working as neither centre can, on its own deliver the scale of growth or the range of facilities required. The other towns would consolidate their roles as district or local service centres, with lower levels of growth except potentially at Burton Latimer.



Alternative D – Northampton (southern) Focus

This alternative was based on Northampton playing a stronger role as the county town and major regional centre, providing jobs and higher order facilities for many residents in North Northamptonshire. This would be supported by much improved transport links, including the Northamptonshire Arc Transit System (NATS) which would be bus based with longer term potential for a rail based system between Corby and Wellingborough. Growth would be focused in transport corridors and close to Northampton. Existing commuting patterns would continue, with fewer jobs created in North Northamptonshire than under the other alternatives.

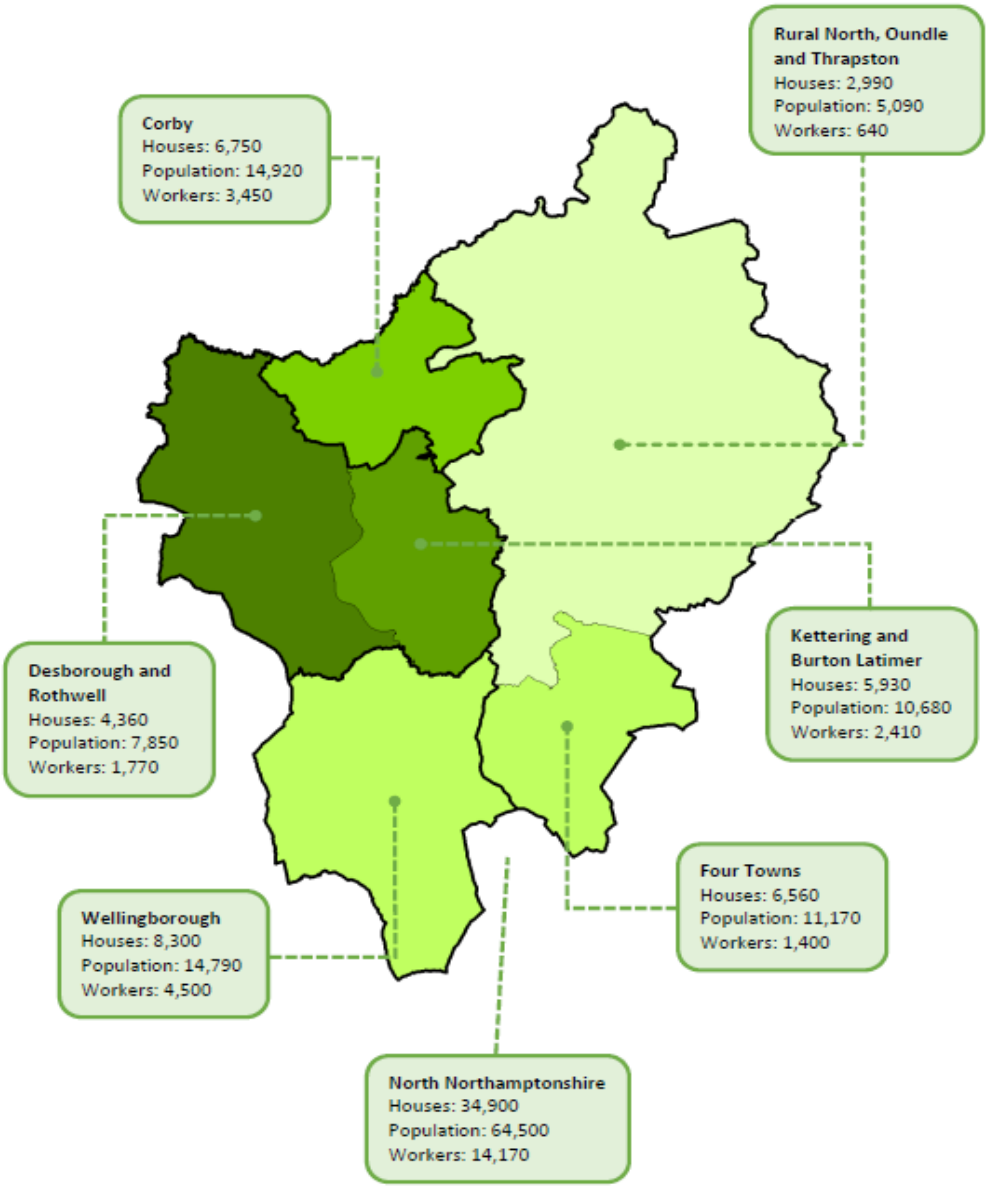
Existing commitments in Corby will meet the housing requirements of this alternative but Kettering would need to find sites for an additional 800 homes and Wellingborough 500. The Four Towns would be under pressure to accommodate around 2,000 homes in addition to existing commitments. With job numbers decreasing in the southern part of the North Northamptonshire there will be increasing reliance on Northampton for employment. This option is reliant on the Northamptonshire Arc transport system coming forward, ensuring high quality access from Northampton to Wellingborough, Kettering and Corby.



Alternative E: Dispersal

The dispersal approach is based on the pattern of development that would result if new housing is distributed across the area based on the resident population of places at the 2011 census. New jobs are assumed to be linked to the resulting growth in labour force, with additional growth in the southern sectors to tackle high levels of out commuting. Compared to the other alternatives, this spreads development requirements more widely between the Growth Towns, Market Towns and Rural Areas. It also involves a greater number of development sites, placing less reliance on the SUEs. Services and facilities are located as close as possible to where needs arise.

This alternative means that housing, jobs and retail development will be spread across North Northamptonshire with a significant amount taking place in the rural areas and market towns. Cluster villages are used as a focus for providing services and each local area meets its own needs. Development will still take place at the Growth Towns, however there will be less reliance on development at the SUEs than in the other alternatives due to assumptions about delays and slower rates of development.



Alternative	Summary of broad assumptions and implications
Core Strategy +	• A minimum of one new job would be created for each new worker. • Sufficient housing land has already been identified at Corby and Wellingborough, and more than enough at Kettering, but this relies heavily on the SUEs. • Improved north-south transport links between the four main towns and larger centres beyond. Priority road schemes including Corby Link Road and Isham By-pass/ Isham Wellingborough Improvement, helping facilitate a high quality bus system. • Facilities serving the wider area, such as healthcare / higher education, shared between towns.
Twin Poles	• A minimum of one new job would be created for each new worker, except in the southern area where twice this number of jobs would help draw back commuters from Northampton / Bedford. • Sufficient housing land has already been identified but this relies heavily on the SUEs. • Priority road schemes including Corby Link Road and A45 (Wellingborough -Thrapston) helping facilitate high quality bus system (NATS). • Facilities serving the wider area, such as strategic leisure, healthcare and higher education concentrated at Corby and Kettering for the North. Provision in Southern area strengthened where possible but residents look to Northampton and Kettering for some services.
Northern focus	• A minimum of one new job created for each new worker. Almost all of these new jobs would be concentrated at Corby and Kettering. • Corby would be the largest town. It would need to find sites for 5,000 new homes in addition to sites already identified and committed, requiring development within adjoining districts. • Wellingborough would accommodate less growth than currently planned, with consented SUEs being built more slowly or not at all. Desborough and Rothwell would continue to grow significantly but development at the other smaller towns and rural areas would be slower. • Greatly improved public transport links, particularly between Corby and Kettering (bus and rail based) and Rushden/ Wellingborough and Northampton (bus-based). Improved north-south transport links to enable residents of Wellingborough and Rushden to access higher order facilities at Kettering and Corby. • Facilities serving the wider area such as healthcare shared between Corby and Kettering. Local facilities maintained in the south but residents look to larger towns for key facilities/ services.
Northampton (Southern) Focus	• Only 0.75 jobs would be created in for each new worker. The bulk of these new jobs would be concentrated at Corby and Kettering. • The supply of land at the main towns relies heavily on the SUEs. The Four Towns would be under pressure to accommodate around 2,000 homes in addition to existing commitments. • Greatly improved public transport links between the main towns and Northampton, based on the Northamptonshire Arc Transit System (bus and potentially rail based). • Northampton regenerated as cultural heart, with leading retail, employment, health, leisure and higher education offer for North Northamptonshire residents. The main towns are the locations for higher order facilities within North Northamptonshire, as 'outposts' for facilities in Northampton such as the University.

Alternative	Summary of broad assumptions and implications
Dispersal	• Jobs would be dispersed across the area in line with the location of new housing. There would be no requirement for additional strategic employment sites. • The Dispersal Option assumes that the Sustainable Urban Extensions at the Growth Towns will deliver only half as much housing, starting later and developing more slowly than currently planned. • Requires over 6,800 additional homes in the rural areas of North Northamptonshire, with additional growth required in all East Northamptonshire and Wellingborough, less in Corby and Kettering staying broadly the same, compared to the draft JCS.. • Dispersed development could take up any spare capacity in existing infrastructure and services and may help support maintenance or improvement of local services such as schools and shops in villages. • Some strategic infrastructure including highway improvements would not be required as soon due to the slower rate of growth at the SUEs. However some key strategic items of infrastructure would remain the same and would be more difficult to deliver without critical mass of development. This lack of critical mass would result in less destination/ higher order facilities. • Regular public transport would be harder and more expensive to provide across a wider rural area leading to a reduction in modal shift.

14.3 Why has the preferred approach been selected?

14.3.1 *The preferred approach*

The JPU's preferred approach to housing growth and distribution is set out predominantly in Policies 28 and 29 of the Joint Core Strategy, which seek to deliver the objectively assessed housing need through an urban-focused strategy.

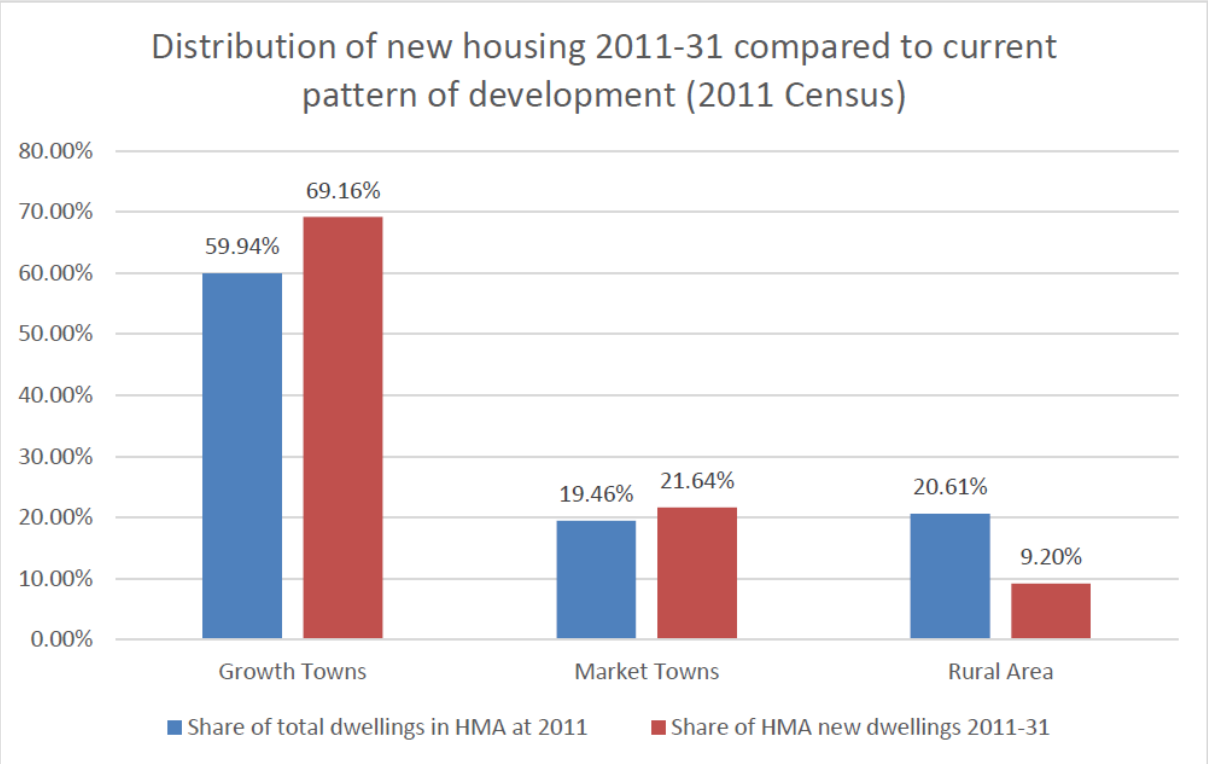
Table 4 in the Joint Core Strategy (reproduced below as Figure 14.1) sets out the housing targets for each district and North Northamptonshire as a whole. The Joint Core Strategy also seeks to take advantage of a strategic opportunity for growth at Corby, so the objectively assessed housing need will be exceeded, with 40,000 dwellings being delivered in total in North Northamptonshire rather than 35,000 objectively assessed need.

The distribution of housing is one of urban concentration, with a greater role for the growth towns and with the emphasis in the rural areas on meeting local needs (*as illustrated in Figure 14.2 below - which reproduces Figure 20 in the Joint Core Strategy*).

Figure 14.1: Housing targets in the Joint Core Strategy

Table 4 – Share of objectively assessed needs in the Housing Market Area		*Net additional dwellings 2011-21*	*Net additional dwellings 2021-31*	*Net additional dwellings 2011-31*
Corby Borough[94]	*Requirement*	*4,700*	*4,500*	*9,200*
	Strategic Opportunity	*(6,100)*	*(8,100)*	*(14,200)*
East Northamptonshire District		*3,400*	*5,000*	*8,400*
Kettering Borough		*4,400*	*6,000*	*10,400*
Borough of Wellingborough		*2,500*	*4,500*	*7,000*
North Northamptonshire		*15,000 (16,400)*	*20,000 (23,600)*	***35,000 (40,000)***

Figure 14.2: Distribution of housing under the preferred approach



14.3.2 *The Joint Planning Unit's reasoning*

Housing requirements

The emerging JCS Policy 28/Table 5 (August 2012) included a total North Northamptonshire requirement for 40,500 dwellings (2011-31). Following consultation feedback to both the Emerging JCS, and the Interim Housing Statement, and advice from a Senior Planning Inspector, the JPU commissioned further work by Cambridge Centre for Housing and Planning Research (CCHPR) to provide demographic evidence to help to identify the objectively assessed housing need for the area. This work rolled forward the latest CLG (2011 based) household projections, adjusting them upwards to take account of the impacts of the recession in depressing rates of household formation (referred to as "2008 tracking" projection). CCHPR also modelled a "Corby adjusted" scenario with accelerating levels of in-migration into the Borough of Corby.

The CCHPR household projections were reviewed in the light of economic and market evidence as required by the NPPG. The JPU's conclusion has been that CCHPR demographic projections provide a robust and objective assessment of housing needs in the HMA and there is no economic or market evidence to warrant a higher figure being used in the JCS. Policy 28 uses the "2008 Tracking" projection as the basis for an OAN for 35,000 dwellings in the period to 2031. In addition, it uses the "Corby adjusted" projections to support the aspiration for a still higher level of growth at Corby, giving a strategic opportunity figure of 40,000 dwellings in the HMA as a whole.

It is noted that the latest ONS (2012 based) population projections for North Northamptonshire in 2031 are 6.6% lower than the CCHPR "2008 Tracking" projection. This suggests that the next CLG household projections will be lower than the minimum requirements set out in the JCS.

Distributing the housing requirements

Policy 28 seeks to align the share of the HMA total to be delivered in each district as closely as possible with the demographic evidence and also to the aspirations of the partner authorities previously set out in the emerging Joint Core Strategy (JCS), including the on-going regeneration aspirations of Corby Borough Council.

The JCS provides an urban-focused strategy in which the bulk of development is to be directed where it will support urban regeneration; be most accessible to jobs, shops and services; and make most efficient use of existing and new infrastructure/ services and of previously developed land. As part of this approach, the spatial strategy section of the JCS aims to ensure that development in the villages is focussed on meeting locally arising needs and aspirations rather than for significant inward migration, which is directed to more sustainable locations at the Growth Towns followed by the Market Towns.

Significant commitments already exist in the urban area, to deliver the urban focussed strategy. The principal Sustainable Urban Extensions (SUEs) at the Growth Towns will play an important part in delivering these plans, accounting for almost 17,000 dwellings identified in trajectories to meet the requirement of 35,000 dwellings set out in policy 28. Elsewhere in the urban area, the distribution of development is largely based on existing commitments and identified capacity.

It is considered that requiring a level of housing in the rural area, significantly above the requirements set out in Table 5 of the JCS (or locally assessed needs/ aspirations), would undermine both the urban focussed spatial strategy of the JCS and the localism agenda that the JCS seeks to support in the rural areas. The mixed urban/ rural character of North Northamptonshire means that few villages are not within reasonably close proximity of a Growth Town or Market Town which is able to meet at least some of the housing needs arising in the villages. The extent to which this will be the case is a matter for local judgement but is likely to be a particular consideration for villages with 5 km of a town, upon which they are reliant for employment and many services and facilities.

14.3.3 *Discussion of the SA findings*

The preferred option arising from the assessment of reasonable alternatives was a hybrid option, with the overall approach being most closely aligned to the 'Core Strategy Plus' option, but the distribution of housing weighted to the northern area as in the 'Northern Focus' option and greater self-reliance for employment in the southern area as in the 'Twin Poles' option. This formed the basis of the 'Emerging JCS' that was consulted on between August and October 2012 that year (response reported to the Joint Committee on the 29th November 2012 and 31st January 2013). Following further work, including the confirmation of the requirement level of housing to meet OAN, the Emerging JCS approach has evolved into Pre-Submission JCS.

Although alternative E (Dispersed development) may present very attractive opportunities for housing development for the development industry, it is clearly the least sustainable alternative when considered against the full range of sustainability factors. This scenario would be likely to have a significant negative effect on sensitive biodiversity habitats, landscapes and agricultural land. It would also locate significant numbers of people in areas that have poor accessibility to services and jobs. Whilst this could help to support the local economies where growth occurred, it is unlikely that the critical mass would be created to support enhanced connectivity and higher order public services. This could also place a significant burden on infrastructure capacity, without providing the critical mass of development to support new infrastructure investment. This is considered to be a significant negative effect.

Alternatives A-D are difficult to distinguish in some ways as each involves the same amount of housing and employment growth (apart from alternative D for employment), albeit distributed differently. Essentially, each option would have positive effects on housing delivery and the health and wellbeing of communities, but the effects would be more pronounced in different areas under the various alternatives. It is considered that alternatives A and B perhaps spread the benefits (and potential adverse effects) of development more evenly compared to alternatives C and D, and are therefore slightly more balanced in terms of supporting population and employment growth across North Northamptonshire in a way that benefits communities.

Alternative D is considered less positive compared to alternatives A-C as it would not promote self-reliance in employment, which is considered to be a significant negative effect.

A focus on the North associated with alternative C could have the potential for a significant positive effect on biodiversity as it would direct some growth away from the towns in close proximity to the Nene Valley Gravel Pits SPA (compared to the current pattern of growth). This would help to minimise recreational pressure and other disturbances to wildlife habitats in the South. However, an increased amount of development in the North (or South for that matter), could have the potential for a greater cumulative effect on landscape and culture heritage.

The detailed appraisal findings for each alternative are presented in **Appendix II**.

15 EMPLOYMENT GROWTH AND DISTRIBUTION

15.1 Why have alternatives not been considered for this issue?

15.1.1 *Employment targets*

It has been considered appropriate to plan for the level of employment growth by relying upon a robust and up-to-date evidence base. It has not been considered necessary to appraise a range of alternative strategies for employment growth. The outline reasons for this are discussed below.

Detailed assessment of demographic forecasts has allowed job targets to be refined for each district. These remain close to those in the 2012 emerging JCS, with a total target of a minimum net increase of 31,100 net additional jobs between 2011 and 2031 across North Northamptonshire.

The economic strategy in the JCS seeks to increase the self-reliance of North Northamptonshire by providing for enough jobs to match the forecast growth in labour force plus an additional number in the southern area to reduce further the reliance on out-commuting. This approach brings the East Northamptonshire jobs/worker ratio to the same level as the rest of North Northamptonshire.

A review of employment forecasts indicates that achieving more than 24,000 jobs will be challenging. Nevertheless, the JCS targets are considered to be aspirational and realistic, particularly if the strategic opportunity for growth is realised at Corby. It is not considered realistic to set a higher minimum jobs target, although the targets are minima and will not constrain growth if additional employment opportunities come forward in line with the policies of the JCS.

A lower job target would not increase the self-reliance of North Northamptonshire by achieving a more sustainable jobs/worker balance. This is a key strategic aim of the JCS and a lower target would exacerbate existing levels of out-commuting, notably in the southern area. This would increase pressure on transport infrastructure, as well as reducing levels of inward investment into North Northamptonshire.

15.1.2 *Distribution of employment*

It is not considered necessary to appraise distinct strategies for the distribution of employment land, as this is captured within the assessment of spatial strategies presented in section 14.

There is a requirement to plan for an appropriate balance between housing and employment growth. Each of the alternatives appraised for strategic housing (see section 14) therefore set out an appropriate level and distribution of employment land in relation to the distribution of housing development and strategic opportunities.

Section 16 of the SA Report discusses how the SA considered a range of strategic sites for employment land. This provides an assessment of the alternative site options for delivering the preferred spatial strategy (i.e. it provides a bottom-up assessment).

16 STRATEGIC SITE OPTIONS

16.1 Why have alternatives been considered for this issue?

The Pre-submission North Northamptonshire Joint Core Strategy (the Plan) allocates land of a strategic scale for housing and employment purposes in order to increase the certainty of the delivery of the strategic objectives of the Plan over the period from 2011 to 2031.

The Joint Planning Unit sought views on whether the Plan review should identify and provide more guidance on strategic sites through both the Regulation 25 consultation (March 2009) and the Issues consultation (February-March 2011). Both consultations illustrated significant support, particularly from the development industry and the partner local planning authorities, for identifying and allocating strategic sites. Nearly 50% of local residents who responded to the specific question at the Issues consultation stage were of the opinion that the replacement Plan should identify larger than local employment sites. The Emerging JCS (2012) subsequently identified strategic sites, and further consultation was undertaken as part of the consultation on Strategic Housing and Employment sites (August-October 2013).

It is essential that site allocation decisions can be justified (including through a consideration of reasonable alternatives) and that they are supported by a clear audit trail.

16.2 What are the reasonable alternatives?

The Joint Planning Unit has prepared a background paper on Strategic Housing and Employment sites[67] . This document sets out the methodology for selecting a short list of site options for appraisal (i.e. the reasonable alternatives in SA Terms), and the methodology for assessing these sites. This assessment took account of sustainability issues, using the SA framework as a basis for identifying relevant site appraisal criteria. This has been consulted on at two stages in the plan making process, to allow detailed testing, and ensure the consideration of reasonable alternatives.

This section summarises the approach taken, the methodology and the findings presented in the background paper (which should be referred to for further detail).

16.2.1 *Setting a threshold for sites*

It was concluded that a threshold of 500 or more homes or 5ha of employment land would provide a portfolio of sites which would collectively be sufficient to deliver the Plan's spatial vision and act as key locations for investment.

16.2.2 *Identifying the long list of sites*

To ensure that reasonable alternatives have been considered in developing the Plan a long list of 99 sites that meet the threshold criteria of 500 dwellings or 5ha of employment land was compiled from the following sources:

- Strategic Housing Land Availability Assessment (SHLAA);
- Northamptonshire Strategic Employment Land Assessment (SELA);
- Sites promoted in response to consultation at various stages in the preparation of the Plan;
- Sites promoted as alternative strategic sites through development of the adopted Core Strategy;
- Sites identified in emerging Development Plan Documents prepared by the partner local planning authorities; and
- Other sites identified by partner local planning authorities.

[67] *North Northamptonshire Joint Planning Unit, Background Paper on Strategic Housing and Employment Sites (January 2015)*

16.2.3 *Initial site sieve*

An initial sieve was undertaken in order to identify those sites that would be considered potentially unsuitable for development. The sieve sought to establish whether or not any of the sites had a constraint of such significance that the site should not be taken forward for further consideration. This process was used to eliminate sites where development would be likely to be precluded for one or more of the following reasons:

- The site does not accord with the spatial strategy of the Pre-Submission Plan.
- The development would be within either flood zone 2 or flood zone 3.
- Development would be likely to have a significant adverse effect on a site of international or national biodiversity or geological value.
- Development would be likely to have a significant adverse impact on an important archaeological or historical site.
- Development would be located within the Health and Safety Executive inner zone of a major hazard chemical installation or pipeline.

After applying this initial sieve, 24 sites were discarded from further assessment (mostly because they did not accord with the spatial strategy). The rationale for rejecting these 24 sites can be found in the JPUs background paper on Strategic Housing and Employment sites.

16.2.4 *The reasonable alternatives*

The remaining shortlisted sites were assessed using a more detailed site appraisal methodology that was linked to the Sustainability Appraisal Framework. Appendix 3 of this SA Report sets out the site appraisal methodology that was applied and how sustainability criteria were incorporated into the assessments.

It should be noted that a number of strategic sites (i.e. mainly the SUEs) are already committed (i.e. have been granted planning permission), and though they form a significant part of the spatial strategy, are not therefore appropriate to consider as reasonable alternative site options.

Therefore, a detailed assessment has only been undertaken for those uncommitted sites (42 sites) on the short list (i.e. the reasonable alternatives).

Further detailed assessments and comments are provided for each site option within the Background Paper.

16.2.5 *Consultation on the assessments*

As part of the evidence base to support the Emerging Draft Plan a draft Background Paper (2012) was published to explain the assessments that had been undertaken. This provided stakeholders with an opportunity to consider the accuracy of the assessments and provide additional information, where available.

The consultation resulted in the promotion of several new sites and comments on the draft Background Paper which generally focused on the assessment made against the list of criteria. In some instances there was support for the assessment whilst in other instances the findings were questioned and amendments proposed by the respondent. The representations prompted a review of the Background Paper, the methodology and of sites proposed for allocation in the Plan.

In August 2013 a consultation paper on strategic housing and employment sites was published along with an updated draft Background Paper (August 2013). This period of interim consultation provided an opportunity for stakeholders to comment on the revised methodology, whether the revised list of strategic sites included the most appropriate sites, and whether they considered there to be better alternatives.

This consultation process, together with further evince received since the close of the consultation period resulted in a re-examination of the assessment of each site, and in a number of instances this has resulted to changes to the commentary, site area and scoring. This information, alongside a response to specific responses is set out in the updated Strategic Sites Background paper (January 2015).

16.3 What is the preferred approach?

Aside from sites that are already committed, the Joint Core Strategy allocates/identifies the following strategic sites/broad locations as preferred options for employment and / or housing:

- A proposed SUE at West Corby (Policy 32);
- A proposed SUE at Rothwell North;
- Deenthorpe Airfield Area of Opportunity[68] (Policy 14);
- Broad location of Rushden East SUE[69] (Policy 33);
- Proposed strategic employment sites without planning permission or current allocation (Policies 23 and 29);

    - Land at Cockerell Road *(employment)*
    - North Kettering *(employment)*
    - Kettering South *(employment)*
    - Nene Valley Farm *(employment)*
    - Rockingham MRC Enterprise Area *(employment)*.

16.3.1 *The Joint Planning Unit's reasoning*

The Strategic Sites Background Paper presents a detailed proforma for each site option that has been assessed; each of which concludes with a recommendation whether to allocate the site or not (*including the rationale for this decision*). These conclusions are detailed and specific to each site, so have not been replicated in this SA Report. However, a summary of the scores has been presented in Appendix IV to allow for a high level comparison between site options.

Tables 16.1-16.4 below present a summary of how the sites perform in relation to the sustainability criteria (included within the strategic sites assessment background paper; and summarised in Appendix III and IV of this SA Report), and how this has been reflected (or not) in the decision making process, alongside the other site assessment criteria in the strategic site assessment process, which together provide the rationale for the allocation/non allocation of sites.

Allocated sites are listed within the cells shaded green, non-allocated sites are listed in the cells shaded red.

Table 16.1 Employment site options

Area	Employment Sites	Reflecting SA findings
Corby	- Land at Cockerell Road. - Rockingham Enterprise Area.	The outcomes of the decision making process reflect the findings of the SA (as presented in the strategic sites assessment). The two allocated employment sites in the Corby urban

[68] This is considered to be a unique opportunity for development with no reasonable alternatives. This issue is discussed in Chapter 17.
[69] Alternatives for this allocation were not considered as part of the strategic assessment. Given the proposed designation of Rushden as a Growth Town in the Plan, work has been undertaken to identify a preferred direction of growth for a sustainable urban extension to the town. That work is detailed elsewhere and it is therefore unnecessary to include an assessment in the Background Paper of the potential sites around Rushden. This issue is discussed in Chapter 17.

Area	Employment Sites	Reflecting SA findings
	- Gretton Brook Road, Corby. - Land at Geddington Road.	area are fairly accessible to services and facilities, and do not present any serious constraints to development. Whilst the unallocated sites score fairly similarly (to the allocated sites) in terms of access to services and facilities, they are more poorly related to the existing urban area and present greater constraints in terms of biodiversity and potential effects on landscape.
East Northants	- Nene Valley Farm, Rushden.	The outcomes of the decision making process reflect the findings of the SA. Both of these employment site options would lead to the loss of agricultural land, and are moderately constrained by a variety of factors including biodiversity and heritage assets. However, the rejected site is more poorly related to the urban area and is more likely to have a significant effect on heritage and biodiversity.
	- Thrapston - Land to North East (E of A605).	
Kettering	- Kettering North (Weekley Wood Development Area). - Kettering South.	Each of the employment site options (both allocated and rejected) present similar constraints. It is not apparent that any site should be allocated in preference to another on the grounds of the SA findings. The planning reasons for allocating the preferred sites in Kettering have been presented in the Strategic Sites Background Paper.
	- Burton Latimer - East of Higham Rd. - Desborough - Stoke Rd. - Rothwell - land south east of A14/A6jcn. - Rothwell - Land adj cemetery (south of A14).	
Wellingborough	- Wellingborough – North of Finedon Rd Industrial Estate.	The site scores fairly poorly across the range of sustainability criteria, with particular constraints in terms of visual landscape, potential impacts on heritage assets and potential impacts on neighbouring land uses. I

Table 16.2 Mixed use site options

Area	Mixed use sites	Reflecting SA findings
Corby	- West Corby.	Each of the alternative mixed-use sites in Corby score fairly similarly against the majority of SA criteria. However, Corby South East does not deliver a scale of development that Corby West would deliver.
	- Corby West (additional land). - Corby South East. - South West Corby.	

East Northants	- Irthlingborough North - West of Crow Hill/ north of A6. - Thrapston West (A14 jcn 2). - Middle End, Raunds.	Each of these site options is more seriously constrained in terms of visual impact compared to the allocated employment site at Nene Valley Farm. These sites are also mixed-use, which make a direct comparison with sites considered purely for employment use difficult.
Kettering	- West Kettering. - Land at Kettering Hub. - Kettering East (additional land).	Kettering East already provides a comprehensive mixed-use scheme in this urban area. The SA findings do not suggest that these rejected sites present particular opportunities for sustainable development that would justify further mixed use development in Kettering. This accords with the decision to reject these sites at this stage.
Wellingborough	- Wellingborough - Wilby Grange. (Prospect Park) - Wellingborough - Stanton Cross. (Additional land to East). - Wellingborough - west (between Wilby and Park Farm Industrial Estate).	Having regard to the location of the development and the scale of existing commitments in Wellingborough it is not considered appropriate nor necessary to allocate further land at Stanton Cross in order to achieve the scale of growth envisaged in the Pre-Submission Plan. Neither of the other two site options scores particularly well in terms of the SA criteria, with particular concerns over visual impact and separation from the existing urban area.

Table 16.3 Residential site options

Area	Residential sites	Reflecting SA findings
Corby	- Weldon Park extension. - Land south of Great Oakley. - Land at New Grange Farm, Stanion.	None of these sites have been allocated, as it is not considered necessary to allocate further land for housing beyond that which would be secured by West Corby. Weldon Park extension and Land at New Grange Farm perform very similarly to West Corby in terms of the overall performance against the SA framework. However, these sites seem to be less constrained by heritage assets. However, these alternatives would not deliver mixed-use development (instead being largely residential), and would deliver significantly fewer dwellings than Corby West. Therefore, it is considered that they are not reasonable alternatives (for the delivery of housing in Corby) to Corby West as when considered in isolation and would not have the wider sustainability benefits provided by mixed use development, alongside infrastructure provision.

East Northants	- Duchy Farm, Chelveston Rd, Higham Ferrers. - Raund West.	These sites perform moderately against the SA framework, with the exception of potential significant adverse effects on sensitive landscape in particular. Notwithstanding this, however, existing commitments and completions, together with an emerging site of a non-strategic scale at Ferrers School, make it unnecessary to allocate further land of a strategic scale beyond the physical boundaries of the urban area in order to meet the Plan requirement of 560 dwellings at Higham Ferrers.
Kettering	- Rothwell North - Burton Latimer - Land to the south-east. - Burton Latimer North. - Burton Latimer – South-west. - Desborough West. - Desborough - Humfrey's Lodge. - North Kettering A. - North Kettering B.	Sites in Burton-Latimer and North Kettering present significant sustainability constraints. The sites at Desborough both score fairly well in terms of the overall sustainability of the site. However, the Plan requires provision to be made for 1,590 dwellings at Desborough; existing commitments (including Desborough North), completions and sites of a smaller scale identified by the Borough Council make it unnecessary to allocate a further site of a strategic scale to achieve this level of growth. Further development (particularly at Humfrey's Lodge) would also be of a scale which conflicts with the emphasis for directing development towards the growth towns.

Table 16.4 'Miscellaneous' site options

Area	Employment / mixed use or residential	Reflecting SA findings
Corby	Land west of Uppingham Road.	It is not clear what this site would be promoted for. Besides this, there is the potential for significant adverse effects on heritage assets and the character of the settlement edge. The SA findings do not suggest that the land presents a particular opportunity for sustainable development, which accords with the decision to reject this site at this stage.

17 STRATEGIC DEVELOPMENT IN RUSHDEN AND DEENTHORPE

17.1 A strategic opportunity for a new village at Deenethorpe Airfield

It is against the background of constrained development opportunities in the Rural North of East Northamptonshire that the potential opportunity has been identified to create an exemplar new village including 1000-1500 homes at Deenethorpe Airfield. This would be in addition to growth delivered through an urban-focused spatial strategy elsewhere in North Northamptonshire.

The Joint Planning Unit does not consider that there are any reasonable alternatives to the delivery of this strategic opportunity. The 'outline reasons' for this are discussed below.

The opportunity to consider the creation of a new village is considered a special opportunity arising in this location because of the commitment of the Deene Estate to use its landholdings and long term stewardship of the development to deliver an exemplar settlement, built to the highest possible standards of design and sustainability, with generous green space and a mix of homes, jobs, community facilities and services to create a balanced and cohesive community that is well integrated with the existing network of settlements. In particular, the single historic ownership of the site will facilitate substantial investment in infrastructure and community facilities early in the scheme.

No other proposals for new villages have been promoted during consultation on the JCS at the Issues stage (2011) or in relation to the emerging policies (2012) and therefore no reasonable alternatives have been identified. While East Northamptonshire Council (ENC) has been supportive of the Deenethorpe Airfield proposals, the other local planning authorities have expressed reservations regarding a new village as a sustainable alternative or addition to delivering urban-focused growth within their areas.

The specific circumstances surrounding Deenethorpe Airfield are such that this is not proposed as a strategic site allocation or alternative site proposal. Instead, the policy identifies it as an opportunity to be evaluated against a stringent set of policy requirements which would ensure that the subsequent development is an exemplar 'green living' sustainable development, delivering the highest possible development standards in terms of green infrastructure, tree planting, biodiversity gain, local community facilities and a balanced local community.

17.2 Identifying a strategic location for a Sustainable Urban Extension in Rushden

The background to the decision to identify Rushden East as the proposed broad location for a new Sustainable Urban Extension (SUE) is set out in the Rushden Sustainable Urban Extension Background Paper (August 2013). The decision took place in two stages:

1. Choosing the future spatial development strategy for Rushden in the JCS review; i.e. should the replacement Plan continue with the current designation of Rushden as a "Smaller Town" from the 2008 CSS, or should the town be designated a "Growth Town"?

2. If Rushden is designated a Growth Town, where should future new development around the town take place?

17.2.1 *Rushden as a "Growth Town"*

The designation of Rushden as a Growth Town was agreed early on during the Plan preparation process. The Joint Planning Committee (JPC) endorsed the designation of Rushden as a "Growth Town" in January 2012. This approach was substantiated through East Northamptonshire Council's (ENC's) decision to approve the Rushden Lakes retail development and the Secretary of State's support for Rushden Lakes (June 2014). The Secretary of State explicitly supported and endorsed Rushden's proposed status as a Growth Town in the Joint Core Strategy.

17.2.2 *Proposed direction of growth*

Given the proposed designation of Rushden as a Growth Town in the Joint Core Strategy review, work has been undertaken to identify a preferred direction of growth for a sustainable urban extension to this town. This work is detailed in the Rushden Sustainable Urban Extension Background Paper (August 2013) and it is therefore unnecessary to repeat the assessments set out in the background evidence base for potential sites around Rushden.

Previous assessments have been undertaken as to the relative sustainability of different directions of growth around the Rushden/ Higham Ferrers urban area. The Urban Extensions Study (August 2006; updated June 2012) demonstrates the relative sustainability of different directions of growth. This is supplemented by the Urban Structures Study (Consultation Draft, August 2013 and previous draft versions 2011-13), which specifically examines the connectivity between any proposed urban extension and the existing urban area.

Together, these studies provide a comprehensive analysis for the relative sustainability of potential alternative directions for growth around Rushden. The site appraisal criteria utilised to assess the different directions of growth covers a range of issues including: *access to services, access to jobs and public transport, biodiversity, landscape, cultural heritage, flooding, soil and land, minerals and town centres.*

It is considered that this framework is compatible with the site appraisal framework utilised in the Background Paper on Strategic Housing and Employment Sites (*Given the cross-over in the sustainability objectives and criteria in both frameworks*).

ENC considered the evidence base, and agreed Rushden East as the preferred location for a sustainable urban extension (Planning Policy Committee, 18 June 2012); a decision subsequently endorsed by the Joint Planning Committee (3 July 2012). Since 2012 ENC has been actively pursuing the development of a Rushden East urban extension; e.g. through setting up a Rushden East Project Board in early 2014 to take forward masterplanning of the scheme,

Alternative site proposals were also put forward during the previous consultations. These were considered by the Joint Planning Committee (25 July 2013) which reiterated support for Rushden East as the preferred location for growth. Overall, the assessment work undertaken does not indicate that any particular option (i.e. alternative site) is significantly more sustainable than either of the other two options. As such, it is concluded that all reasonable alternative locations for the development of a sustainable urban extension at Rushden have been assessed (and thus do not need to be reassessed as part of the SA process for the Joint Core Strategy Review).

18 ALTERNATIVE OPTIONS FOR OTHER POLICY APPROACHES

Many 'thematic' planning policies can be prepared on the basis of a robust evidence base without the need to rigorously assess a series of reasonable alternatives as part of the SA at each stage of policy development.

However, it was deemed a useful exercise to undertake a broad appraisal of the sustainability implications of different options for the development of policies relating to the issues that the Local Plan would be addressing. This exercise was undertaken as part of the development of the Emerging JCS (2012).

Table 18.1 below summarises the options that were identified and assessed to help inform the policy development process for a range of plan topics. A brief description of the predicted effects of each option is provided, and the recommended approach is identified for each policy. It is important to remember that in some instances these options are not mutually exclusive, so the preferred approach could be a combination of several options.

An Interim SA Report was produced that presented a detailed appraisal of each of these policy options. This was published for consultation alongside the Emerging North Northamptonshire Joint Core Strategy, in August 2012. It is considered that this was a very useful way of assessing the effects of alternatives at this stage of the plan preparation process, and allowing further testing to be undertaken illustrating the extensive work that has informed the Plan development.

Table 18.1 Alternative policy options

Draft Policy	Options	The JPUs recommended approach
1. Historic Environment	1. Retention of current CSS policy 13 2. More specific / detailed criteria based policy	Option 2 is the preferred approach as it identifies local assets, places more emphasis on how planning applications will be considered, and is informed by latest guidance and best practice. It is therefore likely to have a more positive and significant effect than Option 1, the existing policy of the current CSS.
2. Landscape	1. Retention of current CSS policies 5 and 13 2. More specific /detailed criteria based policy.	Option 2 is the preferred approach as it offers stronger protection and enhancement of landscape character and biodiversity than Option 1. However, it is recognised that Option 2 could reduce the land available for housing and employment by seeking to more strongly retain the separate identities of settlements and referring specifically to the protection of tranquil areas such as Rockingham Forest.
3. Biodiversity and Geodiversity	1. Retention of current CSS policies 5 and 13 2. More specific /detailed criteria based policy.	Option 2 is the preferred option as it offers a more proactive approach to biodiversity protection and enhancement by providing more detail on how a net gain of biodiversity can be achieved. It is also acknowledged that biodiversity protection and enhancement can help to mitigate as well as adapt to climate change effects e.g. by reducing flood risk. However, it is recognised that Option 2 could reduce land available for housing and employment growth in particular by seeking to reverse habitat fragmentation.
4. Water environment and flood risk management	1. Retention of current CSS policies 5, 13 and 16. 2. More specific /detailed criteria based policy.	Option 2 is the preferred approach as it provides stronger flood protection than Option 1 along with additional benefits to biodiversity. Option 2 is informed by discussions with the Environment Agency, refers to the statutory requirements of the Water Framework Directive and includes specific flood risk management proposals.

Draft Policy	Options	The JPUs recommended approach
5. Community assets	1. Retention of current CSS policies 1, 6 and 13. 2. More specific /detailed criteria based policy.	Option 2 is the preferred approach as it proposes a clearer framework for a) protecting and improving existing facilities and services and b) providing new facilities and services thus likely to result in more social benefits than Option 1. By seeking to reduce the need to travel, Option 2 can also have a minor positive effect on transport and climate change.
6. Designing sustainable places	1. Retention of current CSS policies 13 and 16. 2. More specific /detailed criteria based policy.	Whilst both options score similarly, Option 2 is the preferred approach as it takes forward the key elements of the current CSS policies as well as reflects the principles identified in the Urban Structures Study work and in latest Government guidelines. However, the removal of Secured by Design scheme in Option 2 is considered a step back from current policy with potential adverse effects regarding crime. It's re-insertion in Option 2 is therefore recommended.
7. Sustainable buildings	1. Retention of current CSS policy 14. 2. Improved policy Approach reflecting current issues relating to development economics.	Option 2 is the preferred approach as it sets out requirements to a wider range of developments than in Option 1, including targets for achieving Code of Sustainable Homes and BREEAM certification. Option 2 also reflects the proposed changes to Building Regulations Part L which will come into the force in a few years. As a result, Option 2 is likely to benefit various sustainability objectives more significantly than Option 1. On the other hand, it is acknowledged that Option 2 would impose additional burden on developers.
8. Allowable solutions	1. Rely on national policy. 2. New Policy to combat climate change on a local level	Option 2 is the preferred approach. By translating national policy into local policy, it is the only option likely to lead to significant benefits above the baseline position, including reductions in greenhouse gases.
9. Provision of infrastructure	1. Retention of current CSS policy 6. 2. New policy - to address concern identified in 2008 Inspector's Report, update in line with NPPF and allow flexible solutions.	Option 2 is the preferred approach as it provides more scope for pooled contributions to local, sub-regional and regional infrastructure. As such it is more capable of addressing the cumulative impacts of smaller developments as well as wide ranging impacts of developments on water resources, landscape, air quality and flooding than Option 1.
10. Network of rural and urban areas	1. Retention of current CSS policies 1 and 9. 2. Retention of current policy 1/table 1, but expand to define comprehensive settlement roles. 3. Full revision - expand to define comprehensive	Option 4 is the preferred approach as it maintains a settlement hierarchy which would protect smaller rural communities from development pressure, but also provides flexibility for communities to decide on the level of growth they want, as long as it can be justified and meets sustainability objectives. It is also recognised that all options could lead to adverse environmental effects e.g. on biodiversity, landscape and climate change, the significance of which will depend on the location, type and size of any development proposed.

Draft Policy	Options	The JPUs recommended approach
	settlement hierarchy	
	4. Simplified settlement hierarchy – four categories of settlement	
	5. Simplified settlement hierarchy – three categories of settlement.	
11. Settlement design principles	1. Retention of current CSS policies 9, 13 and 16.	Option 2 is the preferred approach as it provides a new comprehensive policy informed by latest guidance and best practice, including the Urban Structures Study and the NPPF. It is therefore likely to have a more positive effect on housing, community and liveability than Option 1.
	2. More specific/detailed criteria based policy Utilising the work of the Urban Structures Study.	
13. Rural exceptions	1. Retention of current CSS policies 1 and 9.	Option 2 is the preferred approach as it provides more flexibility for communities to decide on the level of growth they want, as long as it can be justified and meets sustainability objectives. It is also recognised that all options could lead to adverse environmental effects e.g. on biodiversity, landscape and climate change, the significance of which will depend on the location, type and size of any development proposed.
	2. Single policy relating to rural exceptions, affordable housing and residential development in open countryside	
	3. Criteria based policy for rural exceptions.	
14. Deenethorpe Airfield Area of Opportunity	1. No scope for new village / Maintain a strong strategy of urban concentration	Alternative 2 is the preferred approach. The rationale for selecting this approach (including consideration of alternatives) is discussed in more detail in Chapter 17 of this SA Report.
	2. Specifically identify Deenethorpe as an allocation	
15. Well-connected towns, villages and neighbourhoods	1. Retention of current CSS policy 3.	Option 2 is the preferred approach as it places greater emphasis on local and neighbourhood connectivity, reflects the key principles identified in the Urban Structures Study and highlights the importance of green infrastructure in enhancing connectivity. It is therefore likely to have a more positive and significant effect than Option 1 particularly on accessibility, health, liveability and climate change.
	2. More specific/detailed criteria based policy.	
16. Connecting the network of settlements	1. Retention of current CSS policy 3.	Option 2 is the preferred approach as it aligns with the Northamptonshire Transportation Plan, specifies how connections between settlements should be carried out and introduces a transport use hierarchy with pedestrian first. It is therefore likely to have a more positive and significant effect than Option 1, particularly on air quality, climate change, the
	2. More specific/detailed	

Draft Policy	Options	The JPUs recommended approach
	criteria based policy.	historic environment and landscapes.
17. Connecting North Northamptonshire with surrounding areas	1. Retention of current CSS policy 2. 2. More detailed policy updated to take account of new strategic transport projects.	Option 2 effectively updates Option 1, reflecting the Northamptonshire Transportation Plan and is therefore the preferred approach. It is however recognised that both options could have adverse effects on biodiversity, landscape, soil, land and flood risk as both policies would lead to the development of new road schemes. These road schemes would be subject to an Environmental Impact Assessment.
18. HGV parking	1. Retention of current CSS policy 2. 2. Criteria based policy. 3. Identification / allocation of specific site.	Both Options 2 and 3 are considered to offer a better strategy for allocating HGV parking sites than Option 1. Option 2 is considered slightly more favourable as it advocates the use of local knowledge in advancing suitable sites. Due to the nature of HGV parking, it is recognised that there will always be some areas/communities that will suffer some degree of adverse effect on amenity and wellbeing.
19. Delivery of Green Infrastructure	4. Retention of current CSS policy 5. 5. More detailed policy direction that sets out new GI initiatives.	Option 2 is the preferred approach as it provides for Green Infrastructure (GI) and specifies strategic GI goals. It is therefore more likely to ensure the protection and enhancement of the GI network than Option 1, which does not make it clear as to whether GI will be maintained, provided or enhanced.
20. Nene and Ise Valleys	6. Retention of current CSS policy 5. 7. More detailed policy direction that sets out specific GI initiatives.	Option 2 is the preferred approach as it specifically focusses on the requirements for improvements to the Nene and Ise Valley, identified as a priority site. It is therefore likely to have a greater beneficial effect on the site than Option 1, which is only a general policy.
21. Rockingham Forest	8. Retention of current CSS policy 5. 9. More detailed policy direction that sets out specific GI initiatives.	Option 2 is the preferred approach as it specifically focusses on the requirements for Rockingham Forest, identified as a priority site. It is therefore likely to have a greater beneficial effect on the sites than Option 1, which is only a general policy.
22. Delivering Economic Prosperity	1. Retention of current CSS policy 8 and 11. 2. Criteria based policy / more detailed policy direction.	Option 2 is considered more flexible and is thus the preferred approach. It does not restrict employment growth to regeneration/urban extension sites nor does it restrict relocation from inappropriate premises. Thus Option 2 is more likely to allow all communities to benefit from employment opportunities. Employment growth is however, likely to give rise to adverse environmental effects, particularly where greenfield development is proposed. These will require mitigation.
23. Distribution of New Jobs	1. Retention of current CSS policies 8 and 11.	Option 2 is the preferred approach as it identifies specific sites in towns with economic potential across North Northamptonshire instead of restricting employment

Draft Policy	Options	The JPUs recommended approach
	2. Criteria based policy/more specific. More detailed policy direction with strategic land allocations.	opportunities to main settlements as is the case with Option 1. As a result Option 2 allows more communities to benefit from employment growth and thus retain their skill set. In addition Option 1 is more likely to result in significant adverse effects on landscape, air quality and land use. Notwithstanding, the policy should also seek to limit the amount of Greenfield land released for development. NB: Strategic employment sites options have been assessed as part of a site assessment exercise.
24. Strategic Distribution	1. Retention of current CSS policy 11. 2. Criteria based policy/more specific. Greater focus upon strategic distribution as a major economic growth sector.	Option 2 is the preferred approach as it recognises the importance of strategic distribution to the North Northamptonshire economy and has developed a set of criteria for allocating land to strategic distribution, including good connections to the strategic road network and accessibility to the local workforce. It therefore has the potential to benefit more communities than Option 1, which restricts strategic distribution to the Eurohub. It is also recognised that any development could have adverse environmental effects e.g. on air quality, environmental pollutions, climate change, heritage and landscapes. However, the significance of these effects will depend on location of the site and design standards.
25. Rural economic development and diversification	1. Retention of current CSS policy 9 (i.e. no specific reference to rural areas) 2. New policy with enhanced focus upon economic development in rural areas, each assessed on its individual merits.	Option 2 is the preferred approach as it recognises the importance of allowing employment opportunities in rural areas, including appropriate conversion of rural buildings and specific requirements for rural enterprise such as farm and equine developments. This is likely to have long-term benefits for local businesses. However, it is recognised that development in rural areas is likely to have adverse effects relating to biodiversity, loss of best and most versatile agricultural land, flood risk, heritage assets and landscapes, which will require mitigation.
26. Renewable energy	1. Retention of current CSS policy 14. Does not cover standalone renewable energy. 2. Criteria based policy seeking to encourage and support large scale technologies. 3. Criteria based policy/more specific. Only relating to site specific proposals for an energy park.	Option 2 is the preferred approach as it provides more opportunities for developing large scale renewable energy installations than both Option 1 and 3, and is thus likely to result in more positive and significant effect on energy use and climate change. It is also recognised that such proposals could have adverse impacts on landscape, biodiversity, noise and odour, which will require mitigation. A more proactive option could be taken involving establishing areas where installations may be acceptable i.e. a hybrid of Options 2 and 3.

Draft Policy	Options	The JPUs recommended approach
27. Rockingham Motor Racing Circuit Enterprise Area	1. Retention of current CSS policy 11. 2. Criteria based policy/more specific to Rockingham MRC.	Option 2 is the preferred approach as it sets high standard criteria regarding sustainability and public realm improvements for any development in Rockingham MRC Enterprise Area. It is therefore more likely to have wide-ranging benefits on employment, wealth creation and skills than the more generic Option 1 policy.
28. Housing Requirements and Strategic Opportunities	1. Retention of current CSS policies 7 and 10. 2. Criteria based policy/more specific. Two levels of growth identified – local need and strategic opportunities through the urban extensions.	Option 2 is the preferred approach as it plans for both natural and strategic growth. As such it enables local authorities to maintain a growth ambition but also safeguards communities from having developments imposed on them if strategic development opportunities do not come forward. Option 2 is therefore likely to have a more positive and significant effect on housing than Option 1. It is recognised that both options could lead to adverse environmental effects, the significance of which will depend on the location, type and size of development proposed. NB: A more specific and detailed assessment of alternative housing strategies is included within Section 14 of this SA Report.
29. Distribution of New Homes	n/a	A series of detailed alternatives were assessed and consulted upon as the Joint Core Strategy Review was being undertaken. A discussion of these strategies is included in Section 14 of this SA Report.
30. Housing mix and tenure	1. Retention of current CSS policy 15. 2. Set targets for specified mix type and tenure based on SHMA. 3. As above but taking account of both identified needs and demand / aspirations.	Option 3 is the preferred approach as it would provide for both identified needs and aspirational growth. It is therefore likely to have a more positive and significant effect on housing and social inclusion than Option 2, which only considers needs and Option 1, which is considered to be more profit driven.
31. Gypsies and travellers	1. Retention of current CSS policy 17. 2. Specify number of pitch provision based on updated evidence.	Option 2 is the preferred approach as it aims to meet the housing needs of gypsy and traveller communities to a greater degree than Option 1, by specifying the number of pitches required based on updated evidence. However, it is also recognised that mitigation will be required for various potential sustainability effects when allocating sites.
32. Infrastructure delivery mechanisms	1. Retention of current CSS policy 6. 2. More consistent approach taking account of recent legislative changes and mechanisms for delivering strategic infrastructure.	Option 2 is the preferred option as it is considered to be the only option capable of providing the wide range of infrastructure required across North Northamptonshire to meet housing and economic growth levels and the only option that will allow pooling of contributions towards local and strategic requirements to address the cumulative impacts of development.

PART 3: WHAT ARE THE APPRAISAL FINDINGS AND RECOMMENDATIONS AT THIS CURRENT STAGE?

19 INTRODUCTION (TO PART 3 OF THE SA)

Chapter 21 presents a robust appraisal of the North Northamptonshire Joint Core Strategy (Pre-Submission Version). Chapter 22 then discusses overall conclusions at this stage.

20 METHODOLOGY

The appraisal identifies and evaluates 'likely significant effects' on the baseline / likely future baseline associated with the Local Plan approach, drawing on the sustainability topics and issues identified through scoping (see Part 1 of this document) as a methodological framework.

The effects of the plan considered 'as a whole' have been presented. .

Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the policy measures under consideration. The ability to predict effects accurately is also limited by understanding of the baseline and (in particular) the future baseline.

In light of this, where likely significant effects are predicted this is done with an accompanying explanation of the assumptions made.[70] In many instances it is not possible to predict likely significant effects, but it is possible to comment on the merits of the Plan approach in more general terms.

It is important to note that effects are predicted taking into account the criteria presented within Regulations.[71] So, for example, account is taken of the duration, frequency and reversibility of effects as far as possible. The potential for 'cumulative' effects is also considered.[72] These effect 'characteristics' are described within the appraisal as appropriate under each sustainability topic.

21 APPRAISAL FINDINGS

The appraisal of the Plan is set out below within a series of tables – one for each of the sustainability 'topics' used as the basis for scoping.

To give the appraisal structure, each of the key chapters within the draft plan is assigned one of the following symbols in-line with predicted 'broad implications'. It is important to note that these symbols are not used to indicate significant effects.

Scoring - ✓ positive effect ✗ negative effect / – no effect

Significant positive effect ***shaded green***

Significant negative effect – ***Shaded red***

The appraisal tables do not present a separate score for each individual policy. Rather, the appraisal tables summarise the cumulative effects of each of the Policies within specific sections of the Plan. A commentary of the effects of each policy is provided and analysis of the policies is grouped together into the relevant sections of the Joint Core Strategy.

Table 21.1 below sets out the key chapters and policies within the Pre-Submission Joint Core Strategy.

[70] As stated by Government Guidance (The Plan Making Manual, see http://www.pas.gov.uk/pas/core/page.do?pageId=156210): *"Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification."*
[71] Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004
[72] In particular, there is a need to take into account the effects of the Local Plan acting in combination with the equivalent plans prepared for neighbouring authorities. Furthermore, there is a need to consider the effects of the Local Plan in combination with the 'saved' policies from the [Old Local Plan].

Table 21.1 Policy content within the Pre-Submission Joint Core Strategy.

Section	Policies
Core Policies	
	1. Presumption in favour of Sustainable development[73]
Protecting and enhancing assets	2. Historic Environment 3. Landscape Character 4. Biodiversity & Geodiversity 5. Water Environment, Resources & Flood Risk Management 6. Development on Brownfield Land and Land affected by contamination 7. Community Services & Facilities
Ensuring high quality development	8. North Northamptonshire Place Shaping Principles 9. Sustainable Buildings & Allowable Solutions
Securing infrastructure and services	10. Provision of Infrastructure
Spatial Policies	
The network of Urban & Rural Areas	11. Network of Urban & Rural Areas 12. Town Centres and Town Centre Uses 13. Rural Exceptions 14. Deenethorpe Airfield Area of Opportunity
Connections within and beyond North Northamptonshire	15. Well Connected Towns, Villages & Neighbourhoods 16. Connecting the Network of Settlements 17. North Northamptonshire's Strategic Connections 18. HGV Parking
The Green Infrastructure Framework	19. The Delivery of Green Infrastructure *Special policy areas* 20. Nene and Ise Valleys 21. Rockingham Forest
Delivering Economic Prosperity	22. Delivering Economic Prosperity 23. Distribution of New Jobs 24. Logistics 25. Rural Economic Development and Diversification 26. Renewable Energy 27. Rockingham MRC Enterprise Area
Delivering Homes	28. Housing Requirements & Strategic Opportunities 29. Distribution of new homes 30. Housing Mix and Tenure 31. Gypsies and Travellers
Development Principles for Strategic Sites	
Development Principles for Strategic Sites	32. West Corby SUE 33. Rushden East SUE 34. Cockerell Road, Corby 35. Nene Valley Farm, Rushden 36. Land at Kettering North 37. Land at Kettering South

[73] Policy 1 'Presumption in favour of sustainable development' has not been assessed individually, as it provides a broad context for the Joint Core Strategy as a whole.

21.1 Social progress which meets the needs of everyone

	Core Policies		Spatial Policies					Strategic Sites
SA Objectives	Protecting and enhancing assets	Ensuing high quality development	The rural and urban areas	Connections within and beyond North Northamptonshire	The Green and Blue infrastructure framework	Delivering economic prosperity	Delivering Homes	Development principles for strategic sites
Accessibility	✓	✓	✓	✓ / ✗	✓	✓ / ✗	✓ / ✗	✓
Housing	-	✓	✓	✓	-	-		✓
Health	✓	✓	✓	✓	✓	✗	✗	-
Crime	✓	✓	✓	✓	-	✓	✓	-
Community	✓	✓	✓	-	-	-	✓	✓
Skills	-	✓	-	✓	-	✓	✓	✓
Liveability	✓	✓	-	✓	✓	?	✓	✓

21.1.1 *Accessibility*

Core Policies

The Joint Core Strategy (through Policy 7) outlines the need for development to support and enhance community facilities and assets by providing new ones on site where necessary or contributing towards accessible, new or enhanced community facilities. This would have a positive effect in terms of ensuring such facilities are accessible to the population of North Northamptonshire.

Policy 8 highlights the need for new development to be well connected and to integrate with existing cycle, pedestrian, public transport and vehicular movement networks. The policy also sets out the need to prioritise the needs of pedestrians, cyclists and public transport users. Implementation of this policy would have a positive effect on the baseline in relation to accessibility.

The importance of delivering new infrastructure as part of new development is set out in Policy 10. The Policy identifies that new development must be supported by the timely delivery of infrastructure, services and facilities to support the development planned in North Northamptonshire. New infrastructure identified in the supporting text includes roads and public transport services, which would have a positive effect in terms of enhancing accessibility.

Spatial Policies

The overall spatial strategy outlined within the Joint Core Strategy (through Policy 11) is to focus major regeneration and growth in employment, housing, retail and higher order facilities on the growth towns. New development of an appropriate scale will be directed towards the existing market towns and villages. The co-location of new development that would occur as a result of delivering this spatial strategy would have a positive effect through ensuring that job opportunities and key services and facilities are accessible to new housing in the area.

Policy 11 also highlights that the identified SUEs will provide strategic locations for housing and employment development within North Northamptonshire. The proposed SUEs are located on the edge of existing settlements, which should ensure that existing facilities in these areas are accessible to the new housing developed.

Policy 12 sets out the need to support the vitality and viability of town centres through improving access to the town centres for pedestrians, cyclists and public transport users. This would have a positive effect in terms of improving accessibility links to town centres.

Deenethorpe Airfield is identified as an area of opportunity for the creation of a new 'garden village' of between 1000 and 1250 dwellings (Policy 14). The Policy identifies the need to maximise integrated transport choice and connections to services and facilities in neighbouring settlements. This would ensure that the new development is accessible from surrounding areas including Corby and Oundle.

Increased development could lead to increased traffic and congestion (at least in the short term), which could have a negative effect on some communities, especially those that have poor access to private transport.

However, the Joint Core Strategy sets out the need to deliver well connected towns, villages and neighbourhoods within North Northamptonshire, particularly through sustainable transport methods. This would have a positive effect in terms of improving accessibility and transport links within and around the area. Policy 15 outlines a number of measures for strengthening connectivity and encouraging the use of sustainable methods of transport, including walking, cycling and public transport. Policy 16 outlines the need to strengthen: connections between towns in the Northamptonshire Arc and links between the market towns and train stations. The policy also sets out the need to improve the road infrastructure in the area.

Policy 17 outlines the need for further investment in rail (throughout upgrading the rail infrastructure) and bus services in North Northamptonshire. This would have a positive effect in terms of enhancing the provision of sustainable transport in the area.

The need to protect and enhance the green infrastructure framework within North Northamptonshire is set out within the Joint Core Strategy (Policies 19 – 21). The development of North Northamptonshire's green infrastructure would have a positive effect in terms of promoting public access to green infrastructure.

The Joint Core Strategy sets out the need to deliver a net minimum 31,100 jobs throughout North Northamptonshire (Policy 22). New employment uses would be delivered within and around existing settlements in the area, which would have a positive in terms of ensuring job opportunities are accessible (Policy 23).

21.1.2 *Housing*

Core Policies

Core policies that seek to enhance design (Policy 8) and protect environmental assets will help to create attractive places within which housing is delivered. This is positive, but the effects are not considered to be significant in the context of delivering housing.

Policy 10 sets out that development must be supported by the timely delivery of infrastructure, services and facilities necessary to meet the needs arising from the development and to support the development of North Northamptonshire. . This is positive, because the planned provision of new infrastructure (*including roads, utilities, waste management facilities, public transport services and community facilities*) would help to support and accommodate the delivery of new housing.

Spatial Policies

The overall spatial strategy outlined within the Joint Core Strategy (*predominantly through Policies 11 12, 23 and 29*) is to focus major regeneration and growth in employment, housing, retail and higher order facilities on the growth towns. New development of an appropriate scale will be directed towards the existing market towns and villages. In total, the Joint Core Strategy outlines the need to deliver 35,000 dwellings over the plan period (Policy 28) with a strategic opportunity for an additional 5,000 dwellings at Corby. The delivery of new housing

in the locations identified in the Joint Core Strategy should lead to a **significant positive effect** on the baseline relating to this SA objective.

As well as the spatial strategy and consequent distribution of development set out in the Joint Core Strategy, a number of other policies would have a positive effect in terms of supporting access to a decent affordable home.

Policy 30 encourages developments to be designed so as to allow for cost effective alterations. This could have a positive effect by increasing the potential for extensions and alternations to homes as an alternative to new builds.

Policy 31 identifies a requirement to provide accommodation for gypsies, travellers and travelling show people in the period up to 2022. The provision of accommodation for gypsies, travellers and travelling show people would ensure that the housing needs of this particular group would be met.

Policy 11 also highlights that the identified SUEs will provide strategic locations for housing and employment development within North Northamptonshire. Implementation of this policy would ensure that housing is delivered in sustainable locations.

Policy 12 sets out the need to support the vitality and viability of town centres through enabling additional residential uses on appropriate sites. This would have a positive effect in terms of increasing the number of houses delivered in North Northamptonshire.

Policy 13 highlights that rural exception housing schemes (that are purely affordable unless an element of market housing is essential to enable delivery of development) may be permitted in rural areas where a set of identified criteria is met. Implementation of this policy would have a positive effect in terms of encouraging the delivery of affordable housing in rural areas.

Deenethorpe Airfield is identified as an area of opportunity for the creation of a new 'garden village' of between 1000 and 1250 dwellings (Policy 14). Delivery of new housing in this area would contribute towards the amount of housing provided over the plan period in North Northamptonshire.

The Joint Core Strategy sets out the need to deliver well connected towns, villages and neighbourhoods within North Northamptonshire, particularly through sustainable transport methods. The plan identifies the need for improvements to road and rail infrastructure and to bus services (Policies 16 and 17). These improvements would support the delivery of new housing over the plan period.

21.1.3 *Health*

Core Policies

Collectively, the core policies are likely to have a generally positive effect on wellbeing and health by promoting protection of and improvements to the environment. In particular:

- Policies 2, 3, 4, 7 and 8 by seeking to protect and/or improve heritage assets, landscape value and tranquillity, open space and biodiversity will have knock-on beneficial effects on residential and recreational amenity and thus on wellbeing/health;
- Policy 5 by seeking to reduce flood risk will also help avoid the stress experienced by residents and employers during a flood event;
- Policy 6 will have a positive effect on health by ensuring that development proposed on contaminated land is safe and viable for future users;
- Policies 7 and 10 should also help reduce potential air quality issues by seeking to reduce the need to travel (see air quality section below); and

- Policy 8 includes the requirements to ensure the "quality of life and safer, healthier communities" and "making safe and pleasant street and spaces".

These principles are already outlined in the NPPF, so it is likely that development would be required to be mindful of these issues anyway. Therefore, whilst these policies are inherently positive, their effects on the baseline are not considered to be significant.

Spatial Policies

The spatial strategy seeks to focus the majority of development to the growth towns, with managed growth at smaller towns and only limited development at rural areas. The development of housing and employment is mainly concentrated at large urban extensions around each of the growth towns: Corby, Kettering, Wellingborough and Rushden (Policies 11, 23, 28 and 29). These developments could help to support a reduction in deprivation (which is generally highest in these towns) by providing enhanced access to jobs and affordable housing. The delivery of SUEs could also improve access to local opportunities for recreation, and local facilities (*for example new schools and shopping precincts*). However, some of the SUEs are not within close proximity to areas of need/deprivation. So whilst new residents would have access to a healthy, pleasant environment, some existing communities would be unlikely to benefit. It is also possible that some communities will be unsupportive of new housing and economic development, and thus development in their communities could have an adverse effect on their wellbeing.

It is considered that the additional housing and employment development identified for Corby (*as detailed in Policies 12, 23, 27 and 28*) should help to generate a **significant positive effect** to this area by further boosting access to jobs and housing, facilitating new community facilities and enhancing access to high quality recreational space.

A number of other policies in the Joint Core Strategy would have positive effects on wellbeing for specific social groups. For example:

- policies 13, 14 and 30 seek to provide access to decent affordable housing thus improving the wellbeing of low income households; *and*

- in addition, Policy 31 seeks to ensure that Gypsy and Traveller sites do not put a risk to the health and wellbeing of occupants through unsafe access to the site, poor air quality and unacceptable noise or unacceptable flood risk or contaminated land.

The economic strategy developed in Policies 22-27 seeks to diversify jobs and deliver higher quality employment for the local workforce by promoting the priority sectors of Renewable and Low Carbon Energy and Green Technologies, High Performance Technologies and Logistics. This strategy has the potential to narrow wage gaps between residents, which would have a positive longer term effect on health and wellbeing.

The Joint Core Strategy also seeks to achieve greater self-reliance for jobs, services, retail and leisure by supporting the function of the growth towns, market towns and key villages. This ought to have a positive effect in terms of strengthening local economies and building as sense of community.

The spatial strategy encourages active travel through various policies. In particular, Policies 8, 15-17 seek to rebalance design towards pedestrians, cyclists and public transport by enhancing the available infrastructure and improving journey ambiance. Policies 19-21 seek to remedy local deficiencies in open space provision / quality and to enable easy access on foot, horseback or bicycle to the Rockingham Forest by local residents. As a result of these policies residents in North Northamptonshire have better opportunities to become more active, which would have positive knock on effects for health.

Policies 15-17 also seek to focus infrastructure development to support the additional employment, housing and retail developments particularly through improved transport infrastructure. These planned infrastructure improvements will help relieve existing

communities from increased traffic with knock-on beneficial effects on air quality (and therefore health) and on journey ambiance (and therefore wellbeing).

On balance, the Joint Core Strategy is considered likely to have a positive effect on the health and wellbeing of communities by improving access to housing and employment and seeking to diversify the economy (which could help to improve access to better paid jobs). Coupled with policies that seek to improve accessibility and environmental quality, it is considered that **significant positive effects** would be likely.

Development of housing, employment sites and infrastructure could have localised effects on specific communities by affecting amenity, potentially affecting air quality (in the short term at least), and through a perceived loss of community. However, the policies within the Joint Core Strategy should ensure that these effects are mitigated. It is also important to remember that housing growth and development would still occur anyway in the absence of the revised Joint Core Strategy, and would be less likely to come forward in a planned manner and in most cases development proposes enhancements to the environment and social infrastructure. Therefore, these effects are not considered to be significant.

21.1.4 *Crime*

Core Policies

Policies 2 – 7 in the '*Protecting and enhancing assets'* section of the Core Strategy each seek to create better environments for the population of North Northamptonshire. It is difficult to attribute significant effects to any particular policy; but the cumulative effect of these policies should help to create safer, more desirable places to live. This could have an indirect positive effect in terms of reducing fear of crime and anti-social behaviour.

Policy 8 sets out the 'place shaping principles' for the Joint Core Strategy, which includes reference to the need to create safe and pleasant streets and spaces'. The purpose of this policy in making North Northamptonshire's streets better connected, inclusive, well defined streetscapes is likely to be intrinsically bound to the public's perception of safety.

Criterion e) iv of policy 8 provides a specific reference to safety by '*seeking to design out antisocial behaviour and crime and reduce fear of crime through the creation of safe environments, visible streets and open spaces and other security measures'*. Policy 10 also refers broadly to the prospect of creating safer environments through the provision of infrastructure.

These policies are inherently positive in terms of community safety. However, the effects cannot be considered to be significant at this stage, as scheme design will play an important part in whether or not these principles are successfully delivered in new development. It should also be remembered that the Adopted Core Strategy (2008) and the NPPF already set out the need to plan for safe communities; so these principles would be promoted anyway.

Spatial Policies

The overall strategy will help to improve access to a decent home and employment, which are key determinants in reducing (re)offending. Development is focused towards the urban areas, notably the growth towns which also happen to be the most deprived areas, with higher concentrations of crime. Access to jobs and services should be improved for communities in these areas. Therefore, over the longer term, the strategy is likely to contribute towards helping to reduce crime (*which is the product of a more complex interaction of factors*).

A number of further policies in the Joint Core Strategy would be expected to have positive implications in terms of reducing crime and the fear of crime.

- Policies 11 and 12 in particular refer to improvements in the viability and connectivity of town centres, which should allow for more active streets (thereby reducing the likelihood of crime and anti-social behaviour).

- Policy 14 refers to the Deenethorpe Airfield Area of Opportunity, which would create additional employment and attractive, connected communities. This should contribute to the wider reduction in deprivation, in particular, nearby urban areas such as Corby could benefit from this opportunity.

- Policies 22 – 27 emphasise that delivering a mix of new jobs would be beneficial in diversifying the economy, thus having the potential to narrow wage gaps between residents. This could help to further reduce deprivation, which would have positive knock-on effects in terms of crime reduction.

21.1.5 *Communities*

Core Policies

The core policies reference the need to ensure that growth facilitates the protection and enhancement of existing and new communities. Policy 7 in particular states that "*development should support and enhance community facilities and assets".* It also refers to safeguarding, and providing accessible facilities, ultimately not resulting in a net loss.

Policies seeking to deliver high quality development also require that places are designed to be safe and healthy, responding to the needs of people of all ages. Policy 8 for example, sets out place making principles which seek to achieve well connected, safe and pleasant spaces, with strong local character.

In combination, the core policies are likely to have positive effects by helping to mitigate against the potential loss of facilities and improve provision were possible.

Spatial Policies

It is possible that development could have an adverse (or perceived) effect on some communities due to changes to settlement character and pressure on services. However, the plan seeks to resist the loss of community facilities and deliver new services and facilities where possible. New development may also support the viability of community facilities and services; which could help to maintain or provide suitable accommodation for community groups.

The SUEs also present the opportunity to create well connected and well served communities led by 'Garden City' principles. As highlighted in policies 32 and 33, the development of the SUEs should also be planned with local communities, which gives them a positive involvement in the planning process and helps to build a stronger community identity.

The spatial strategy also places emphasis on protecting community facilities and the viability of growth towns, market towns and the rural areas. For example, Policy 11 supports the development of Neighbourhood Plans in rural areas, which would have a positive effect in terms of building community spirit and supporting communities to influence the development of their areas.

21.1.6 *Skills*

Core Policies

None of the core policies explicitly cite the need to improve access to educational/learning facilities. However, Policy 10 (which covers the provision of infrastructure) aims to ensure that communities can function effectively; which may include the protection and enhancement of assets such as educational facilities and libraries.

Spatial Policies

By promoting an aspirational but challenging strategy for economic growth and greater self-reliance for jobs and services, the Joint Core Strategy is likely to have a positive knock on effect on skills development in the longer term.

The pattern of growth being promoted also allows for upgrades to educational facilities to be planned for more effectively. For example, new education and training facilities can be delivered through the building blocks of the SUEs. Policies 32 and 33 set out principles for West Corby and Rushden East that both set out the need to provide for primary and secondary school provision as required.

Policy 14 identifies Deenethorpe Airfield as a site for new education infrastructure provision, alongside a number of new homes and other community facilities. This would have positive effects for this community in particular, with wider links to nearby Corby.

Policies 11 and 12 include particular reference to higher education facilities and employment opportunities, where people from North Northamptonshire tend to migrate to neighbouring areas. Planning to reverse this trend is positive. Policies 15, 16 and 17 identify the need for North Northamptonshire to improve its connectivity and in particular stop the flow of people out of the area.

The aim of making North Northamptonshire more self-reliant is also reinforced in the 'delivering economic prosperity' policies. Policy 22 supports proposals *"that encourage a co-ordinated approach to skills and training provision and promote sector specific training."* Policy 26 (*which promotes an area of opportunity for an energy park*) and Policy 27 (the Rockingham Enterprise Area) would also help to support skills, training and research in developing hi-tech industries which could encourage skills development.

The housing strategy will help to support new employment opportunities and to attract/retain a skilled workforce by providing suitable and affordable housing close to job opportunities.

Overall, it is expected that the plan would have a positive effect. However, these effects are not considered to be significant given that the current Adopted Core Strategy (2008) already seeks to achieve a step change in employment provision and skills development (*i.e. skills development and access to jobs would be anticipated to occur anyway*).

21.1.7 *Liveability*

Core Policies

The scale of development planned across North Northamptonshire will (in some instances) put pressure on environmental and social infrastructure. However, the core polices seek to protect, conserve and enhance the natural and local environment, protect valued landscapes, minimise impacts on biodiversity and enhance green networks, as well as ensuring development provides sufficient community services and facilities to meet the needs of the existing and future population. These factors will be inherently positive for liveability.

Policy 8 (place shaping principles) in particular includes the requirements to ensure the *"quality of life and safer, healthier communities"* and *"making safe and pleasant streets and spaces."* This should have a positive effect on neighbourhood amenity.

Spatial Policies

The spatial strategy seeks to develop new communities and places, using the core policies as a framework for protecting North Northamptonshire's assets. As mentioned above, development has the potential to put pressure on some environmental and social assets. New development can also create amenity issues if inappropriately designed and sited. For example, new logistics development (Policy 24) could have an adverse effect on nearby residential areas (*through increased HGV traffic, noise etc.*).

Conversely, new development presents opportunities to improve the public realm by bringing derelict land and buildings back into productive use and securing improvements to green infrastructure. The Sustainable Urban Extensions also offer the opportunity for healthy, green communities to be developed based on Garden City principles.

The Joint Core Strategy also includes a number of policies that seek to protect amenity and improve the 'liveability' of places.

- Policy 11 seeks to ensure that infill development in rural areas does not harm the character of the village or have a detrimental effect on amenity.

- Policy 15 on well-connected towns and villages, requires development to create safe crossing points on major roads that present a barrier to movement, where feasible achieve local integration and utilise green infrastructure. This will help with the appearance of new development, but also could contribute to a healthier lifestyle for people if there are safe and direct routes to amenities in the area.

- Policy 31 seeks to ensure that Gypsy and Traveller sites provide a suitable level of amenity and are served by adequate infrastructure.

- Policies 32 and 33 both set out development principles for the SUEs at West Corby and Rushden East; including the requirement to create well connected communities with attractive green space.

On balance the Local Plan is considered unlikely to have a significant effect (*either positive or negative*) on the quality of neighbourhoods and public spaces as places to live.

21.2 Effective protection of the environment

	Core Policies		Spatial Strategy (Policies)					Strategic Sites
SA Objectives	Protecting and enhancing assets	Ensuing high quality development	The rural and urban areas	Connections within and beyond North Northamptonshire	The Green and Blue infrastructure framework	Delivering economic prosperity	Delivering Homes	Development principles for strategic sites
Biodiversity		✓	✓	✗	?	✓/✗	✓/✗	✓
Landscape		✓	✓	✗	?	✓/✗	✓/✗	-
Heritage	✓	✓	✓	?	✓	-	-	✓
Climate change	✓		-	✓/✗	✓	✗	-	✓
Air	✓	✓/✗	✓/✗	✓/✗	✓	✓/✗	✓/✗	-

21.2.1 *Biodiversity*

Core Policies

Policy 4 seeks to enhance biodiversity networks and identifies that development should seek to manage pressures on access to habitats. This recognises the key local issues and is therefore considered likely to have a positive effect. Policy 3 will also have knock-on benefits for biodiversity by seeking to protect tranquil areas in the Rural North of the County. Together, these policies are likely to have a **significant positive effect** on biodiversity by reducing impacts of new development, and recreational pressure from residents and visitors, notably on the SPA.

Several policies that seek to ensure high quality development (chapter ii of the Core Strategy), are likely to have a positive effect by seeking to enhance the connectivity of settlements through the use of green open space. However, the effects of these policies are unlikely to be significant in isolation.

Spatial Policies

The spatial strategy seeks to focus the majority of development to the growth towns, with managed growth at smaller towns and only limited development at rural areas. The development of housing and employment is mainly concentrated at large urban extensions around each of the main towns. These developments have the potential to have effects on biodiversity, but also provide significant opportunities to deliver habitat creation and enhancement schemes through the delivery of strategic green infrastructure (*for example, the strategic site policies seek to enhance green infrastructure and protect and enhance biodiversity from increased recreational pressure and potential drainage and run off issues*). Therefore, mixed effects have been recorded for the policies in the Joint Core Strategy that will deliver economic prosperity and new homes.

The spatial approach is generally positive for biodiversity as it directs development away from sensitive areas such as Rockingham Forest. However, there will be a need to manage the effects of development on the Nene Valley Gravel Pits as a result of increased growth in Wellingborough and Rushden in particular.

Policies 16-18 may all lead to the development of infrastructure improvements for transport, including new routes, interchange facilities and HGV parking. Individual schemes may all have the potential for localised impacts on biodiversity through disturbance or severance of open space and habitats. A negative effect has been recorded at this stage, but the impacts would need to be assessed in more detail at a project level (most likely through an EIA).

Policies 19-21 seek to achieve a net gain in the green infrastructure network which could include the provision of new habitats, and routes to enhance assets and linkages between areas. The policies for determining the role of the urban and rural areas seek to improve green infrastructure connections within and between settlements, which should have a positive effect on the protection of wildlife. This ought to be positive for biodiversity, provided that recreational access to habitats is managed.

Policy 20 suggests that visitor pressure would be taken into consideration throughout the Nene and Ise Valleys as it seeks to protect and enhance existing visitor attractions, which could help to ensure that other natural areas (that are more sensitive) remain undisturbed. This should help to have positive effects in terms of protecting the ecological qualities of the SPA.

However, the policy also promotes the development of the tourism potential in towns as gateways to the rivers and valleys. An overall growth in visitors to these areas has the potential for negative effects on the SPA through increased recreational pressure, so an uncertain effect has been flagged, although other plan policies are likely to mitigate potential negative effects.

Policy 21 is likely to have a positive effect by setting out clear measures for achieving a growth in woodland in the Rockingham Forest, and more sustainable use of woodland for economic activities. There is a clear strategy for protecting ancient woodland and seeking to link fragmented habitats through landscaping and contributions to afforestation.

Taken together, policies 19-21 are therefore considered likely to have a **significant positive effect** on the baseline position associated with biodiversity.

21.2.2 *Landscape*

Core Policies

The core policies that seek to 'protect and enhance the environmental assets' are generally supportive of protecting landscape character and key assets. This would be achieved through measures that seek to protect heritage assets and their settings, landscape value and tranquillity, open space and biodiversity.

Whilst the majority of the principles in these policies take forward the NPPF, there are other specific clauses which provide a local context. These are likely to provide greater protection and enhancement of the landscape.

For example, Policy 2c) specifically identifies the need to protect and enhance key views and vistas with regards to heritage assets, which should have a positive knock-on effect on the character of the surrounding landscapes. Policy 3 also outlines specific areas of landscape importance and tranquillity at Kings Cliffe; as well as providing guidelines for new development, and its impact on the landscape.

Policies that set out development principles to guide the implementation of the strategic sites seek to protect and enhance landscape assets.

Together, these policies are therefore considered likely to have a **significant positive effect** on the baseline position.

In ensuring high quality development, specific reference is made in Policy 8 that development should respect and enhance local character by *"responding to the local topography and the overall form, character and landscape setting of the settlement" ".* Again, this is likely to have a positive effect.

Spatial Policies

The spatial strategy focuses development towards the growth towns, which will help to divert pressure from market towns and villages within a rural setting (such as within the Rural North, Oundle and Thrapston). This will help to better protect areas of particular landscape and wildlife sensitivity such as Rockingham Forest. However, it is likely that there would be a requirement for greenfield release which could have an effect on the character of some natural areas and settlement boundaries.

There is an acknowledgment in Policy 11 that in villages, development will only be permitted if it does not materially harm the character of the settlement. This is furthered in Policy 13 on rural exceptions, where the character of the rural area is to be maintained and reinforced, and that the open countryside is strongly protected. There is a caveat within this policy stating 'special circumstances' may allow development however. The policy is largely in line with the NPPF. These policies should be positive in helping to prevent inappropriate development in areas with a sensitive landscape.

Although a new Village at Deenethorpe is of a scale that could have significant effects on landscape and settlement character, Policy 14 sets out that the development would be exemplary in its design with a number of measures to enhance green infrastructure, which would have benefits for the wider landscape, provided this is in keeping with the existing character.

Policies 16-18 would involve the implementation of strategic infrastructure schemes, which could have an adverse effect on landscape character. These effects would need to be determined at a project level (most likely through EIA).

Policies 19 sets out that there is an intention to achieve a net gain of Green Infrastructure for North Northamptonshire. This should help ensure green landscapes are supported, having a positive effect on the baseline. Policies 20 and 21 provide specific support for the enhancement of green infrastructure within the Nene and Ise Valley and Rockingham Forest. These policies are positive in this respect, but would also promote increased tourism and access to these areas, which could affect the tranquillity and how these areas are experienced. However, clauses in each of these policies states that development needs to *"strike an appropriate balance between visitor numbers and biodiversity, landscape, local amenity and heritage interests."* On balance, it is considered that these effects could have a **significant positive effect**, although there are some uncertainties about whether these would be realised (for the reasons discussed).

Policy 26 identifies an area of opportunity for an Energy Park on land at Burton Wold, which could potentially have negative effects on landscape value. However, the policy states that development needs to be "*of a high quality design to mitigate landscape impact."* This does at least acknowledge the specific area in which the landscape is important and requires further work or mitigation. There are existing wind farms at Burton Wold near Kettering and Chelveston Energy Park in East Northamptonshire, which presents the potential for cumulative effects in this location.

21.2.3 *Heritage*

Core Policies

Policy 2 promotes the 'protection, preservation and enhancement' of North Northamptonshire's heritage assets; reflecting the principles of the NPPF. However, Policy 2c is likely to have specific local positive effects in maintaining key views. The policy also makes particular reference to church spires along the Nene Valley and across wider North Northamptonshire, highlighting a visual amenity of major significance to the local area. Additionally, Policy 2 also promotes the utilisation of flexible solutions to the re-use of buildings

and conservation of heritage assets at risk. It contains a specific reference to this where the asset could be removed from the 'at risk' register.

Policy 3 also refers to the conservation and enhancement of local landscape character and quality. The policy makes particular reference for the need to preserve tranquillity within the King's Cliffe Hills and Valleys Landscape Character Area by minimising light and noise pollution and minimising the visual and traffic impacts of development.

Policy 8 draws upon the need to understand and respond to a site's 'immediate and wider context and local character'; the policy also acknowledges the need to consider the 'best of that local character without stifling innovation.' This should help to ensure that developments are considerate to North Northamptonshire's immediate and broader heritage and do not disrupt the local character tied to the area. The combined impact of these policies is likely to have positive effects on heritage in North Northamptonshire.

Policy 8 could be enhanced by seeking to encourage developers to implement distinct housing on new estates, rather than 'mass produced' designs. This would help to ensure that new housing estates do not look the same no matter where they are implemented.

Spatial Policies

The spatial strategy directs housing and employment to the growth towns. In general, this should protect the sensitive heritage assets and character at smaller rural villages. It is also unlikely that sensitive assets would be directly affected in urban areas due to the protection afforded by the Core Policies and other spatial policies within the Joint Core Strategy. For example:

- Policy 11 notes that development in either urban or rural areas should not compromise the character of the area. Similarly Policy 12 supports development which is consistent with the character of North Northamptonshire's Market Towns.

- Policy 26 acknowledges that renewable energy and low carbon developments must avoid causing substantial harm to heritage assets.

The development of the SUEs is not considered likely to have a significant effect on heritage assets, as appropriate mitigation measures should be achievable where heritage assets are adjacent to sites. For example, in Policy 36, there is a specific requirement to respect and restore historic landscape features and enhance the significance and setting of Boughton House and Boughton House Registered Park and Garden.

The development of strategic transport infrastructure has the potential for adverse effects on heritage assets and their settings. These would need to be addressed in more detail at a project level. At this stage an uncertain effect has been recorded.

In terms of enhancement, Policy 20 features emphasis on developing the Nene and Ise Valleys, including the visitor economy of these areas. The policy is likely to have a positive impact on heritage as it seeks to support heritage-based attractions provided they strike the 'appropriate balance' between visitor numbers and heritage interests.

21.2.4 *Climate Change*

Core Policies

Similar to other topics, the majority of policies that seek to '*protect environmental assets'* are inherently positive regarding climate change as they seek to conserve natural resources and enhance the quality of environments (*which can improve resilience to climate change).*

The policies that seek to ensure high quality development are also likely to have a positive effect by seeking to enhance sustainability, good design and the promotion of sustainable travel (Policies 8 and 10(b) for example).

Policy 9 is particularly positive as it recognises the need to reduce water use beyond national standards, and identifies allowable solutions for reducing carbon emissions within Northamptonshire. Therefore a **significant positive effect** has been identified here.

Spatial Policies

Increased development of employment and housing will lead to greater overall emissions of carbon. However, development is likely to occur anyway in the absence of the Joint Core Strategy, and could take place without the benefits and mitigation measures set out in the Joint Core Strategy.

The spatial strategy sets out a settlement hierarchy, and focuses the growth of housing and development to the growth towns of Corby, Kettering, Wellingborough and Rushden. There is also an aspiration to focus retail and leisure at the growth towns. This pattern of growth is more likely to lead to a reduction in carbon emissions from traffic compared to one of dispersal. However, the effects are essentially neutral, because it is predominantly a continuation of the status quo.

Having said this, there are a number of spatial policies that aim to reduce vehicle emissions and achieve modal shift in transport. For example, Policies 11 and 15, 16 and 17 seek to enhance connectivity for key settlements which seek to enhance walking, cycling and public transport links both within and between settlements. Green infrastructure policies also seek to reduce emissions by increasing the use of green infrastructure for sustainable modes of travel.

Conversely, Policies 16, 17 and 18 also promote road schemes and facilities for HGVs, which are likely to support the continuation of car and lorry use as a major mode of transport.

Policy 21 is likely to have a particular positive effect in terms of supporting climate change mitigation as it supports annual woodland planting in the Rockingham Forest, which is also linked to funding contributions from new development.

Policy 26 sets out requirements to positively plan for renewable and low carbon energy which will help reduce the causes of climate change. It includes Land at Burton Wold as a specific destination for renewable technologies as an area of opportunity for an Energy Park. An Energy Park here would likely result in a positive effect for North Northamptonshire becoming more sustainable, which is recorded as a **significant positive effect.** In addition, Policies 32 and 33 require the preparation of an energy strategy to support the highest viable amount of heat and energy at the SUEs West of Corby and at Rushden East. This would also have a positive effect in reducing carbon emissions from these particular developments.

Having said this, Policy 26 sets out a number of policy requirements that could be considered '*restrictive*' in terms of securing renewable energy capacity elsewhere in North Northamptonshire. For example, the policy emphasises the importance of avoiding harm to environmental assets (*which are already covered by other plan policies – implying that these factors hold greater weight*), and also requires developers to demonstrate that the technology selected is '*the most appropriate'*. The most appropriate technology may not always be an attractive proposition and may dissuade some developers from bringing forward alternative schemes that could still achieve carbon emissions reductions. Therefore, provided that energy schemes are in conformity with the other policies in the Local Plan; it is considered that these should be promoted, regardless of whether other options may be seen to be *'the most appropriate'*.

21.2.5 *Air Quality*

Core Policies

Collectively, the core policies are likely to have a generally positive effect on air quality by promoting environmental protection (Policy 4), enhancement of green infrastructure and a modal shift towards more sustainable modes of travel such as walking and cycling (Policies 8 and 10). Policies 7 and 10 should also help to reduce potential air quality issues by seeking to reduce the need to travel. Policy 7 helps to achieve this by ensuring that developments and

communities have access to community facilities and services by foot, whilst Policy 10 promotes improved access to broadband.

Spatial Policies

Policies referring to particular sites (Policies 32-37) or broadly to the location of development (such as 11, 12 and 14) could potentially have detrimental effects on air quality in the local and wider area (through an increase in traffic and congestion at key points on the road network).

However, the policies within the JCS should to ensure that these effects are mitigated. It is also important to remember that housing growth and development would still occur anyway in the absence of the revised JCS and in most cases, strategic development proposes enhancements to transport infrastructure. Therefore, these effects are not considered to be significant. For example, Policy 12 proceeds to outline further enhancements to access across town centres, notably citing improvements for 'pedestrians, cyclists and public transport users'. This presents the potential to benefit local air quality when considered alongside Policies 4 and 6.

Policies 15 and 16 also strive to connect and strengthen settlements across North Northamptonshire. These policies highlight that sustainable transport is a priority, which should further help to manage air quality.

Policy 18 refers to meeting the needs of 'a net increase in HGV parking'. Whilst an increase in HGVs would be anticipated anyway, the provision of lorry parks could have localised negative effects on air quality due to increased emissions from a concentration of lorries. However, these effects would need to be determined and mitigated at a local level, and it is possible to better control effects through a planned approach to provision.

Policies 19, 20 and 21 refer to the safeguarding and delivery of green infrastructure. Such policies are linked with the enhancement of biodiversity and improvement of access between towns, which ought to have a positive effect on air quality by promoting sustainable modes of travel. Increased vegetation can also have a positive effect in helping to remove particulates from the air. Policy 21 also supports the planting of 40ha a year of new trees in the Rockingham Forest area, which would have localised positive effects.

21.3 Prudent use of natural resources

	Core Policies		Spatial Strategy (Policies)					Strategic Sites
SA Objectives	Protecting and enhancing assets	Ensuing high quality development	The rural and urban areas	Connections within and beyond North Northamptonshire	The Green and Blue infrastructure framework	Delivering economic prosperity	Delivering Homes	Development principles for strategic sites
Water	✓		✓	✗	✓/✗	✗	✗	✓
Flooding		✓	✓	- / ✗		✓/✗	✓/✗	✓
Soil and land	✓	✓	✓/✗	✗	✓	✓/✗	✓/✗	-
Minerals	✓	✓	-	-	-	-	-	-
Energy use	-	✓	✓	✓	-		✓/✗	✓
Waste	-	✓	-	-	-	-	-	-

21.3.1 *Water*

Core Policies

Although Policies 5 and 6, by seeking to protect water resources, are inherently positive, they essentially support the NPPF (and the WFD in regards to Policy 5) without providing much additional local detail reducing their effects. Policies 3 and 4 by respectively seeking to protect features of landscape importance (e.g. river floodplains) and ecological habitats (i.e. water habitats, in particular the Upper Nene Valley Gravel Pits Special Protection Area) are also likely to have knock-on beneficial effects on water resources. However, this effect is not considered significant.

The policies that seek to ensure high quality development are likely to have a positive effect as they identify standards for the protection of water resources. In particular, Policy 9 specifies a maximum limit of water usage for all residential developments which recognises the classification of North Northamptonshire as an area of water stress. This is likely to have a **significant positive effect**.

Spatial Policies

Housing and employment developments resulting from the spatial policies have the potential to cumulatively exacerbate existing water capacity and service issues in the county. However, Policies 11 (Part 2), 13, 14 and 31 set criteria for ensuring that adequate infrastructure capacity (including water supply and treatment) is available for new development particularly in rural areas and at Gypsies and Travellers sites. These policies in conjunction with Policy 9 as detailed above should help minimise pressure on water resources.

Individual housing and employment schemes may have potential for water pollution through surface water runoff and spillage of contaminants. Hence a negative effect has been identified. However, certain spatial policies also set criteria for the minimisation of effects on the environment in general (Policies 13, 24, 26), or more specifically on identified watercourses (Policies 14 and 27). These policies in conjunction with the core policies detailed above are likely to benefit water quality and help to mitigate potential adverse impacts from new development. The overall impact would need to be assessed in more detail at a project level (most likely through EIA).

Policies 16-18 may all lead to the development of infrastructure improvements for transport, including new routes, interchange facilities and HGV parking. Individual schemes may have potential for water pollution via surface water runoff or spillages of contaminants.

A negative effect has been recorded at this stage, but the impacts would need to be assessed in more detail at a project level (most likely through EIA).

Policies 19-21 seek to achieve a net gain in the green and blue infrastructure network, including provision of floodplain and river re-naturalisation, de-culverting within urban areas and river habitat improvements in the Nene and Ise Valleys. These provisions are likely to have a beneficial knock-on effect on water quality. However, Policy 20 also seeks to encourage the recreational use of waterways, including waterside facilities in Wellingborough, Thrapston and Oundle and improved navigational use of the River Nene. Such activities will have to be appropriately managed to ensure water quality is not deteriorated.

21.3.2 *Flood Risk*

Core Policies

The majority of policies seeking 'to protect environmental assets' are positive in terms of flood risk, as collectively they would help to protect and enhance green infrastructure.

Policy 5 seeks to reduce flood risk and recognises that local studies might indicate where developments should meet a higher annual probability standard of flood protection. It also sets out that where appropriate, development should, subject to viability and feasibility, contribute to flood risk management in North Northamptonshire thus ensuring investment in flood risk management in the community. Policy 4 will also have knock on effects on the adaptability of environments by seeking to restore the ecological network in the Nene Valley Nature Improvement Area. Together these policies are likely to have a **significant positive effect** on flood risk.

The policies that seek to ensure high quality development are likely to have a positive effect by encouraging developments to create more open spaces and to minimise demand for infrastructure. However, the effects of these policies are unlikely to be significant.

Spatial Policies

The spatial approach is generally positive in terms of flood risk as most Sustainable Urban Extension sites identified are located outside of medium and high flood zones. Policy 31 also stipulates that sites allocated for Gypsies and Travellers should not present unacceptable flood risk.

The following committed strategic sites represent exceptions as they are largely located within medium and high flood zone areas: Wellingborough East (both housing and employment), Rushden Lakes (employment only). A negative effect has been recorded to reflect this, but it should be remembered that development at these locations is committed and it will be brought forward anyway, so the effect of the Joint Core Strategy is not significant.

Conversely, the development at the SUEs provide the opportunity to provide natural flood storage, which could reduce surface water run-off from the pre-development levels. For example, Policy 33 requires that development at Rushden East makes '*imaginative use of water to manage drainage'*.

Policy 37 seeks to direct development to areas of lowest flood risk and ensure that extensive flood mitigation measures are provided.

Likewise Policies 16-18 might lead to the development of infrastructure projects for transport located within medium and high flood zones. Flood risk will have to be appropriately managed. The overall effect would need to be assessed in more detail at a project level (most likely through EIA).

Policies 19-21, by seeking to achieve a net gain in the green infrastructure network, (including along the Nene and Ise Valley), including provision of floodplain and river re-naturalisation are likely to have beneficial effects on the adaptability of these floodplains to future flood risk. This

effect is considered to be a **significant positive effect,** as these valleys represent the two major floodplains cutting across the whole of North Northamptonshire.

21.3.3 *Soil and Land*

Core Policies

A number of core policies would have a positive effect in terms of ensuring effective use of land. However, in the main, these policies are not considered likely to have a significant effect, as these principles are already outlined in the NPPF and the existing Adopted Core Strategy (2008).

- Policy 6 is inherently positive as it seeks to maximise the use of brownfield sites and sets requirements for remediation of contaminated land proposed for development.
- Policies 3, 4 and 7 could also have beneficial knock-on effects by seeking to protect farmed / agricultural land, prevent coalescence of settlements and by seeking to provide green spaces in new development.
- Policy 8, by seeking to create open green spaces, prevent unacceptable levels of soil pollution for both new and existing development and to ensure the connectedness of proposed developments, will have a positive impact on land.

Spatial Policies

The spatial strategy is generally positive for soil and land as it directs development away from the best and most versatile agricultural land by seeking to limit development in rural areas and by seeking to prioritise the re-use of previously developed land and buildings (where suitable).

The spatial strategy also provides some flexibility for some development to occur in rural areas in order to meet existing needs and support development of the rural economy. In particular, Policies 13 and 25 will help maintain agriculture in the countryside by seeking to develop and diversify agriculture and other land based businesses and by allowing development of new dwellings for rural workers to live permanently at or near their place of work in the countryside. This is likely to have a positive knock-on effect on the maintenance of agricultural land.

Policies 19-21 by seeking to achieve a net gain in green infrastructure and Policy 27 by requiring decontamination of the Rockingham Enterprise Area site will also have a positive effect on land.

Nevertheless, some Grade 2 and Grade 3 agricultural land is likely to be affected by any development proposed around Kettering, to the west of Wellingborough, to the west and north of Rothwell, to the south east and north west of Burton Latimer and to the south east of Oundle and through rural exceptions housing schemes. Likewise, Policies 16-18 might lead to the development of infrastructure projects for transport located within the best and most versatile agricultural land. Hence a negative effect has been recorded.

The significance of this cumulative land take will depend on the size and location of the proposed housing, employment and infrastructure developments.

21.3.4 *Minerals*

Core Policies

By seeking to ensure high standards of resource efficiency and by promoting development that minimises the demand for infrastructure, the policies that seek to ensure high quality development are inherently positive in terms of minerals.

Policy 6 is also positive as it prioritises the reuse of previously developed land and buildings within urban areas. This would reduce the demand for new minerals.

However, the effect is considered to be negligible as these principles would need to be considered anyway through national policy.

Spatial Policies

By promoting housing, employment and infrastructure development, the spatial strategy will inherently increase the use of minerals within North Northamptonshire. However, development would occur in the absence of the Joint Core Strategy anyway and thus have similar effects. Furthermore, Policies 11, 14, 22 and 29 all seek to give priority to the re-use of previously developed land and buildings (where suitable).

These policies together with the core policies detailed above should help reduce pressure on mineral resources and so a neutral effect has been recorded in terms of housing and employment growth and associated infrastructure.

21.3.5 *Energy Use*

Core Policies

The policies that seek to ensure high quality development are likely to reduce energy use and improve efficiency by seeking to enhance sustainability, good design and the promotion of sustainable travel (Policies 8 and 10(b) for example).

By stipulating that off-site "allowable solutions" should be achieved through investment in projects within North Northamptonshire, Policy 9 will also ensure that the benefits arising from such projects are experienced by the local community.

Spatial Policies

The spatial strategy provides opportunities to minimise energy use by seeking to enhance and give priority to sustainable means of transport. In particular, Policies 8, 15-17 seek to rebalance design towards pedestrians, cyclists and public transport by enhancing the available infrastructure (e.g. developing bus and multi modal interchanges and upgrading the rail infrastructure) and improving journey ambiance (e.g. safe and convenient crossing points on major roads and low design speeds for residential roads). Together these policies are likely to have positive effect.

Policies 22-27 support the development of a low carbon economy. In particular, Policy 22 recognises the Renewable and Low Carbon Energy and Green Technologies as a priority sector. Policy 26 also provides support for renewable and low carbon energy generation proposals, including an area of opportunity for an Energy Park focused on developing renewable energy technologies. Together these policies are likely to have **a significant positive effect** on energy use.

However, Policy 26 is also quite restrictive in that it requires developers to demonstrate that the technology selected for implementation is '*the most appropriate'*. The most appropriate technology may not always be an attractive proposition and may dissuade some developers from bringing forward alternative schemes that could still achieve carbon emissions reductions.

By promoting housing and economic development, the spatial strategy will inherently increase energy use. However, it is important to note that employment and housing growth would be expected anyway. Therefore, these effects are not considered to be significant. The core policies seeking to ensure high quality development will also help mitigate this effect.

The new village proposed at Deenethorpe Airfield Area (Policy 14) would showcase carbon neutral development in North Northamptonshire should it be developed. This policy therefore represents another opportunity for minimised energy use and the development of a low carbon economy.

Development at West Corby and Rushden East (Policies 32& 33) requires that an energy strategy must be produced to ensure that the highest viable amount of heat and energy used within the developments is generated on-site from renewable or low-carbon sources.

Finally Policies 19 -21 could also have knock-on beneficial effects on energy use by seeking to remedy local deficiencies in open space provision / quality and by seeking to enable easy access on foot, horseback or bicycle to the Rockingham Forest by local residents. As a result, residents in North Northamptonshire would require less vehicle use travelling to access green spaces.

21.3.6 *Waste*

Core Policies

The policies that seek to 'protect and enhance environmental assets' are predicted to generally have a limited effect on the generation, treatment and disposal of waste. However, it is noted that Policy 6 may lead to the requirement to dispose of contaminated land if appropriate treatment and reuse cannot be identified when remediation is undertaken. The impacts would need to be assessed in more detail at a project level (most likely through an EIA).

By seeking to ensure high standards of resource efficiency and by promoting development that minimises demand for infrastructure, the policies that seek to ensure high quality development are inherently positive in terms of minimising waste generation. However, the effects are not considered to be significant as these principles would need to be considered anyway through the NPPF and the North Northamptonshire Waste and Minerals Local Plan.

Having said this, it is considered that Policy 8 (place shaping principles) could be strengthened by requiring development to be designed so as to allow for effective storage and collection of waste.

Spatial Policies

By promoting aspirational but challenging levels of housing, employment and infrastructure development, the spatial strategy will inherently increase the amount of waste generated within the county. However, it is important to remember that development would occur anyway in response to population growth and aspirations for economic growth and likely to be in a more un- planned manner. Therefore, the effects are not considered to be significant.

The focus of development on the urban areas, mainly at the growth towns is also considered the most effective strategy for making use of and enhancing existing infrastructure; which includes waste management facilities and services. Furthermore, the core policies seeking to ensure high quality development should help to mitigate this effect. Therefore, on balance, a neutral effect is anticipated overall.

21.4 Maintenance of economic growth and employment

	Core Policies		Spatial Strategy (Policies)					Strategic Sites
SA Objectives	Protecting and enhancing assets	Ensuing high quality development	The rural and urban areas	Connections within and beyond North Northapmtonshire	The Green and Blue infrastructure framework	Delivering economic prosperity	Delivering Homes	Development principles for strategic sites
Employment & Wealth Creation	✓	✓	✓	✓	✓		✓	✓
Town Centres	✓	✓	✓	✓	✓	✓	✓	✓

21.4.1 *Employment and Wealth Creation*

Core Policies

The Joint Core Strategy (mainly through Policy 8), highlights the requirement to deliver development with a high quality of design over the plan period. Along with a range of other policies that that seek to protect and enhance environmental assets this should help to add to the appeal of North Northamptonshire, which could attract new employment uses (and workers) to the area.

Policy 10 sets out that development must be supported by the timely delivery of infrastructure, services and facilities necessary to meet the needs arising from the development and to support the development of North Northamptonshire. The delivery of new infrastructure would contribute towards supporting the development of employment uses throughout North Northamptonshire

Spatial Policies

The Joint Core Strategy identifies the need to deliver a minimum net increase of 31,100 jobs throughout North Northamptonshire (Policy 22). Delivery of these jobs would have a **significant positive effect** on the baseline through enhancing employment opportunities and self-reliance throughout North Northamptonshire.

The Joint Core Strategy highlights that the Growth Towns of Corby, Kettering, Wellingborough and Rushden will be the focus for infrastructure development and higher order facilities to support major employment, housing, retail and leisure development in North Northamptonshire (Policy 11 and 23). The SUEs identified in the Joint Core Strategy would also provide strategic locations for housing and employment development. Development of these uses would have a positive effect in terms of delivering new jobs in the area. New house building in the area over the plan period would also increase the number of jobs available in the house building sector.

Policy 11 also highlights that development in rural areas would be limited to that required to support a prosperous rural economy. Policy 25 sets out that opportunities to develop and diversity the rural economy that are of an appropriate scale for their location and respect the environmental quality and character of the rural area will be supported. It also sets out that enhanced broadband provision to facilitate economic development in the rural areas will be supported. Delivery of employment uses in rural areas would have a positive effect in relation to this topic area.

Policy 12 highlights the need to support the viability and viability of the town centres throughout North Northamptonshire through securing and maintaining a vibrant mix of retail, employment, leisure and cultural facilities. Delivery of these uses in town centres would have a positive effect in terms of creating employment opportunities in accessible locations.

Deenethorpe Airfield is identified as an 'Area of Opportunity' by the Joint Core Strategy for the development of between 1000 and 1250 dwellings. Policy 14 highlights that development of the site would need to support the rural economy through the provision of land and buildings for owner occupiers of small and medium sized enterprises and space for successful enterprises to expand. The implementation of this policy would have a positive effect in terms of supporting the development and diversification of the rural economy in the north. The policy also highlights that super-fast broadband will be installed for all businesses and community facilities and also for dwellings to support home working. This would support flexible working within this area through providing opportunities for people to work from home.

Policy 15 outlines the importance of strengthening connectivity within and around settlements through improving access from the edge of towns to their centres, creating safe, direct and convenient crossing points on those major roads that present a barrier to movement where feasible, encouraging the use of sustainable modes of transport and extending the existing Green Infrastructure. This policy will have a positive effect in terms of ensuring employment opportunities are accessible and will encourage people to use sustainable modes of transport when travelling to work.

The Northamptonshire Arc Transit Network will link the urban spine of North Northamptonshire (the four growth towns) with Northampton and Daventry. Policy 16 highlights that the connections between the towns will be strengthened through improvements to the road network and to the railway and bus stations. These improvements would have a positive effect on the economy of the local area through enhancing access to job opportunities and encouraging new businesses to locate in the area.

Policy 17 also sets out the need to strengthen and enhance North Northamptonshire's strategic connections with surrounding areas. Enhancing these connections would have a positive effect in terms of supporting the development of the local economy.

Policies 19-21 seek to enhance the use of green infrastructure for transport routes, and to promote a stronger visitor offer from the towns and villages that are closely related to the River Nene and Rockingham Forest. This should also help to support rural job opportunities.

The role that the logistics sector has in North Northamptonshire is emphasised in the Joint Core Strategy. Policy 24 highlights that proposals for logistics (including large scale strategic distribution) will be supported where they comply with the spatial strategy and satisfy a set criteria. Delivery of new uses in this sector would further support the development of the economy and continue to re-enforce the areas role in the logistics sector. Policy 18 links to this by highlighting the need to deliver a net increase in HGV parking to address an existing shortfall and to meet the needs arising from new employment development (Policy 18).

Land at Burton Wold is identified in the Joint Core Strategy as an area of opportunity for an energy park to build on the range of renewable energy technologies (Policy 26). The Rockingham Motor Racing Circuit is identified as an Enterprise Area in the Joint Core Strategy (Policy 27) for the development of high performance technologies and research and development. Development of these sites would contribute towards providing high tech employment opportunities in North Northamptonshire, improving the quality of jobs on offer to local residents.

21.4.2 *Town Centres*

Core Policies

The Core Policies seek to achieve high quality design, and protect important natural and built assets. This is inherently positive for town centres as it helps to improve the public realm and bring buildings into productive use in these areas. Policy 8 sets out the need to ensure development integrates well with existing cycle, pedestrian, public transport and vehicular movement networks and provides direct routes to local facilities. Implementation of this policy would have a positive effect in terms of enhancing the vitality of the town centres throughout North Northamptonshire by promoting high quality design in new development. Although

these effects are positive, the effects are not considered to be significant, as good quality design and environmental protection would need to be demonstrated in new developments anyway to satisfy the NPPF and adopted Core Strategy.

Spatial Policies

The Joint Core Strategy highlights that the Growth Towns of Corby, Kettering, Wellingborough and Rushden will be the focus for infrastructure development and higher order facilities to support major employment, housing, retail and leisure development in North Northamptonshire (Policy 11). In addition, Policy 29 sets out how new homes will be distributed throughout North Northamptonshire; identifying the need to focus new housing development at the growth towns, followed by the market towns then smaller villages. This settlement hierarchy will help to ensure that the vitality and viability of town centres are maintained by encouraging people to use them.

More specifically, Policy 23 outlines that town centres and areas around the railway stations at the Growth Towns will be the preferred locations for new office development. Delivery of office uses in town centres will further contribute towards enhancing the vitality and viability of these areas, and should also promote sustainable modes of transport to access this type of employment.

Through Policy 12, the Joint Core Strategy highlights the importance of supporting the vitality and viability of the town centres in North Northamptonshire. The policy emphasises the need to deliver a mix of uses in these areas and improve access to town centres for pedestrians, cyclists and public transport users. The implementation of this policy would have a positive effect.

Policy 15 outlines the importance of strengthening connectivity within and around settlements through improving access from the edge of towns to their centres, creating safe crossing points, encouraging the use of sustainable modes of transport and extending the existing Green Infrastructure. This policy will have a positive effect in terms of enhancing the vitality of town centres through ensuring that they are accessible.

The delivery of Green Infrastructure within North Northamptonshire over the plan period would have a positive effect in terms of providing new routes to enhance linkages between areas, including to and from town centres (Policy 19). This would have a positive effect in terms of protecting and enhancing the vitality of town centres in North Northamptonshire.

22 SUMMARY AND CONCLUSIONS

The effects of the Pre-Submission Version of the Joint Core Strategy 'viewed as a whole' have been summarised in Table 22.1 below. It is clear from the analysis in the SA, that the Joint Core Strategy is considered to have a number of significant positive effects. This is in part due to the fact that the development of the Joint Core Strategy has been influenced by the SA at a number of key stages; from the consideration of reasonable alternatives, to the appraisal and shaping of draft policies.

Where significant effects have been predicted, monitoring indicators have been identified as follows:

- By linking to the measures that are already collected as part of the Authority Monitoring Report.
- In response to suggestions received as a result of consultation.
- To address any significant effects that have been highlighted in the appraisal.

Table 22.1: Summary of sustainability effects and suggested monitoring measures

Summary of effects	Monitoring significant effects
Social progress which meets the needs of everyone	
On balance, the Joint Core Strategy is considered likely to have a positive effect on the health and wellbeing of communities by improving access to housing and employment and seeking to diversify the economy (which could help to improve access to better paid jobs). Coupled with policies that seek to improve accessibility and environmental quality, it is considered that **significant positive effects** would be likely on the baseline position with regards to health and the provision of housing. Aside from improved access to housing and employment, the Joint Core Strategy would also contribute to equitable and sustainable growth by helping to create safe places, accessible and well-connected neighbourhoods. The SUEs in particular present the opportunity to create well-connected and well-served communities led by 'Garden City' principles and with the involvement of local communities. Development of housing, employment sites and infrastructure could have localised effects on specific communities by affecting amenity, potentially affecting air quality (in the short term at least), and through a perceived loss of community. However, the policies within the Joint Core Strategy ought to ensure that these effects are mitigated. It is also important to remember that housing growth and development would still occur anyway in the absence of the revised Joint Core Strategy and in most cases development proposes enhancements to the environment and social infrastructure. Therefore, these effects are not considered to be significant.	Accessibility to services and facilities from new residential developments. Provision of 'community assets' at SUEs and other developments. Building for Life Assessment (BfL12) of completed residential schemes. Provision of accessible Greenspaces (ANGst)

Effective protection of the environment	
The Joint Core Strategy generally directs growth away from areas of sensitive landscape and biodiversity value such as parts of the Rockingham Forest. However, development at the SUEs and around the main towns has the potential to have localised adverse effects on biodiversity and landscape character. This could present particular issues in towns that are within close proximity to the Nene Valley Gravel Pits SPA. Having said this, the Joint Core Strategy seeks to protect and enhance green infrastructure, which should mitigate these effects. The JCS also includes policies that will help to achieve a net increase in green infrastructure, which would include an enhancement in the quality, connectivity and quantity of habitats such as woodland. This is considered likely to have a **significant positive effect** on the baseline with regards to biodiversity and landscape. The JCS could have some localised adverse effects on heritage assets due to the development of housing, employment and infrastructure. However, there are protective policies that are considered adequate to mitigate these effects. Due to the distribution of development, the setting of heritage features should be better protected in the smaller towns and villages, but there may be greater potential for cumulative effects on cultural heritage for the larger towns. On balance a **neutral effect** has been predicted. The JCS incorporates a series of core policies that are likely to have a generally positive effect on air quality by promoting environmental protection (Policy 4), enhancement of green infrastructure and a modal shift towards more sustainable modes of travel such as walking and cycling (Policies 8 and 10).	Reporting on the number/area (ha) of trees planted in the Rockingham Forest. Reporting on local in Green Infrastructure projects and investment at the local level. No. of developments assessed by accredited design review. Change in areas of biodiversity importance (ha)
Prudent use of natural resources	
Housing and employment developments (and supporting infrastructure) resulting from the spatial policies have the potential to cumulatively exacerbate existing water capacity and service issues in the county; as well as having localised effects on water quality. However, a number of policies in the JCS would help to mitigate potential adverse effects by seeking to ensure high quality development and protect environmental assets. In particular, Policy 9 specifies a maximum limit of water usage for all residential developments which recognises the classification of North Northamptonshire as an area of water stress. The JCS also seeks to achieve a net gain in green and blue infrastructure, which would help to mitigate the effects of new development The spatial approach is generally positive in terms of flood risk as most Sustainable Urban Extension sites identified are located outside of medium and high flood zones. Policy 5 also seeks to reduce flood risk and recognises that local studies might indicate where developments should meet a higher annual probability standard of flood protection. Policy 4 will also have knock on effects on the adaptability of environments to climate change by seeking to enhance the ecological network in the Nene Valley Nature Improvement Area. Together these policies are likely to have a **significant positive effect** on flood risk. Although there will be the loss of some agricultural land, the spatial strategy is generally positive for soil and land. It directs development away from the best and most versatile agricultural land by seeking to limit development in rural areas and by seeking to prioritise the re-use of previously developed land and buildings (where suitable). On balance, the effects of the JCS are considered to be **neutral** in this respect. By promoting housing and economic development, the spatial strategy will inherently increase energy use. However, it is important to note that employment and housing growth would be expected anyway. Therefore, these effects are not considered to be significant. The core policies seeking to ensure high quality development will also help mitigate this effect.	No. of developments approved and completed with SuDS (including Green Roofs and Rainwater Harvesting). Reporting progress on the enhancement of existing visitor attractions and facilities in the Nene and Ise Valleys. Renewable Energy technologies secured through new logistics operations. Permitted and Completed Renewable Energy Installations by type (excluding Permitted Development) and area, including District Heating Schemes.

Furthermore, the spatial strategy provides opportunities to minimise energy use by seeking to enhance and give priority to sustainable means of transport. Policy 22 also recognises the Renewable and Low Carbon Energy and Green Technologies as a priority sector for economic growth, and Policy 26 identifies an area of opportunity for further development of an Energy Park focused on developing renewable energy technologies. Together these policies are likely to have a **significant positive effect** on energy use. Policy 26 (as currently worded) is quite restrictive in that it requires developers to demonstrate that the technology selected for implementation is '*the most appropriate'*. The most appropriate technology may not always be an attractive proposition and may dissuade some developers from bringing forward alternative schemes that could still achieve carbon emissions reductions.	Report progress on the development of the Kettering Energy Park of Opportunity and associated policy criteria.
Maintenance of economic growth and employment	
The JCS identifies the need to deliver a minimum net increase of 31,100 jobs throughout North Northamptonshire (Policy 22) in accessible locations. There are aspirations to secure high quality employment sectors, consolidate and strengthen the role of the logistics sector and to diversify the rural economy. Delivery of these jobs (*in combination with jobs created through housing development and tourism*) would have a **significant positive effect** on the baseline by enhancing employment opportunities and self-reliance throughout North Northamptonshire. Core policies in the JCS should help to create more attractive places to work, live and visit, by seeking to enhance green infrastructure, secure high quality design and improve connectivity. The strategy will also help to maintain the role, and viability of town, district and local centres; as well as supporting the delivery of strategic infrastructure to support major employment housing, retail and leisure development. These factors should further contribute to attracting investment into the area.	No. of net additional jobs provided by LPA on an annualised basis. Report on progress in relation to delivery of highways and transport infrastructure. Total amount of additional employment floorspace provided annually (use classes B1, B2, B8). Number and scale of new Logistics operations by location. Report progress on the development of the Rockingham Enterprise Area (REA) and associated policy criteria.

PART 4: WHAT ARE THE NEXT STEPS?

23 INTRODUCTION (TO PART 4)

This Part of the SA Report explains the next steps that will be taken as part of the plan-making / SA process, including in relation to monitoring.

23.1 Plan finalisation and adoption

The Joint Core Strategy has been 'published' for consultation so that final representations can be made. It is the intention that the Core Strategy will then be 'Submitted' for consideration by an Independent Planning Inspector at Examination. The Inspector will then judge whether or not the Plan is 'sound'.

Assuming that the Inspector does not request that further work be undertaken in order to achieve soundness, it is expected that the Plan will be formally adopted in December 2015.

Should the Inspector consider it necessary for modifications to be made to the Plan to make it 'sound', it may be necessary to undertake updates to the SA to ensure that any changes do not have a significant effect upon the findings.

An updated SA Report will be prepared to accompany the final Submission version of the Joint Core Strategy.

At the time of adoption an SA 'Statement' must be published that sets out (amongst other things):

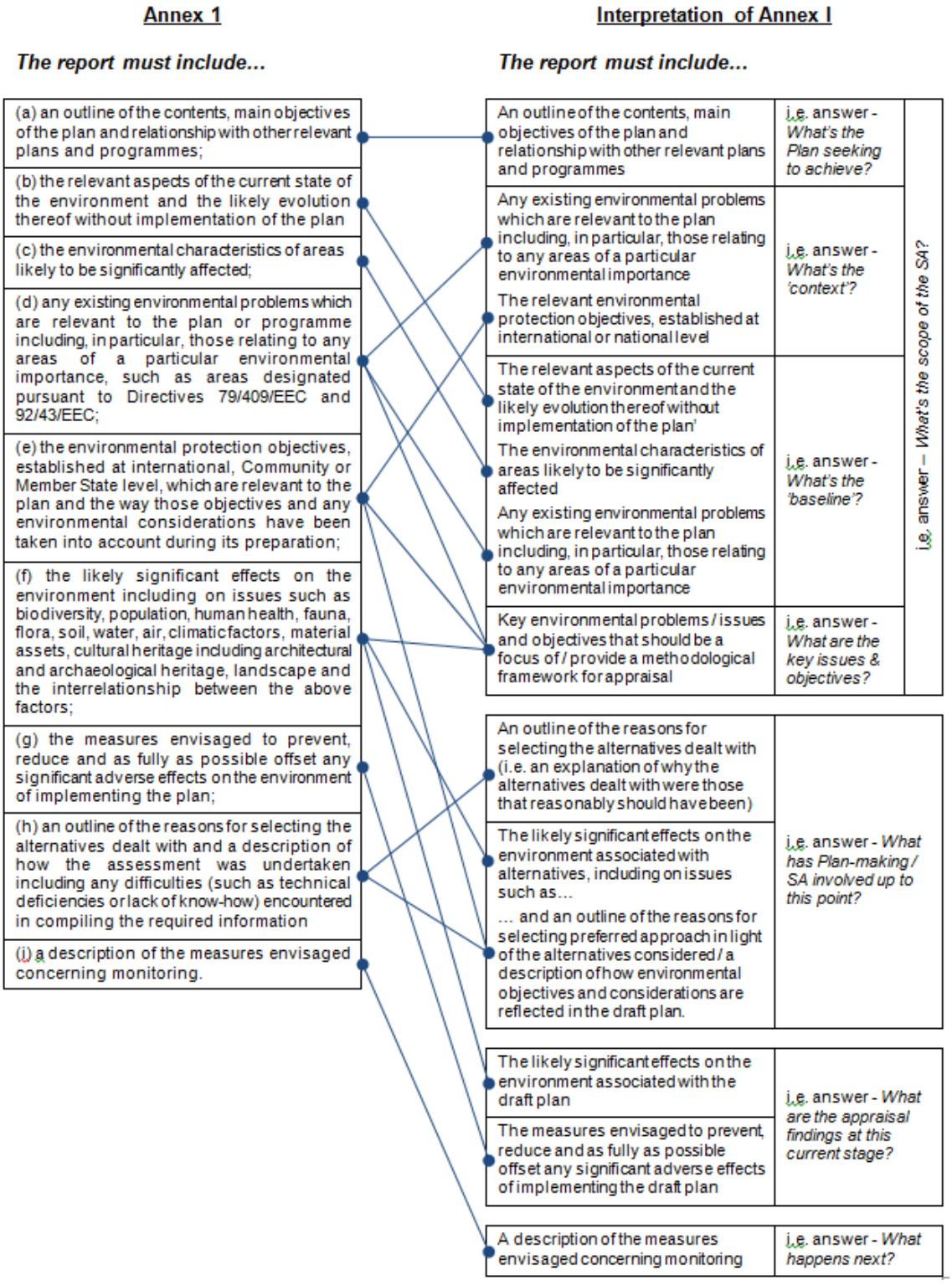
- How this SA findings and the views of consultees are reflected in the adopted Plan, *i.e. bringing the story of 'plan-making / SA up to this point' up to date; and*
- Measures decided concerning **monitoring**.

23.2 Monitoring

At the current stage (i.e. within the SA Report), there is only a need to present measures *envisaged* concerning monitoring. As such, Table 22.1 suggests measures that might be taken to monitor the effects (in particular the negative effects) highlighted by the appraisal of the Plan (see Part 3 of this SA Report).

APPENDIX I: REGULATORY REQUIREMENTS

Annex I of the SEA Directive prescribes the information that must be contained in the SA Report; however, interpretation of Annex I is not straightforward. The table below explains how we (URS) interpret Annex I requirements.



APPENDIX II: ALTERNATIVES APPRAISAL (BROAD SPATIAL APPROACHES TO DEVELOPMENT)

Introduction

As described within Part 2 of the main SA Report document, an interim stage of plan-making / SA involved appraising the following alternative broad spatial approaches to housing distribution.

A	Core Strategy Plus
B	Twin Poles
C	Northern Focus
D	Northampton / (Southern) Focus
E	Dispersal

The interim appraisal findings are presented in full within this Appendix. The appraisal table should be read alongside the corresponding section of Part 2, where an explanation can be found of the degree to which the Joint Planning Unit took on-board SA findings when determining the preferred approach as set out in the Pre-Submission Version of the Joint Core Strategy.

Methodology

For each of the alternatives, the appraisal identifies and evaluates 'likely significant effects' on the baseline / likely future baseline, drawing on the sustainability issues identified through scoping (see Part 1 of the main report) as a methodological framework.

Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the alternatives policy approaches under consideration. The ability to predict effects accurately is also limited by understanding of the baseline and (in particular) the future baseline. In light of this, where likely significant effects are predicted this is done with an accompanying explanation of the assumptions made.[74]

It is important to note that effects are predicted taking into account the criteria presented within Schedule 2 of the Regs.[75] So, for example, account is taken of the probability, duration, frequency and reversibility of effects as far as possible. Cumulative effects are also considered. These effect 'characteristics' are described within the appraisal as appropriate.

Significant Positive effects are illustrated in the tables with green shading next to the relative alternatives and within the appraisal text. Significant negative effects are illustrated with red shading.

In many instances it is not possible to predict significant effects, but it is possible to comment on the merits of alternatives in more general terms. This is helpful, as it enables a distinction to be made between alternatives even where it is not possible to distinguish between them in terms of 'significant effects'.

The following symbols have been used to identify the broad implications of the alternatives against the SA objectives. In some instances there could be both a positive and negative effect recorded, which reflects the fact that the alternatives could have positive effects in some areas, but negative effects elsewhere.

✓ Broadly positive effects

× Broadly negative effects

? Uncertain effect

- Negligible effects

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

[75] Environmental Assessment of Plans and Programmes Regulations 2004

SA topic and Objectives

Accessibility and infrastructure

- To improve accessibility and transport links from residential areas to key services, facilities and employment areas, enhance access to natural environment and recreational opportunities.

CS Plus	✗	Twin poles	✗	Northern	✗	Southern	✗ / ✓	Dispersal	

Discussion of effects

Transport modelling[76] of alternatives A-D indicates that there will be additional traffic flows resulting from each alternative. As would be expected, the distribution in housing growth for each alternative is reflected in where the effects on the network would occur. However, Kettering, in the middle of the north-south corridor shows high additional growth under all the alternatives. The differences between the alternatives are subtle, but some general trends are discussed here. The twin poles and Core Strategy plus alternatives are predicted to have more 'average effects' in any one area *(i.e. the effects are spread more evenly*), whilst the northern focus would have a significant effect on the network around Corby, but a reduced Impact in the south. The southern alternative would have a lower effect on most of the roads, apart from the A509 and B roads more generally. However, in terms of access to jobs and services, this alternative would not promote self-reliance in the south of North Northamptonshire, which could be considered a negative effect. On balance, it is difficult to select a 'preferred approach' in respect of accessibility, as each alternative is likely to present its' own issues and opportunities. With each alternative there would be a need for infrastructure investment to support growth, and these measures could mitigate the potential negative effects that have been recorded at this stage.

Under the dispersed approach, it is implicitly implied that the SUEs would not come forward as quickly as anticipated. Therefore, any associated infrastructure, particularly transport infrastructure would also be anticipated to come ahead at a slower pace, which could lead to congestion problems around the main urban centres of Corby, Kettering, Rushden and Wellingborough. In Rushden for example, the SUE is expected to deliver significant improvements in accessibility to the town centre, particularly the one way transport network, which would be significantly delayed under this approach, and would have subsequent negative effects on regeneration prospects for the town centre.

The distribution of housing under this dispersed approach would tend to be dictated by the housing market; i.e. the more desirable, buoyant locations would therefore need to accommodate a greater proportion of development. This market led option would also see an increase in development at certain market towns and villages, which in the main would not be at a scale that could create the critical mass to support new services, facilities or employment opportunities in these areas. Therefore, it is likely that a greater proportion of residents would need to travel further to access leisure, retail and employment opportunities. This would be a significant issue in the district of Wellingborough, where it is likely that residents in the villages and market towns would need to travel to Wellingborough or Northampton to access higher order services and jobs. This could lead to pressure on the capacity of the A45 around Earls Barton, Wellingborough, Irchester, Rushden and Higham Ferrers for example. In addition, delayed delivery of the SUE at Wellingborough is likely to delay delivery of essential public transport infrastructure improvements, particularly to and at the train station. Slower build out rates at the SUEs will also be challenging for public transport services to the SUEs as it will take longer for bus patronage to reach levels that allow the bus services to become commercial and thus sustainable in the long term. It would also be an issue in Kettering Borough where the majority of villages have limited facilities and people would need to travel to Kettering or the market towns to access facilities and jobs. This would lead to additional traffic on the road network into Kettering where there are current issues with congestion.

Access to education is a particular issue for rural areas, as many rural schools are on constrained sites with limited opportunities for expansion and thus are mostly unable to accommodate additional school places. Therefore, a dispersal approach would inevitably generate longer journey distances and times (mostly by car) for dropping off and collecting children (particularly for secondary schools). In the 'rural north' of the county, access to services and public transport would be a critical issue that would be difficult to resolve.

A dispersed pattern of growth would be unlikely to change existing private vehicle travel volumes around Corby, as the majority of villages rely upon the urban areas anyway, so there is already considerable in-commuting. However the nature of routes taken could change, depending on the distribution of development. Town centre junctions may be likely to be less congested. Under this approach it will be more difficult to deliver public transport improvements, leading to a continuation of unsustainable private vehicle travel patterns. However, for Rushden, greater dispersal may compound congestion problems along the A6/A45 (by increasing rural to urban traffic flows), which is already at capacity in peak times. Similarly, under this approach it may also be necessary to deliver the A45 Stanwick to Thrapston dual carriageway scheme earlier in the plan period to accommodate additional traffic movements. This would also be an issue in Kettering Borough due to increased commuting from the villages into the town. This is likely to increase traffic on the major routes into and around the town, such as the A43 and A14 and will increase pressure on junctions into and within the town. Overall, it is considered that the dispersed approach would have a **significant negative effect** on the baseline with regards to accessibility and infrastructure.

[76] North Northamptonshire Core Strategy Housing Options: DIAMOND Traffic Impact Assessment (2011)

SA topic and Objectives											
Housing • Ensure that new housing provided meets the housing needs of the area, and provide affordable and decent housing for all.											
CS Plus	?	Twin poles	?	Northern	?	Southern	?	Dispersal			

Discussion of effects

Each of the alternatives would be capable of delivering the objectively assessed housing need, which constitutes a **significant positive effect**.

For alternatives A-D a large proportion of the provision would rely upon the development of sustainable urban extensions at the main growth towns of Corby, Kettering, Rushden and Wellingborough to differing extents. Successful delivery of these schemes would help to provide affordable housing in mixed-communities, which would have a positive effect in areas that are most in need of regeneration, such as Corby (*most significantly under alternatives A and C*). However, the complexity of these developments and market conditions could lead to slower delivery of housing, compared to a dispersed approach to development in the villages/rural areas (which are more viable and attractive to the current market). An uncertainty has been recorded for alternatives A-D to reflect the fact that the viability of some developments in the urban areas are considered challenging in the current market. However, this does not mean that such schemes will not come forward over the plan period. Improving market conditions, public funding for key infrastructure, and the flexible application of affordable housing targets should help to bring the SUEs forward. It should also be noted that some of the SUEs are already advancing (such as Priors Hall (North East Corby), which is well underway and at East Kettering), so the timing of delivery is not as much of an issue for some areas.

The distribution of housing would be most balanced under alternative B, which is therefore assumed to provide the most equal spread of 'positive effects' across the districts.

A dispersed approach would be likely to allocate deliverable and viable sites around the market towns and villages. Therefore, it is likely that this approach would help to deliver the objectively assessed housing need in the shorter term. There would be a lower reliance on SUEs, which increases the certainty of housing being delivered due to the less complex nature of development and infrastructure delivery, viability and phasing associated with the build out of the SUEs. In this respect, a dispersed approach would have a **significant positive effect** on the baseline position. However, compared to the proposed Joint Core Strategy, there would be much lower growth in Corby, which could affect the ability to meet needs and regeneration and growth aspirations in this area, should in-migration continue. It would also undermine the long term delivery of housing in North Northamptonshire by diverting market interest and investment away from the SUEs.

Where sites are small scale, it is possible that they would not trigger the affordable housing threshold, which could affect the ability to deliver the level of affordable housing needed. This would be a particular issue for sites in the 'rural north', and smaller sites around villages and market towns. Conversely, increasing the delivery of housing in the market towns and villages could help to provide affordable housing to meet locally generated needs if affordable housing is provided (on larger sites that trigger affordable housing policy thresholds).

SA topic and Objectives
Healthy communities • Improve overall levels of physical, mental and social well-being, and reduce disparities between different groups and different areas. • To improve community safety, reduce the incidences of crime and the fear of crime, a safe place to live. • Value and nurture a sense of belonging in a cohesive community whilst respecting diversity. • To create healthy, clean and pleasant environments for people to enjoy living, working and recreating in and to protect North Northamptonshire and enhance residential amenity.

CS Plus	✓	Twin poles	✓	Northern	✓	Southern	✓/?	Dispersal	✗

Discussion of effects

Alternatives A-D are based upon development in the urban areas; with the growth towns being the focus for growth, followed by smaller (market) towns and then the villages. The central areas of Corby, Wellingborough, Rushden and Kettering each contain pockets of deprivation. The development of mixed-use urban extensions in these settlements could offer improved opportunities for employment and access to an affordable home for populations in these areas; which are key determinants of good health. The delivery of SUEs could also improve access to local opportunities for recreation, and local facilities (*for example new schools and shopping precincts*). However, some of the SUEs are not within close proximity to areas of need/deprivation. So whilst new residents would have access to a healthy, pleasant environment, some existing communities would be unlikely to benefit. Having sais this, central to each of these options would be the provision of Green Infrastructure to help aid integration between new and existing communities. This would help to encourage walking and cycling, having positive effects on health and wellbeing.

Alternatives A-C would each promote greater self-reliance for most parts of North Northamptonshire, which should support better access to goods and services in the urban areas. However, alternative D would promote reliance on Northampton, which could affect investment in new services and facilities in the South of North Northamptonshire; which is considered a potentially negative effect for some communities.

A dispersed approach to development would locate more development in villages and market towns rather than at SUEs in the growth towns. This could have mixed effects in terms of maintaining healthy communities.

Development in some villages would have a minor positive effect in helping to support local businesses, especially in the 'rural north' where alternative locations may be some distance away or by helping to deliver improvements to local leisure and sports facilities (e.g. *Earls Barton Neighbourhood Plan is promoting more growth to help to deliver local sports facilities*). However, the level of growth proposed would be too small to create the critical mass to support significant improvements to education, health and public transport services (for example in Raunds or Mawsley, where it is likely that significant development could be directed through this approach). Therefore, development could have the opposite effect and actually put pressure on facilities that are already at capacity, thus having a negative effect on the health and well-being of residents. The effects of a dispersed pattern of development on an ageing population and reducing mobility are also more likely to be negative. In some circumstances it would be difficult to expand some schools, and any new facilities in rural areas would inevitably need to service a number of villages, meaning that accessibility would not be equal. This would present particular problems in the 'rural north'. In summary, a dispersed approach would entail more residents being located in areas with poor accessibility to community facilities/services and it would be difficult to remedy these issues efficiently.

Increased development pressures at villages may have a negative effect on how residents identify with their areas, if they perceive the character of their community is being changed. This would be an issue for smaller villages in particular, but also for larger villages and market towns if residents perceive their communities to be 'villages' with limited scope for expansion.

Under the dispersed approach, the positive effects of regeneration associated with the SUEs in Corby, Kettering, Rushden and Wellingborough would be less likely to be achieved over the plan period. For example, it may be more difficult to secure the strategic community infrastructure (new schools) and green infrastructure improvements (and these would be delivered later) without later phases of the SUEs being brought on-line during the plan period. This would cause issues at a number of schools which are already near or at capacity and which have limited opportunities for expansion. There would also be a delay in the completion of the SUEs, which would have a temporary adverse effect on the amenity of residents living within or adjoining the SUEs, who would effectively be 'living on a building site' for quite some time. Overall, the dispersed approach is likely to have a negative effect on the wellbeing of communities in terms of maintaining a strong identity and supporting good access to services.

SA topic and Objectives

Biodiversity

- To protect, conserve and enhance biodiversity, geodiversity, wildlife habitats and green infrastructure to achieve a net gain and to avoid habitat fragmentation.

CS Plus	✗ / ✓	Twin poles	✗ / ✓	Northern	✗	Southern	✗ / ✓	Dispersal	

Discussion of effects

Each of the alternatives has the potential for negative effects (✗) on biodiversity due to the potential loss of greenfield sites and open space (*which could provide habitats and linkages between habitats*). Conversely, the development of large SUEs offers the opportunity to enhance biodiversity by creating new or enhanced habitats on poor quality agricultural land for example. A positive effect is therefore recorded for alternatives A-D (✓).

Increased development at the urban centres could also increase recreational pressure on sensitive wildlife sites. This is particularly the case for development that occurs at the towns and villages that run alongside the Nene Valley Gravel Pits SPA. For this reason, alternative C is considered to have a **significant positive effect** as it would result in a lower level of growth at Wellingborough and the Four Towns. Having said this, the development of SUEs in Rushden and Wellingborough could provide opportunities for the delivery of strategic green infrastructure that could help to relieve pressure on the SPA.

A dispersed approach to development would reduce opportunities for enhancement of biodiversity and delay the delivery of green infrastructure at the SUEs. The SUEs are likely to deliver more diverse and greater areas of habitat than a reliance on smaller, dispersed housing sites, which will not be able to deliver the same level of connectivity or enhancement. This is not considered to be a significant effect, because such opportunities would not exist in the absence of the Local Plan. However, spreading development more 'thinly' does reduce the opportunities to secure strategic enhancements and connectivity in biodiversity habitats and is likely to result in the loss of more countryside, thus reducing the potential for positive effects.

In the rural north, a significant increase in development in the villages would be likely to have a negative effect on green infrastructure, in particular parts of Rockingham Forest, which contain SSSIs and local nature reserves; as it may lead to a loss or fragmentation of woodland habitats in this area, and may also put additional recreational pressure on existing areas of accessible open space.

In rural parts of Kettering Borough an increase in development in villages would have a negative impact on green infrastructure through impact on local wildlife sites, SSSI's and areas of woodland as a result of additional recreational pressure and potential loss or fragmentation of existing sites.

The increased spread of development to the villages of Irchester, Earls Barton (*in particular*) and Wollaston under a dispersed option would be likely to put more recreational pressure on the Nene Valley Gravel Pits SPA/Ramsar sites that could have adverse effects on sensitive and internationally significant habitats and protected species. Dispersed development would also require increased development at villages that are within close proximity to the SPA (e.g. Great Doddington and Ringstead) which would present similar issues.

In these areas, it would be less feasible to implement appropriate mitigation measures (*such as the provision of significant alternative recreational space to offset increased pressure*). Therefore the dispersed option could have a major **significant negative effect** on biodiversity, which would need to be assessed through an HRA. The effects would be considerably worse than the proposed Joint Core Strategy approach because strategic green infrastructure would be delivered as part of the SUEs at Rushden and Wellingborough (helping to reduce pressure on the Nene Valley Gravel Pits SPA) as part of the proposed Core Strategy approach.

SA topic and Objectives

Landscape

- To protect and enhance the quality, character and local distinctiveness of the natural and cultural landscape and the built environment.

CS Plus	?	Twin poles	?	Northern	?	Southern	?	Dispersal	?

Discussion of effects

Alternatives A-D focus development towards the growth towns which will help to divert pressure from smaller towns and villages within a rural setting (such as within the Rural North, Oundle and Thrapston). This will help to better protect areas of particular landscape and wildlife sensitivity such as Rockingham Forest. However, it is likely that there would be a requirement for greenfield release under these alternatives, which could have an effect on the character of some natural areas and settlement boundaries.

It is difficult to assess the full effects of each alternative at this strategic level as it depends upon the sites that come forward. However it is assumed that the effects would be easier to mitigate for alternative B (*because the cumulative effects of development would be more evenly spread*) and alternative D (*due to the lower development of land for employment to the south of North Northamptonshire*).

A dispersed approach to development will involve increased development in the market towns and rural villages, which is likely to lead to a **significant adverse effect** on the character of these areas and loss of local distinctiveness. In some areas it is also likely to lead to adverse impacts in terms of the coalescence of villages (*which is a particular issue for development surrounding Wellingborough*).

More dispersed development in the rural north is also likely to have an adverse effect on areas identified as being 'most tranquil' in assessments by the Campaign for the Protection of Rural England[77]. This includes areas surrounding the villages of Pilton and Wadenhoe to the south west of Oundle, and in particular to the North of Oundle in the rural villages within the Kings Cliffe Hills and Valleys Landscape Character Area *(such as Kings Cliffe and Nassington*).

[77] Campaign to Protect Rural England (2007) Mapping Tranquility
http://www.cpre.org.uk/resources/countryside/tranquil-places?start=80

SA topic and Objectives

Cultural heritage

- Protect and enhance sites, features and areas of historic, archaeological, architectural and artistic interest and their settings.

CS Plus	?	Twin poles	?	Northern	× ?	Southern	× ?	Dispersal	

Discussion of effects

There are heritage assets spread across North Northamptonshire in both rural and urban settings; therefore, there is the potential for adverse effects on assets under each of the alternative spatial strategies. At this strategic scale it is difficult to accurately assess what effects would be likely, as this would depend upon the specific sites that come forward under each approach and the design of these developments. However, it is possible to discuss the broad implications of each alternative by examining potential cumulative effects on heritage assets due to focused growth in particular areas.

Alternatives A-D focus development to the growth towns, relying heavily upon sustainable urban extensions. Although there are some designated heritage features on the edge of the growth towns where these SUEs would be located, the SUEs generally do not contain any designated assets. In the larger towns, designated heritage assets are mostly concentrated in the centres, such as for Kettering and Wellingborough, so the effects of urban expansion would not be considered likely to physically alter the setting of these features. Having said this, increased development at the SUEs could lead to increased traffic and congestion in the town centres (*at least whilst strategic transport infrastructure is being established*), which could have a temporary effect on the setting of heritage within the larger town centres.

In addition to development at the SUEs, there would also be a need for some development at smaller towns, and to a lesser extent villages for alternatives A-D. Development in these areas too could have the potential to have effects on cultural heritage depending upon the sites that were developed.

It is difficult to differentiate the effects of alternatives A-D as each would broadly focus on the urban areas, notably the growth towns. There might be greater or lesser effects in different parts of North Northamptonshire, but on balance, each alternative has the potential for effects. Due to the stronger focus of development to the north and south under alternatives C and D, these might have a greater cumulative effect on the setting of heritage assets *(it may be more difficult to avoid the release of sensitive sites, or there could be a greater cumulative effect*) in these areas compared to alternative B, which spreads development more evenly across North Northamptonshire.

Under a dispersed approach, increased levels of development in and around rural villages are likely to increase the potential for adverse effects on the historic character and townscape of these areas. Development would increase the size of these settlements, which could have a **significant adverse effect** on the setting of heritage assets in these locations and how residents identify with their communities. Mitigation measures such as high quality design could help to mitigate effects to an extent, but this would be more difficult to achieve for smaller villages.

SA topic and Objectives

Climate change mitigation and air quality

- Reduce the emissions of greenhouse gases, and the impact of climate change (adaptation).
- To maintain or improve local air quality.

CS Plus	✗ / ✓	Twin poles	✗ / ✓	Northern	✗ / ✓	Southern	✗ / ✓	Dispersal	✗

Discussion of effects

Transport modelling[78] of alternatives A-D indicates that there are subtle differences in the amount of CO_2 that would be emitted from traffic under the different approaches. Alternative 4 would result in fewer CO_2 emissions due to a reliance on Northampton for employment and other services, which is close to the proposed development locations. A focus on the northern areas would generate the highest amount of CO_2 (tonnes per peak hour). Whilst these effects are considered to be negative, they are not thought to be significant when compared against the likely evolution of the baseline as it is predicted that there would be an increase in traffic emissions in the absence of the emerging Joint Core Strategy.

There are currently no Air Quality Management Areas in any parts of North Northamptonshire, and the proposed level of growth under each alternative is not considered likely to significantly worsen air quality. However, the different patterns of growth could lead to differences in the quality of air in different areas. Under any of these options however, there would be a need for transport schemes to mitigate these effects.

It is considered that alternatives A-D each present opportunities to incorporate strategic green infrastructure at the Sustainable Urban Extensions. This could help to reduce flood risk, and improve resilience to other climate change impacts (for example by contributing to a reduction in the urban heat island).

Although, the distribution of housing under a dispersed approach has not been modelled, it is assumed that this would see an increase in development at certain market towns and villages, which in the main would not be at a sufficient scale to generate the critical mass to support new services in these settlements. Therefore, it is likely that a greater proportion of residents would need to travel further to access leisure, retail and employment opportunities.

As much of this development would be in areas that are not accessible by public transport, it is likely that existing private vehicle focused travel patterns would persist or increase under this approach, with an associated increase in emissions from transport. This would be a particular issue in the 'rural north' and may affect the aspirations for modal shift.

A dispersed pattern of growth would be unlikely to have major effects on Corby with regards to traffic movement, as the majority of villages rely upon the urban areas anyway. However the nature of routes taken could change, depending on the distribution of development. It may be more likely that town centre congestion decreased, which would be positive in terms of air quality. However, a dispersed approach in Corby would further encourage private car use, and would reduce the opportunities for public transport improvements, leading to increased emissions of greenhouse gases from transport.

However, for Rushden, greater dispersal may compound congestion problems along the A6/A45 (by increasing rural to urban traffic flows), which is already at capacity in peak times. This could worsen air quality along the primary road network (*although there are no areas where poor air quality would be considered a particular issue*).

In Kettering Borough a more dispersed growth option would also be likely to result in a greater number of vehicle movements. This would add to congestion problems on the main routes into and around Kettering, including the A43, A6 and A14, resulting in an increase in emissions of greenhouse gases from transport.

Overall, it is considered that a dispersed approach could have a negative effect on the baseline position with regards to climate change mitigation and air quality.

In terms of adaptation to climate change, a dispersed approach offers fewer opportunities to secure strategic improvements to green infrastructure in urban areas (which can help to reduce increased flood risk and regulate the urban heat island effect).

[78] North Northamptonshire Core Strategy Housing Options: DIAMOND Traffic Impact Assessment (2011)

SA topic and Objectives

Energy use, waste and minerals

- To mitigate climate change by minimising carbon based energy usage by increasing energy efficiency and to develop North Northamptonshire's renewable energy resource, reducing dependency on non-renewable resources.
- To reduce waste arisings and increase reuse, recycling and composting.
- Ensure the efficient use of minerals and primary resources.

CS Plus	-	Twin poles	-	Northern	-	Southern	-	Dispersal	x

Discussion of effects

Alternatives A-D will all result in an increased level of growth *per se,* which can be considered negative in terms of absolute use of resources and waste generation. However, the development patterns promoted under each alternative make use of existing infrastructure in the urban areas, and provide opportunities to deliver well-designed sustainable urban extensions. Therefore, the per capita use of energy and waste generation might actually decrease. On balance, the effects are considered to be neutral in this respect.

It is not considered that there would be a significant difference in the use of resources for development between alternatives A-D. Although alternative D would deliver a lower level of employment in North Northamptonshire (a*nd hence lower use of natural resources in the area)* this would lead to an increased use of natural resources within Northampton, so the effects would not really be much different at a county level.

A dispersed approach does not make the most effective use of existing infrastructure. Increased development in villages and towns may require upgrades to energy distribution networks for example. A dispersed pattern of development will also mean that an increased amount of waste will be generated in areas that are not easily accessible for existing waste collection. Although these areas are already covered by waste collection services, it could mean that additional trips need to be made to rural areas to collect additional tonnages (*given that waste is not generally being managed at source*). This is less efficient than waste collection routes that are located in urban areas which are more compact and closer to waste transfer stations and vehicle depots. These effects would be most pronounced in areas such as the 'rural north', and less pronounced in areas such as Corby which are relatively 'compact'.

A dispersed pattern of growth has a lower potential to secure higher levels of sustainability in new development. For example, development at SUEs would be more likely to be able to support district heating schemes, and the scale of development would be more feasible for achieving higher standards of sustainability (for example, meeting code level 6 after 2015 rather than code level 5).

SA topic and Objectives

Water

- Maintain or improve the quality of ground and surface water resources and minimise the demand for water.

CS Plus	-	Twin poles	-	Northern	-	Southern	?	Dispersal	×

Discussion of effects

Despite a growing population and increased numbers of households, the overall demand for water is anticipated to decrease due to improvements in technology, water metering and better education around water consumption. This trend would be expected to occur irrespective of the distribution strategy for housing and employment. An increase in development is therefore not anticipated to have a significant effect in this respect.

The Water Cycle Study has also demonstrated that water quality issues should not pose a constraint to housing growth within North Northamptonshire (assuming an urban concentration approach) providing the identified upgrades are provided. It is anticipated that the local sewerage and water supply networks can accommodate growth, but there would be a need for contributions towards improvements from new development, and it may also be necessary to tighten discharge consent at some of the waste water treatment plants to ensure that there are no unacceptable negative effects on ecology. This would be more of an issue for works that discharge into the River Nene catchment.

Under a dispersed approach, the necessary improvements might not be secured as quickly or effectively due to the smaller, incremental nature of development. This could create pressure on the capacity of drainage and sewerage networks, (*with the potential for negative effects on water quality*). For example, the proposed SUE in Kettering would involve improvements to the strategic sewerage network. These upgrades may be delayed if development was to be dispersed to smaller sites in the market towns and rural villages. The SUEs also offer better opportunities to implement water management schemes (*due to the potential to include significant open space as part of the site masterplan*), which can help to regulate water storage and water quality. Therefore, a dispersed approach would be less positive in this respect.

On balance it is considered that a dispersed approach to development is likely to have minor negative effects on water quality.

SA topic and Objectives

Soil and land

- Ensure the efficient use of land and maintain the resource of productive soil.

CS Plus	×	Twin poles	×	Northern	×	Southern	×	Dispersal	

Discussion of effects

Alternatives A-D would all involve the loss of significant amounts of Greenfield land (classified mostly as Grade 3 agricultural land) through the development of the SUEs. Although this only represents a small proportion of the total agricultural land within North Northamptonshire, it is still recorded as a negative effect (×). There could be further loss of greenfield land as part of each alternative, some of which would also be best and most versatile agricultural land. At this stage it is difficult to ascertain the effects fully, as it would depend upon which sites were allocated for development. However, in general terms, alternatives B and D might be expected to have the potential for greater loss of agricultural land, as there would be a requirement for higher levels of development in Kettering / Burton Latimer and around Wellingborough (*compared to alternatives A and C*), which are surrounded by more substantive areas of Grade 2 agricultural land.

A dispersed approach to development would likely require the release of greenfield land around villages and market towns. In some areas, there is sufficient land available on land that is not valued for agriculture. However, the available land in other districts could contain Grade 2 agricultural land. For example, there are significant areas of Grade 2 agricultural land around Kettering and Burton Latimer that would be more likely to be affected. Development to the north of Rothwell would affect Grade 2 agricultural land, as could certain development sites in Earls Barton, Wollaston and throughout the 'rural north'.

Cumulatively, there is the potential for **significant negative effects** through the irreversible loss of Grade 2 and Grade 3 agricultural land. The loss of land would be greater than if housing was focused at the identified SUEs and other sites around the main settlements, which largely do not consist of Grade 2 agricultural land.

SA topic and Objectives									
Flooding • Reduce the impact of flooding and avoid additional risk.									
CS Plus	-	Twin poles	-	Northern	-	Southern	-	Dispersal	×?

Discussion of effects

Alternatives A-D each seek to achieve a challenging level of growth that exceeds what is likely to occur with natural population change. Flooding from sewers is an issue in the 'Urban Core of North Northamptonshire', which includes Corby, Kettering, Wellingborough and Rushden. Therefore, an increased amount of hard standing has the potential to increase the risk of flooding by reducing permeability and increasing surface water run-off.

However, each of the alternatives A-D are predicated on the development of urban extensions, which provide the opportunities to mitigate flood risk through the inclusion of natural flood management schemes as part of the site development. In fact, there is a commitment to reduce surface water run-off below current run-off rates on some of the SUEs, which would have positive effects. The SUEs will also be required to contribute to upgrades to the drainage and sewerage networks, and this ought to be delivered in a well-planned manner as part of site masterplanning and discharge of planning conditions. Taking these factors into account, it is considered that the effects of alternatives A-D would on balance be neutral. However, each alternative presents the potential for localised adverse effects on flood risk that would need to be explored in greater detail at project level, or through lower-level development plans (*such as allocations plans and neighbourhood plans*).

A dispersed approach to development could be delivered without having to locate new development in areas at risk of flooding (i.e. there is sufficient land available in areas which are not at risk of flooding (Flood Zone 1).

Although the majority of development would be likely to take place on greenfield land, it should be possible to secure mitigation measures to ensure that there is no net increase in surface water run-off or flood risk. The effects are therefore not deemed to be significant. However, this approach does not offer the same opportunities to help deliver strategic water management schemes that an approach focusing on delivery of the SUEs does. For example, the water management strategy for the West Corby SUE seeks to reduce the run-off from the site from its existing level. This would be more difficult to achieve on smaller sites that had less open space available and where viability may be an issue. Therefore, a negative effect has been recorded for the dispersal option (×). There is a degree of uncertainty around this though, as it is dependent upon scheme design, and whether contributions are secured towards schemes 'off-site'.

SA topic and Objectives

Employment and town centres

- Maintain and enhance employment opportunities and to reduce the disparities arising from unequal access to jobs.
- Retain and enhance the factors which are conducive to wealth creation, including infrastructure and the local strengths and qualities that are attractive to visitors and investors.
- To improve overall levels of education and Skills.
- Protect and enhance the vitality and viability of town centres and market towns.

CS Plus		Twin poles		Northern		Southern	✓	Dispersal	✓✗

Discussion of effects

Urban concentration

Each of the alternatives seeks to deliver a challenging level of growth in housing and employment, so they should all have a **significant positive effect** on the economy in this respect. The alternatives also seek to deliver strategic employment development around the growth towns, including at a number of Sustainable Urban Extensions. There is an aspiration to deliver high quality employment uses, and the SUEs will also help to fund infrastructure improvements that would help to improve the attractiveness of the employment offer in these areas.

A key objective of the spatial strategy is to achieve greater self-sufficiency in housing and employment within North Northamptonshire. There are differences in the alternatives in this respect.

Alternative D places an increased reliance on Northampton for jobs, which would have a **significant negative effect** in terms of assisting in local wealth creation, and local access to jobs. It would also discourage investment in town centres, potentially affecting their viability. Despite these negative effects, positive effects have been recorded for alternative D too, as there would still be creation of jobs and investment in the main towns, albeit at a lower level compared to alternatives A-C.

Dispersed development

Dispersed development would divert investment away from the growth towns and towards the villages and market towns. This could have some minor positive effects on those communities, for example, by supporting local services, increasing the working age population in rural areas (particularly the 'rural north') and leading to small scale employment creation. Investment in these areas could also help to support the vitality and viability of market towns and villages.

However, these areas are less attractive for strategic employment development compared to the growth towns. Under this dispersed approach, the SUEs would come forward at a slower rate or not at all, and this could affect the investment in infrastructure that is required to support growth and regeneration around centres such as Corby and Kettering. For the Rushden East SUE and Wellingborough East SUE in particular, this forms an important part of the employment strategy for the area, with aspirations and allocation of land to diversify economic activity and improve the quality of employment space and jobs. A dispersed approach would detract from the necessary investment required to achieve this strategy. In addition, the Rushden East SUE is expected to deliver improvements to the accessibility of the town centre, which should lead to increased economic activity and investment. With delayed delivery of the SUE, these regeneration aspirations will be more difficult to deliver during the plan period.

Overall, the dispersed approach is likely to result in a mismatch between the amount of homes delivered and the ability to generate new employment opportunities. Therefore, in some areas there may be an increased dependence on commuting to access jobs. The slower delivery of transport infrastructure improvements could also detract potential investors from locating in strategic town centres.

On balance, the dispersed approach would have a limited effect on the economy compared to the projected baseline position (without a Local Plan). However, this approach misses opportunities to diversify and strengthen the local economy by focusing on strategic development in key urban areas.

SA Topic	Core Strategy+	Twin Poles	Northern	Southern	Dispersal
Accessibility and transport	x	x	x	x / ✓	
Housing	?	?	?	?	
Healthy communities	✓	✓	✓	✓/?	x
Biodiversity	x / ✓	x / ✓	x	x / ✓	
Landscape	?	?	?	?	?
Cultural heritage	?	?	x?	x?	
Climate Change and air quality	x / ✓	x / ✓	x / ✓	x / ✓	x
Energy use, waste and minerals	-	-	-	-	x?
Water	-	-	-	-	x?
Soil and Land	x	x	x	x	
Flooding	-	-	-	-	x?
Employment and centres				✓	✓x

Summary

Although alternative E (Dispersed development) may present very attractive opportunities for housing development for the development industry, it is clearly the least sustainable alternative when considered against the full range of sustainability factors. This scenario would be likely to have a **significant negative effect** on sensitive biodiversity habitats, landscapes and agricultural land. It would also locate significant numbers of people in areas that have poor accessibility to services and jobs. Whilst this could help to support the local economies where growth occurred, it is unlikely that the critical mass would be created to support enhanced connectivity and higher order public services, which is considered to be a **significant negative effect.**

Alternatives A-D are difficult to distinguish in some ways as each involves the same amount of housing and employment growth (*apart from alternative D for employment*), albeit distributed differently. Essentially, each option would have positive effects on housing delivery and the health and wellbeing of communities, but the effects would be more pronounced in different areas under the various alternatives. It is considered that alternatives A and B perhaps spread the benefits (*and potential adverse effects*) of development more evenly compared to alternatives C and D, and are therefore slightly more balanced in terms of supporting population and employment growth across the County in a way that benefits communities.

Alternative D is considered less positive compared to alternatives A-C as it would not promote self-reliance in employment, which is considered to be a **significant negative effect**.

A focus on the North associated with alternative C could have the potential for a **significant positive effect** on biodiversity as it would direct some growth away from the towns in close proximity to the Nene Valley Gravel Pits SPA *(compared to the current pattern of growth).* This would help to reduce recreational pressure and other disturbances to wildlife habitats in the South. However, an increased amount of development in the North (or South for that matter), could have the potential for a greater cumulative effect on landscape and culture heritage.

APPENDIX III: STRATEGIC SITE APPRAISAL METHODOLOGY

The assessment matrix below was used to assess each of the short-listed strategic site options (the reasonable alternatives) described in **Section 16** of this SA Report. The matrix is structured the same as the SA Framework to illustrate how the criteria reflect the key sustainability issues identified through the SA process. In some instances, it has not been possible or appropriate to collect information for the criteria, and the reasons for this are made clear in the matrix.

A 'traffic light 'system has been used to indicate how well sites perform against the SA criteria. In broad terms, the colour coding used is as follows:

Green = no negative impact identified;

Amber = some issue/impact; and

Red = major negative impact.

A traffic light system has been used in preference to a numerical scoring system as the latter would imply that the different indicators were directly comparable and that the scores could simply be added together to give a total that would determine the best options.

The purpose of this assessment is to identify where potential conformity and conflicts with the criteria arise and assist in identifying issues where further work would need to be undertaken.

It should be noted that where an issue is highlighted in red it does not necessarily imply that the particular constraint cannot be mitigated. The purpose of assessing each site against the sustainability criteria is to produce a consistent and comparable assessment which can be used to enable a judgement to be made as to which sites ought to be included in the Plan.

The Background Paper on Strategic Sites for Employment and Housing set out further information on the thresholds and factors that have been used to determine the score for each criterion. Individual proformas have also been produced for each site option; providing additional commentary under each of the criteria listed below.

Sustainability Appraisal Topic	Sustainability Appraisal Objective	Decision making criteria/source	Symbol
Social Progress which recognises the needs of everyone			
Accessibility	To improve accessibility and transport links from residential areas to key services, facilities and employment areas and enhance access to natural environment and recreational opportunities	***Proximity to services***	
		Good proximity	
		Medium proximity	
		Poor proximity	
		Proximity to the trunk/principal road network	
		Well located	
		Medium proximity	
		Poorly located	
		Connectivity to the existing urban area (Urban Structures Study)	
		Site well connected (score of A in the Urban Structures Study (USS))	
		Some connectivity issues (score of B or C in USS)	
		Site poorly connected (score of D or E in USS)	
		Impact on the existing form of the settlement *–see below*	
Housing	Ensure that new housing provided meets the housing needs of the area, provide affordable and decent housing for all	*All housing sites are likely to offer similar opportunities to meet this objective – it has not therefore been used as a criterion for choosing between sites.*	
Health	Improve overall levels of physical and mental health, reduce the disparities between different groups and different areas	***Impact on existing sports and recreation facilities (local authority)***	
		No impact	
		The loss of facilities could be mitigated	
		Loss of facilities – unlikely that this impact could be mitigated	
		Impact of an existing notifiable installation, including pipelines, on the development (HSE)	
		Not within the specified consultation zone of a notifiable installation	
		Within the specified consultation zone of a notifiable installation – development, however, is unlikely to be precluded	
		Within a specified consultation zone of a notifiable installation - development likely to be precluded	
Crime	To improve community safety, reduce the incidences of crime and the fear of crime and anti-social behaviour – a safe place to live	*All sites are likely to offer similar opportunities to meet this objective – it has not therefore been used as a criterion for choosing between sites.*	
Community	Value and nurture a sense of belonging in a cohesive community whilst respecting diversity	*All sites may offer opportunities to contribute towards this objective – it has not therefore been used as a criterion for choosing between sites.*	
Skills	To improve overall levels of education and skills	*Not relevant to the assessment – it will not assist in choosing between sites.*	
Liveability	To create healthy, clean and pleasant environments for people to enjoy living, working and recreating in and to protect and enhance residential amenity	***Impact of existing noise or odour (major road, railway, domestic waste disposal site or other source) on the development (local authority)***	
		Development not significantly affected.	
		Development affected - but this could be mitigated.	
		Development significantly affected – unlikely that this could be satisfactorily mitigated.	

		Impact of the development on neighbouring land uses (local authority)	
		Compatible with neighbouring uses	
		Compatible, subject to mitigation measures	
		Incompatible – unlikely that the impact could be mitigated	
Effective protection of the environment			
Biodiversity	To protect, conserve and enhance biodiversity, geodiversity, wildlife habitats and green infrastructure to achieve a net gain and to avoid habitat fragmentation	***Impact on biodiversity*** **(RNRP assessment/ SHLAA)**	
		Within an area of low sensitivity or not within an area of sensitivity	
		Within an area of medium sensitivity	
		Within an area of high sensitivity	
		Impact of the development on a protected species or on a site recognised for its wildlife or geological importance (local authority)	
		Unlikely to have an adverse impact	
		Likely to have an adverse impact, although it is likely that this could be mitigated	
		Major adverse impact - less certain that this could be mitigated	
Landscape	To protect and enhance the quality, character and local distinctiveness of the natural and cultural landscape and the built environment	**Impact on visual landscape (RNRP assessment/ SHLAA)**	
		Within an area of low sensitivity or not within an area of sensitivity	
		Within an area of medium sensitivity	
		Within an area of high sensitivity	
		Impact on the existing form of the settlement	
		Significant positive impact (e.g. gateway development or redevelopment of brownfield land in a prominent location)	
		Neutral impact on the form and character of the settlement	
		Significant adverse impact (e.g. would affect prominent vistas/views; result in coalescence with neighbouring settlement or is significantly detached from the settlement)	
Cultural heritage	Protect and enhance sites, features and areas of historic, archaeological, architectural and artistic interest and their setting	***Impact on heritage*** **(RNRP assessment/ SHLAA)**	
		Within an area of low sensitivity or not within an area of sensitivity	
		Within an area of medium sensitivity	
		Within an area of high sensitivity	
		Impact on listed buildings, conservation areas, schedule ancient monuments and historic parks and gardens (local authority)	
		Unlikely to have an adverse impact	
		Likely to have an adverse impact, although this could probably be mitigated	
		Major adverse impact - less certain that this could be mitigated	
Climate change	Reduce the emissions of greenhouse gases and impact of climate change (adaptation and mitigation)	*All sites are likely to offer similar opportunities to meet this objective; it is not therefore a criterion for choosing between sites.*	
Prudent use of natural resources			
Air	To maintain or improve local air quality	See 'liveability' (above) - impact on existing noise or odour	

Water	Maintain or improve the quality of ground and surface water resources and minimise the demand for water	*All sites are likely to offer similar opportunities to minimise the demand for water and this objective has not therefore been used as a criterion for choosing between sites.*	
Natural hazard	Reduce impact of flooding and avoid additional risk	***Impact on flood risk (Strategic Flood Risk Assessment)***	
		The site is entirely within flood zone 1	
		The site is within (either entirely or in part) flood zone 2 or else part of the site (though not the bulk) is within zone 3	
		The site is entirely, or largely, within flood zone 3	
Soil and land	Ensure efficient use of land and maintain the resource of productive soil	***Impact on the use of previously developed land (local authority)***	
		Development would be entirely, or essentially, on brownfield land	
		A significant proportion of the site is greenfield.	
		Development is entirely, or essentially, greenfield	
		Impact on the quality of agricultural land Agricultural Land Classification Map)	
		Unlikely to result in the loss of best and most versatile agricultural land (grades 1, 2 or 3a)	
		Likely to result in the loss of best and most versatile agricultural land.	
Minerals	Ensure the efficient use of minerals and primary resources	***Impact on the stock of minerals (Minerals and Waste Development Framework Proposals Map)***	
		The site is not on land allocated for mineral extraction	
		The site is on land allocated for mineral extraction	
Energy use	To mitigate climate change by minimising carbon based energy usage by increasing energy efficiency and to develop North Northamptonshire's renewable energy resource, reducing dependency on non-renewable resources	*All sites are likely to offer similar opportunities to meet this objective; it is not therefore a criterion for choosing between sites.*	
Waste	To reduce waste arisings and increase reuse, recycling and composting	*All sites are likely to offer similar opportunities to meet this objective; it is not therefore a criterion for choosing between sites.*	

Maintenance of economic growth and employment			
Employment	Maintain and enhance employment opportunities and to reduce the disparities arising from unequal access to jobs.	*All employment sites are likely to offer similar opportunities to meet this objective; it is not therefore a criterion for choosing between sites.*	
Wealth creation	Retain and enhance the factors which are conducive to wealth creation, including personal creativity, infrastructure and the local strength and quality's that are attractive to visitors and investors	***Availability - the likelihood of the site being available for development (SELA/SHLAA)***	
		Interest in developing the site and willing land owner(s)	
		Interest in developing the site is unknown	
		No interest in developing the site and/or known to be in complex/multiple ownership	
		Deliverability - likelihood of site coming forward for development (SELA/SHLAA)	
		High (score of 4 or above in the SELA or SHLAA)	
		Medium (score of 2 or 3 in the SHLAA or 2 or more, but less than 4, in the SELA)	
		Low (score of less than 2 in the SELA or the SHLAA)	
		Ease of utility provision (SELA/SHLAA)	
		Very easy or easy to service	
		Average or moderately easy to service	
		Least easy to service	
		Access infrastructure (subject to a site- specific Transport Assessment) (NCC highways)	
		There are an adequate number of potential access points relative to the site. Minimal access infrastructure is required.	
		Unclear whether the number of access points needed could be achieved - more investigation required	
		It is clear that access cannot be gained to the site or, alternatively, high cost infrastructure would be required (e.g. access bridge etc.)	
		Capacity of the highway network (subject to a site-specific Transport Assessment) (NCC highways)	
		Sufficient capacity exists on the network and no capacity enhancements would be required to facilitate development	
		Known capacity constraints, but schemes identified or solutions could be achieved at a good cost benefit	
		Known constraints in near vicinity - such as link capacity or junction capacity. The cost of the scheme would be a significant constraint	
Town centres	Protect and enhance the vitality and viability of town centres and market towns	*Not relevant to this assessment. It will not assist in choosing between sites.*	

APPENDIX IV: SUMMARY OF STRATEGIC SITE APPRAISALS

Map reference		Proximity to services	Proximity to trunk/principal road junction	Connectivity to existing urban area	Access infrastructure	Capacity of highway network	Ease of utility provision	Impact of an existing notifiable installation, including pipelines, on the development	Impact on existing sports and recreation facilities	Impact of existing noise or odour (major road, railway, domestic waste disposal site or other source) on the development.	Impact of the development on neighbouring land uses	Impact on biodiversity	Impact of the development on a protected species or on a site recognised for its wildlife or geological importance	Impact on visual landscape	Impact on heritage	Impact on listed buildings, conservation areas, scheduled ancient monuments and historic parks/gardens	Impact on the existing form of the settlement	Impact on flood risk	Impact on the use of previously developed land	Impact on the quality of agricultural land	Impact on the stock of minerals	Availability	Deliverability	Total quality of site	Shlaa category
	Corby																								
	Employment sites																								
8	Gretton Brook Road, Corby																								
14	Land at Cockerell Road																								
19	Rockingham Enterprise Area																								
20	Land at Geddington Road																								
	Mixed use sites																								
7	Corby West																								4
92	Corby West (additional land)																								4
9	Corby South East																								2
21	South West Corby																								4
	Residential sites																								
12	Weldon Park extension																								4
25	Land south of Great Oakley																								2
26	Land at New Grange Farm, Stanion																								3
	Employment/mixed use or residential																								
91	Land west of Uppingham Road																								4

Map reference		Proximity to services	Proximity to trunk/principal road junction	Connectivity to existing urban area	Access infrastructure	Capacity of highway network	Ease of utility provision	Impact of an existing notifiable installation, including pipelines, on the development	Impact on existing sports and recreation facilities	Impact of existing noise or odour (major road, railway, domestic waste disposal site or other source) on the development.	Impact of the development on neighbouring land uses	Impact on biodiversity	Impact of the development on a protected species or on a site recognised for its wildlife or geological importance	Impact on visual landscape	Impact on heritage	Impact on listed buildings, conservation areas, scheduled ancient monuments and historic parks/gardens	Impact on the existing form of the settlement	Impact on flood risk	Impact on the use of previously developed land	Impact on the quality of agricultural land	Impact on the stock of minerals	Availability	Deliverability	Total quality of site	Shlaa category
	East Northants																								
	Employment sites																								
98	Nene Valley Farm, Rushden																								
68	Thrapston - Land to North East (E of A605)																								
	Mixed use sites																								
38	Irthlingborough West																								2
39	Irthlingborough North - West of Crow Hill/ north of A6																								
93	Thrapston West (A14 jcn 2)																								3
94	Middle End, Raunds																								3
	Residential sites																								
35	Duchy Farm, Chelveston Rd, Higham Ferrers																								3
58	Raund West																								3
	Kettering																								
	Employment sites																								
83	Burton Latimer - East of Higham Rd																								
84	Desborough - Stoke Rd																								
42	Kettering North (Weekley Wood Development Area)																								

		Proximity to services	Proximity to trunk/principal road junction	Connectivity to existing urban area	Access infrastructure	Capacity of highway network	Ease of utility provision	Impact of an existing notifiable installation, including pipelines, on the development	Impact on existing sports and recreation facilities	Impact of existing noise or odour (major road, railway, domestic waste disposal site or other source) on the development.	Impact of the development on neighbouring land uses	Impact on biodiversity	Impact of the development on a protected species or on a site recognised for its wildlife or geological importance	Impact on visual landscape	Impact on heritage	Impact on listed buildings, conservation areas, scheduled ancient monuments and historic parks/gardens	Impact on the existing form of the settlement	Impact on flood risk	Impact on the use of previously developed land	Impact on the quality of agricultural land	Impact on the stock of minerals	Availability	Deliverability	Total quality of site	Shlaa category
43	Kettering South																							
60	Rothwell - land south east of A14/A6jcn																							
86	Rothwell - Land adj cemetery (south of A14)																							
	Mixed use sites																							
50	West Kettering																							3
45	Land at Kettering Hub																							3
59	Rothwell North																							2
95	Kettering East (additional land)																							4
	Residential sites																							
4	Burton Latimer - Land to the south-east																							2
5	Burton Latimer North																							3
6	Burton Latimer – South-west																							3
33	Desborough West																							3
34	Desborough - Humfrey's Lodge																							3
48	North Kettering A																							3
49	North Kettering B																							3

		Proximity to services	Proximity to trunk/principal road junction	Connectivity to existing urban area	Access infrastructure	Capacity of highway network	Ease of utility provision	Impact of an existing notifiable installation, including pipelines, on the development	Impact on existing sports and recreation facilities	Impact of existing noise or odour (major road, railway, domestic waste disposal site or other source) on the development.	Impact of the development on neighbouring land uses	Impact on biodiversity	Impact of the development on a protected species or on a site recognised for its wildlife or geological importance	Impact on visual landscape	Impact on heritage	Impact on listed buildings, conservation areas, scheduled ancient monuments and historic parks/gardens	Impact on the existing form of the settlement	Impact on flood risk	Impact on the use of previously developed land	Impact on the quality of agricultural land	Impact on the stock of minerals	Availability	Deliverability	Total quality of site	Shlaa category
	Wellingborough																								
	Employment sites																								
96	Wellingborough - North of Finedon Rd Industrial Estate																								
97	Wellingborough – North of Finedon Rd Industrial Estate																								
	Mixed use sites																								
70	Wellingborough -Wilby Grange (Prospect Park)																								3
71	Wellingborough - Stanton Cross (additional land to East)																								4
77	Wellingborough - west (between Wilby and Park Farm Industrial Estate)																								3



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