



## **Sustainability Appraisal (SA) of the Joint Core Strategy for Broadland, Norwich and South Norfolk**

**SA for the Broadland part of the Norwich Policy Area following  
the High Court ruling of 24 February 2012**



Main Report

December 2012

Prepared for:  
Greater Norwich  
Development  
Partnership (GNDP)

## REVISION SCHEDULE

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## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2</b>	<b>WHAT IS THE PLAN SEEKING TO ACHIEVE?.....</b>	<b>5</b>
<b>3</b>	<b>WHAT'S THE SCOPE OF THE SA? .....</b>	<b>8</b>
<b>4</b>	<b>WHAT REASONABLE ALTERNATIVES HAVE BEEN CONSIDERED? .....</b>	<b>30</b>
<b>5</b>	<b>HOW HAS THE APPRAISAL BEEN UNDERTAKEN? .....</b>	<b>60</b>
<b>6</b>	<b>WHAT ARE THE APPRAISAL FINDINGS AND RECOMMENDATIONS?.....</b>	<b>61</b>
<b>7</b>	<b>WHAT ARE THE NEXT STEPS (INCLUDING MONITORING)? .....</b>	<b>96</b>

### Figures

- Figure 4.1: The process for identifying 'reasonable alternatives'
- Figure 4.2: Possible areas for strategic growth in the Norwich Policy Area
- Figure 4.3: Housing distribution alternative one
- Figure 4.4: Housing distribution alternative two
- Figure 4.5: Housing distribution alternative three

### Tables

- Table 1.1: Questions that must be answered (sequentially) within the SA Report
- Table 1.2: Structure of this SA Report
- Table 3.1: Summary of the scoping process
- Table 3.2: SA objectives and decision aiding questions
- Table 4.1: Potential for combining sectors
- Table 4.2: Potential for individual locations within South Norfolk to accommodate strategic growth
- Table 4.3: Potential for individual locations within Broadland to accommodate strategic growth
- Table 4.4: Potential for combinations of individual locations to accommodate strategic growth
- Table 4.5: Conclusions on identified scale of potential growth by sector
- Table 4.6: Growth Opportunities - where could the 7,000 homes potentially go?
- Table 4.7: Opportunities for distributing 7,000 remitted dwellings
- Table 6.1: Appraisal of reasonable alternatives
- Table 6.2: Appraisal of the 'draft plan' (i.e. the Proposed Submission Content)
- Table 6.3: Further information on the nature of effects

### Appendices

- Appendix A: Judgment of the High Court
- Appendix B: Order of the High Court
- Appendix C: 2007 SA Scoping report
- Appendix D: Housing Delivery Implications
- Appendix E: Norwich Housing Allocations in Relation to the JCS Housing requirement
- Appendix F: The Potential for a Small Sites Allowance in the South Norfolk Part of the NPA
- Appendix G: Assessment of Dispersal Options
- Appendix H: Assessment of Small Sites Allowance
- Appendix I: Evaluation of Zero Small Sites Allowance
- Appendix J: Identification of Suitable Combination Sectors
- Appendix K: Analysis of Scale of Strategic Growth
- Appendix L: Suitability of Individual and Combination Sectors for Strategic Scale Growth
- Appendix M: Updated Review of Relevant Plans, Programmes and Strategies
- Appendix N: 2010/11 Sustainability Baseline Data
- Appendix O: Papers presented to elected members to inform the choice between alternatives

## 1 INTRODUCTION

### 1.1 Background

- 1.1.1 The Joint Core Strategy for Broadland, Norwich and South Norfolk (JCS) was adopted in March 2011. A legal challenge to the adoption of the JCS was received on 3 May 2011 from Stephen Heard, Chairman of Stop Norwich Urbanisation. High Court Judge Mr Justice Ouseley made his judgment on 24 February 2012 (see Appendix A) and published his final order (see Appendix B) on 25 April 2012.
- 1.1.2 Mr Justice Ouseley found that those parts of the Joint Core Strategy concerning the distribution of housing and associated development (a total of 9,000 dwellings<sup>1</sup> and associated development) in the Broadland part of the Norwich policy area (NPA), including the North East Growth Triangle should be remitted for further consideration. He also called for a new Sustainability Appraisal (SA) to be prepared covering the remitted parts of the plan, including reasonable alternatives, if any. The parts affected by the judgment are referred to as the 'remitted text'.
- 1.1.3 The local planning authorities continue to co-ordinate their work on the JCS through the Greater Norwich Development Partnership (GNDP). URS has been commissioned by the Greater Norwich Development Partnership (GNDP) to undertake the Sustainability Appraisal

### 1.2 Sustainability Appraisal

- 1.2.1 Under the Planning and Compulsory Purchase Act (as amended), Development Plan Documents (DPDs) – the statutory parts of the Local Plan – must undergo a Sustainability Appraisal (SA). DPDs include core strategies, in this case the JCS. SA involves identifying the likely effects of a DPD on the economy, the community and the environment – the three dimensions of sustainable development – with a view to avoiding and mitigating adverse impacts and maximising positive ones.
- 1.2.2 In developing DPDs, local planning authorities must also undertake a Strategic Environmental Assessment (SEA) to identify and address the likely effects of the plan on the environment. SEA is required under EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive'). The Directive is implemented in England through the Environmental Assessment of Plans and Programmes Regulations 2004.
- 1.2.3 In practice, SEA can be undertaken as part of a wider SA. The Government's Plan Making Manual, which remains extant, states that "*The sustainability appraisal process incorporates the requirements of the EU Strategic Environmental Assessment (SEA) Directive 2001/42/EC or 'SEA Directive'... However, the sustainability appraisal covers wider social and economic effects of plans, as well as the more environmentally-focused considerations in the Directive*".<sup>2</sup>

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<sup>1</sup> Plus an additional 3,000 outside of the plan period

<sup>2</sup> CLG Plan making manual available at: [www.pas.gov.uk/pas/core/page.do?pagelid=109798](http://www.pas.gov.uk/pas/core/page.do?pagelid=109798)

- 1.2.4 The SEA Directive is procedural in nature and sets out a series of steps which must be undertaken as part of the assessment. In particular, a report must be prepared in which the *“likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated”*. Furthermore, the report should set out *“an outline of the reasons for selecting the alternatives dealt with”*, i.e. the rationale behind the alternatives considered and the rationale for selecting preferred alternatives. This report, referred to as the ‘environmental report’ in the Directive but as the ‘SA Report’ in this case, should then be published alongside the draft plan for consultation.
- 1.2.5 Annex I to the Directive prescribes the information that must be included in the report. Providing this information involves answering a sequence of nine questions - see Table 1.1

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

	SA QUESTION	CORRESPONDING REQUIREMENT OF THE SEA DIRECTIVE (THE REPORT MUST INCLUDE...)
What is the scope of the appraisal?	What is the plan seeking to achieve?	<b>“an outline of the contents, main objectives of the plan</b> and relationship with other relevant plans and programmes” (Annex I(a))
	What’s the sustainability ‘context’?	“an outline of the contents, main objectives of the plan and <b>relationship with other relevant plans and programmes</b> ” (Annex I(a)) <b>“the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan</b> and the way those objectives and any environmental considerations have been taken into account during its preparation” (Annex I(e))
	What’s the sustainability ‘baseline’?	<b>“the relevant aspects of the current state of the environment</b> and the likely evolution thereof without implementation of the plan” (Annex I(b)) <b>“the environmental characteristics of areas likely to be significantly affected”</b> (Annex I(c))
	How would the sustainability baseline evolve without implementation of the plan?	“the relevant aspects of the current state of the environment and <b>the likely evolution thereof without implementation of the plan</b> ” (Annex I(b))
	What are the key sustainability issues that should be a particular focus of the appraisal?	<b>“any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance,</b> such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC” (Annex I(d))
	What reasonable alternatives have been considered in developing the plan?	<b>“an outline of the reasons for selecting the alternatives dealt with,</b> and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h))
	How has the appraisal been undertaken?	“an outline of the reasons for selecting the alternatives dealt with, and <b>a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information</b> ” (Annex I(h)) “the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan <b>and the way those objectives and any environmental considerations have been taken into account during its preparation</b> ” (Annex I(e))
	What are the appraisal findings and recommendations?	<b>“the likely significant effects on the environment,</b> including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors” (Annex I(f)) <b>“the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects</b> on the environment of implementing the plan” (Annex I(g))
	What are the next steps (including plan monitoring)?	<b>“a description of the measures envisaged concerning monitoring...”</b> (Annex I(i))

### 1.3 The Plan-making / SA process

1.3.1 The Government advises that SA should form an integrated part of the plan preparation process.<sup>3</sup> In this case, the following approach has been taken to plan-making and SA:

- Following the legal challenge, between April and July 2012, the GNDP authorities developed a series of reasonable alternatives for accommodating strategic growth within the Norwich Policy Area
- URS undertook an assessment of these alternatives in June/July 2012, the findings of which were fed back to the GNDP and debated by Councillors on the GNDP policy group in July 2012 and subsequently by the individual Councils (the minutes from these meetings are publicly available)
- Following Councillor endorsement of a preferred alternative, the GNDP finalised the Proposed Submission Content for public consultation and URS finalised the SA Report (August 2012)
- Following publication of the Proposed Submission Content and the SA Report (August 2012), the Local Planning Authorities of Broadland District Council, Norwich City Council and South Norfolk Council have chosen to submit the Proposed Submission Content
  - This decision is taken on the basis that, having considered all the representations, the approach set out within the Proposed Submission Content is the most appropriate means of dealing with development pressures locally to 2026 when considered against all reasonable alternatives.
- **This Report** is an update to the August 2012 SA Report. This Report will be submitted alongside the Plan document.
  - It is important to note that the substantive content of this Report is unaltered from that of the SA Report published previously (August 2012). This reflects the fact that no changes have been made to the Plan subsequent to publication.

### 1.4 Structure of this SA Report

1.4.1 This report is largely structured according to the appraisal questions set out in Table 1.1, above. Table 1.2 presents the structure of the report.

Table 1.2: Structure of this SA Report

APPRAISAL QUESTION	CHAPTER
What is the plan seeking to achieve?	Chapter 2
What's the sustainability 'context'?	Chapter 3
What's the sustainability 'baseline'?	
How would the sustainability baseline evolve without implementation of the plan?	
What are the key sustainability issues that should be a particular focus of the appraisal?	Chapter 4
What reasonable alternatives have been considered in developing the plan?	
How has the appraisal been undertaken?	Chapter 5
What are the appraisal findings and recommendations?	Chapter 6
What are the next steps (including plan monitoring)?	Chapter 7

<sup>3</sup> CLG Plan making manual available at: [www.pas.gov.uk/pas/core/page.do?pagelid=109798](http://www.pas.gov.uk/pas/core/page.do?pagelid=109798)



## 2 WHAT IS THE PLAN SEEKING TO ACHIEVE?

*“an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes”*

(SEA Directive, Annex I(a))

### 2.1 Introduction

2.1.1 This section introduces the contents of the plan and sets out its main objectives.

### 2.2 Plan content

2.2.1 The adopted Joint Core Strategy (JCS) sets out the long-term vision and objectives for the area, including strategic policies for steering and shaping development. It identifies broad locations for new housing and employment growth and changes to transport infrastructure and other supporting community facilities, as well as defining areas where development should be limited. It also helps co-ordinate and deliver other services and related strategies.

2.2.2 The adopted JCS comprises an introduction; a spatial portrait describing the characteristics of the area; a spatial vision for the future of Greater Norwich; a set of specific spatial planning objectives; a set of area-wide policies addressing issues such as housing delivery, the economy and access and transportation; a series of policies for particular places within Greater Norwich; and a section on plan implementation and monitoring

2.2.3 In many areas existing infrastructure is at, or near capacity. The JCS is designed to deliver substantial growth in housing and employment but this is dependent on investment to overcome the deficiency in supporting infrastructure

### 2.3 Plan objectives

2.3.1 The JCS sets out a series of spatial planning objectives accompanied by explanatory text. These are adopted and so remain unaffected by the judgement. It should be noted that these objectives have been used within this sustainability appraisal as the basis of the identification of reasonable alternatives (Chapter 4).

#### **Objective 1 - To minimise the contributors to climate change and address its impact**

Throughout Broadland, Norwich and South Norfolk, high standards of design and sustainable access will be promoted to reduce greenhouse gases and adapt to the impact of climate change. Zero and low carbon developments will be encouraged. Water efficiency will be a priority in both new and existing development. New development will generally be guided away from areas with a high probability of flooding. Where new development in such areas is desirable for reasons of sustainability (e.g. in the city centre), flood mitigation will be required and flood protection will be maintained and enhanced.

#### **Objective 2 - To allocate enough land for housing, and affordable housing, in the most sustainable settlements**

The type, size and tenure, including affordable housing, will meet the needs identified by the Greater Norwich Sub Regional Housing Assessments. Most new homes will be built in the Norwich Policy Area (around 33,000 out of 36,820 between 2008 and 2026). Smaller sustainable settlements will accommodate smaller-scale growth. People will have alternatives to using cars and new housing, employment and services will be planned so they are grouped together wherever possible. The settlement hierarchy defines the towns and villages with a good range of jobs, services and facilities. Appropriate densities will make sure land is used efficiently and community needs will be met.



**Objective 3 - To promote economic growth and diversity and provide a wide range of jobs**

Existing employment sites will be safeguarded and enough land for employment development will be allocated to meet the needs of inward investment, new businesses and existing businesses wishing to expand or relocate. Norwich city centre will continue to exert a powerful economic influence over the wider area. Its growth will be further encouraged, so that the centre remains one of the best in the country for retail and employment. Within the Norwich Policy Area, Thorpe St Andrew, Longwater, Norwich Research Park, Norwich Airport, Rackheath, Hethel and Wymondham will also be the focus of further jobs growth. Supporting economic growth in the market towns and revitalising the rural economy are also priorities. Mixed-use development, live/ work units and diversification schemes will be encouraged to reduce the need for local people to commute long distances to work. As the employment needs of the area are so diverse it is essential to provide jobs for all people in the community.

**Objective 4 - To promote regeneration and reduce deprivation**

There are significant concentrations of deprivation in Norwich, as well as equally serious pockets of deprivation in surrounding towns, villages and rural areas. Growth will be used to bring benefits to local people, especially those in deprived communities, to regenerate communities, local economies, under-used brownfield land and neighbourhoods by creating safe, healthy, prosperous, sustainable and inclusive communities. Development and growth will be used to bring benefits to local people, especially those in deprived communities.

**Objective 5 - To allow people to develop to their full potential by providing educational facilities to support the needs of a growing population**

Within Broadland, Norwich and South Norfolk there is a need to improve, expand and develop new education provision to serve an increasing population and higher educational aspirations. It is essential to provide an environment and the facilities to improve the skills of the workforce to support the developing economy of the area.

**Objective 6 - To make sure people have ready access to services**

Norwich city centre will continue to provide a wide range of services accessible to a very wide area. The diversity, vitality and accessibility of the city centre will be maintained and enhanced. Investment will be encouraged in district and local centres to enhance accessibility, vitality and viability. The surrounding market towns and service centres will continue to play a key service role. Innovative approaches will be taken to support rural service provision. Wherever new homes or jobs are to be developed, existing supporting services must either already be adequate or will be provided at the right stage of a new development. This will ensure existing and future residents and workers will have access to the services they need.

**Objective 7 - To enhance transport provision to meet the needs of existing and future populations while reducing travel need and impact**

The location and design of development will reduce the need to travel especially by private car. Greater use of sustainable modes of transport will be encouraged by better public transport, footways and cycle networks, and by co-location of housing with services, jobs, shops, schools and recreational facilities. A Bus Rapid Transit system and general enhancement to bus infrastructure will be introduced on key routes in the Norwich area. The strategic road network is also essential, especially for the health of the economy. The road network will provide improved access within Broadland, Norwich and South Norfolk in particular through the construction of the Northern Distributor Road. More than 90% of the area is rural and rural isolation can be reduced by encouraging newer communication and information technologies.

**Objective 8 - To positively protect and enhance the individual character and culture of the area**

Promoting culture will help to develop the economy, stimulate further regeneration, increase sustainable tourism and promote community involvement. The role of Norwich as the cultural capital of East Anglia will be enhanced, so local people and visitors have access to a variety of facilities such as theatres, art galleries, museums and buildings of architectural and historic interest. Smaller scale cultural opportunities exist throughout the rest of the area and, in particular, in the market towns. Adequate public open space, sport and recreational facilities, as well as access to the countryside, is needed locally to make sure everyone can take part in community activities. More visitors will be encouraged to the area by protecting the very qualities that make the area attractive. Gateways between the wider Norwich area and the Broads, the Brecks and the coast will be enhanced in a way that does not harm their special character.

**Objective 9 - To protect, manage and enhance the natural, built and historic environment, including key landscapes, natural resources and areas of natural habitat or nature conservation value**

The area is a special place and everyone should be proud of where they live, work, or study. Norwich has a remarkable historic centre with some fine architecture. There are also extensive areas of open space, historic parks and gardens, wildlife sites and wooded ridges in the city. The surrounding market towns and villages are very attractive with each having its own identity. People living in the area have access to open countryside, river valleys, wildlife sites and the special qualities of the Broads and the coast. It is a priority to maintain and improve these special qualities so that everyone can enjoy them. The use of previously developed land will be prioritised to minimise the loss of agricultural land and the countryside. The scale of development we have to accommodate will require the development of some significant greenfield areas, which will affect the existing landscape. Where this is necessary, development must provide environmental gains through green infrastructure, including allotments and community gardens. Biodiversity, geodiversity and locally distinctive landscapes will be protected and enhanced. Linkages between habitats will be promoted, helping to enable adaptation to climate change. Sustainable access to the countryside will be promoted. Efficient use will be made of minerals, energy and water resources, and the production of waste will be minimised.

**Objective 10 - To be a place where people feel safe in their communities**

People will have a stronger sense of belonging and pride in peoples' surroundings. There will be reduced crime and the fear of crime. Better community facilities, better road safety and design of new developments will help to reduce crime.

**Objective 11 - To encourage the development of healthy and active lifestyles**

Within Broadland, Norwich and South Norfolk the accessibility of open space, the countryside, sports and recreational facilities will be improved. People will also be offered the best opportunities to make healthy travel choices as part of their daily lives. By working with NHS Norfolk and Norfolk County Council, medical and social facilities will be properly planned for new developments and will be accessible to all.

**Objective 12 - To involve as many people as possible in new planning policy**

All sections of the community will be actively encouraged to express their own vision of the future through this strategy, further plans and planning applications. There will be a particular focus on involving people who have not previously had a say in planning. As many people as possible should play a part in the ambitious long-term plans for growth across the whole area. This will help make planning more inclusive, and give confidence that the benefits of growth are felt more equally across existing and new communities in and around Norwich.

### 3 WHAT'S THE SCOPE OF THE SA?

#### 3.1 Introduction

3.1.1 This chapter introduces the reader to the scope of the SA, i.e. those issues facing Greater Norwich which should form the focus for the appraisal. Having established these issues, the appraisal itself involves asking to what extent the plan will affect these issues, either positively or negatively.

3.1.2 Developing the scope of the SA has involved a two-step process:

- Firstly, evidence was gathered and reviewed in relation to the 'sustainability context', the 'sustainability baseline' and the 'likely future baseline without the plan'; and
- Secondly, the evidence gathered was analysed and 'key sustainability issues' for Greater Norwich identified.

3.1.3 This scoping process reflects the requirements of the SEA Directive – see Table 3.1.

Table 3.1: Summary of the scoping process

BROAD STEP	QUESTIONS ANSWERED	CORRESPONDING REQUIREMENT OF THE SEA DIRECTIVE MET (THE REPORT MUST INCLUDE...)
1) Evidence gathering and review	What's the sustainability 'context'?	"an outline of the contents, main objectives of the plan and <b>relationship with other relevant plans and programmes</b> " (Annex I(a)) <b>"the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan</b> and the way those objectives and any environmental considerations have been taken into account during its preparation" (Annex I(e))
	What's the sustainability 'baseline'?	<b>"the relevant aspects of the current state of the environment</b> and the likely evolution thereof without implementation of the plan" (Annex I(b)) <b>"the environmental characteristics of areas likely to be significantly affected"</b> (Annex I(c))
	How would the baseline evolve without the plan?	"the relevant aspects of the current state of the environment and <b>the likely evolution thereof without implementation of the plan</b> " (Annex I(b))
2) Identification of key issues	What are the key sustainability issues that should be a particular focus of the appraisal?	<b>"any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance</b> , such as areas designated pursuant to Directives 79/409/EEC [the Birds Directive] and 92/43/EEC [the Habitats Directive]" (Annex I(d)) <sup>4</sup>

#### 3.2 Consultation on the scope

3.2.1 The SEA Directive requires that certain environmental bodies "*shall be consulted when deciding on the scope and level of detail of the information which must be included in the environmental report*". These bodies are nationally designated authorities "*which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes*". In England, the designated bodies are English Heritage, the Environment Agency and Natural England.

3.2.2 As such, these authorities and the wider public were invited to comment on a 'Scoping Report' in 2007, which was subsequently finalised and adopted (see Appendix C). The remainder of this Chapter presents an update to the scope of the SA.

<sup>4</sup> Note, impacts on Special Areas of Conservation (designated under the Habitats Directive) and Special Protection Areas (designated under the Birds Directive) are examined specifically through Habitats Regulations Assessment (HRA).

### 3.3 What's the sustainability 'context'?

*“an outline of the contents, main objectives of the plan or programme and **relationship with other relevant plans and programmes**”*

(SEA Directive Annex I(a))

*“**the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme** and the way those objectives and any environmental considerations have been taken into account during its preparation”*

(SEA Directive Annex I(e))

3.3.1 An important step in establishing the appropriate 'scope' for an SA involves reviewing other policies, plans, strategies and initiatives (PPSIs) with a view to identifying any key objectives or issues included within them that the plan in question may need to consider. A review of the relevant sustainability context is presented below under a series of headings. Note that the review reflects the new National Planning Policy Framework (NPPF) which was published in March 2012 and supersedes a significant amount of previous Government guidance. Appendix M presents further information relating to the 'local' sustainability context.

#### 3.3.2 *Air quality*

- The NPPF states that new and existing developments should be prevented from contributing to, or being put at unacceptable risk from, or being adversely affected by unacceptable levels of air pollution. More specifically, it makes clear that planning policies should be compliant with and contribute towards EU limit values and national objectives for pollutants. This includes taking into account the presence of Air Quality Management Areas (AQMAs) and cumulative impacts on air quality.

#### 3.3.3 *Biodiversity and green infrastructure*

- Commitment to the UN 'Convention on Biological Diversity' led to the preparation of the 1994 UK Biodiversity Action Plan (UK BAP). The UK BAP identifies our most threatened biodiversity assets and includes action plans for the recovery of priority species and habitats.
- The Norfolk BAP contains clear targets and actions which specify what must be done, by whom, and when in order to conserve Norfolk's endangered biodiversity. There are currently plans for 26 of the national priority habitats and 63 of the national priority species identified as being in need of urgent attention.
- More recently, at the European level, a new EU Biodiversity Strategy was adopted in May 2011 in order to deliver on the established Europe-wide target to 'halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020'. The Strategy promotes the need to take an 'ecosystem services' approach to thinking about and conserving biodiversity, i.e. recognising the importance of biodiversity in terms of its role as 'our life insurance, giving us food, fresh water and clean air, shelter and medicine, mitigating natural disasters, pests and diseases and contribut[ing] to regulating the climate'.
- In order to contribute to the Government's commitment to halt the overall decline in biodiversity, the NPPF states that the planning system should look to minimise impacts on biodiversity, with net gains in biodiversity to be provided wherever possible.
- The NPPF calls upon local authorities to set criteria based policies for the protection of internationally, nationally and locally designated sites, giving weight to their importance not just individually but as a part of a wider ecological network.
- To contribute to national and local targets on biodiversity, the NPPF states that planning policies should promote the 'preservation, restoration and re-creation of priority habitats, ecological networks' and the 'protection and recovery of priority species'. Positive planning for 'green infrastructure' is recognised as part of planning for ecological networks.

- The GNDP Green infrastructure Strategy (2007) is a proposed vision for connecting people, places and nature through ‘a multifunctional network of greenspaces and green links, providing an environmental life support system for communities and wildlife’. A number of key principles are listed, including safeguarding, integrating, enhancing and creating green infrastructure.
- Furthermore, it is worthwhile taking note of the initiatives presented within the recent Natural Environment White Paper (Box 3.1) and the latest developments in relation to the Wildlife Trusts’ ‘Living Landscapes’ initiative (Box 3.2).

*Box 3.1: The Natural Environment White Paper*

The Natural Environment White Paper sets out the importance of a healthy, functioning natural environment to sustained economic growth, prospering communities and personal well-being. It aims to facilitate greater local action to protect and improve nature; create and create a green economy in which economic growth and the health of our natural resources sustain each other and markets, business and Government better reflect the value of nature. The White Paper is also focused on strengthening the connections between people and nature to the benefit of both. It includes commitments to:

- Halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks by 2020;
- Establish a new voluntary approach to biodiversity offsetting to be tested in pilot areas;
- Enable partnerships of local authorities, local communities and landowners, the private sector and conservation organisations to establish new Nature Improvement Areas; and
- Work with local authority partnerships to identify and address barriers to using green infrastructure to promote sustainable growth.

The White Paper drew on the findings of the UK National Ecosystem Assessment (NEA), a major project that was able to draw conclusions on the ‘substantial’ benefits that ecosystems provide to society directly and through supporting economic prosperity. The NEA identified development as a key driver of ecosystem loss and biodiversity offsets as a possible means of increasing ‘private sector involvement in conservation and habitat creation’.

The Government has also published *Biodiversity 2020: A strategy for England’s wildlife and ecosystem services*, which builds on the Natural Environment White Paper and sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea and seeks to deliver a real step change in conservation.

*Box 3.2: The Wildlife Trusts’ ‘Living Landscapes’ initiative*

The Wildlife Trusts ‘Living Landscape’ initiative focuses on the conservation of biodiversity over large areas of land where habitats are fragmented. This approach, which is essentially an alternative approach to focusing on conservation of protected areas, is thought to be necessary in order to reverse declines in biodiversity. Within Living Landscapes, a spatial approach to ecological restoration is applied with the aim of:

- Protecting and maximising the value of areas that are already rich in wildlife;
- Expanding, buffering, and creating connections and stepping stones between these areas; and
- Making the wider landscape more permeable to wildlife.

The hope is that this restoration will both provide a healthy environment in which wildlife can thrive and enhance those natural processes that benefit people. A partnership approach is called for, with central and local government, agencies, the private sector and voluntary bodies required to act together to ensure ecological restoration, including through cross-boundary co-operation.



### 3.3.4 *Climate change and flood risk*

- The Climate Change Act 2008 sets targets for greenhouse gas (GHG) emission reductions through action in the UK of at least 80% by 2050, and reductions in CO<sub>2</sub> emissions of at least 26% by 2020, against a 1990 baseline.
- The UK National Strategy for Climate Change and Energy: Transition to a Low Carbon Society sets out plans to deliver emission cuts of 18% on 2008 levels by 2020 (and over a one third reduction on 1990 levels).
- The NPPF identifies as 'core planning principles' the need to 'support the transition to a low carbon future in a changing climate', including accounting for flood risk, reusing resources, converting existing buildings, and encouraging the use of renewable energy. A key role for planning in securing radical reductions in GHG emissions is envisioned, with specific reference made to meeting the targets set out in the Climate Change Act 2008.
- In terms of adaptation, the NPPF requires Local Plans to take account of the effects of climate change in the long term. New developments should be planned so that they avoid increased vulnerability to the impacts of climate change. Where new development is at risk to such impacts, this should be managed through adaptation measures.
- Tomorrows Norfolk, Today's Challenges (2008) details a climate change strategy for the area. The strategy sets out a number of key priorities for local authorities, with a particular requirement for reductions in emissions from transport, business, energy, development and existing housing. It makes clear the need for a robust approach to managing the risks of climate change, in particular in reference to flooding, water supplies, emergency planning and growth.
- The GNDP Sustainable Energy Study (2009) presents key recommendations for progressing low carbon development, including energy and heat mapping, to indicate the low carbon energy systems that developments of particular scales, density and mix, are expected to incorporate.
- The NPPF calls for the diversion of development away from areas of highest flood risk, or where development is necessary, 'making it safe without increasing flood risk elsewhere'. Local Plans in turn should be 'supported by Strategic Flood Risk Assessment', and policies should manage flood risk from all sources, taking account of the advice of the Environment Agency and other relevant bodies. A sequential, risk-based approach should be taken to the location of development, taking into account the effects of climate change.
- The Broadland Rivers Catchment Flood Management Plan (2009) sets out the Environment Agencies preferred plan for sustainable flood risk management over the next 50 to 100 years and should be used to inform planning and decision making by local authorities. The plan recognises that urbanisation and climate change up to 2100 is likely to have an impact on flood risk in the area.
- The Coalition Government has continued to support the previous Government's target that all new homes should be zero carbon from 2016. Step changes in Building Regulations Part L are leading to this, and authorities are encouraged to use the Code for Sustainable Homes (CSH) (CLG 2006) to increase energy efficiency standards in new development.
- Further information on climate change mitigation and adaptation can be found in recent guidance from the Committee on Climate Change, summarised below in Box 3.3.

*Box 3.3: 'How local authorities can reduce emissions and manage climate risk'*

Guidance from the Committee on Climate Change highlights the important role that local authorities can play in delivering emission reductions and sets out benchmark ambitions for them. Planning functions are described as being a 'key lever in reducing emissions and adapting localities to a changing climate', with it considered particularly important that local authorities use these to:

- Enforce energy efficiency standards in new buildings and extensions;
- Reduce transport emissions by concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport;
- Work with developers to make renewable energy projects acceptable to local communities;
- Plan for infrastructure such as low-carbon district heating networks, green infrastructure and sustainable drainage systems; and
- Avoid increasing the area's risk to climate change impacts by locating new development in areas of lowest flood risk.

3.3.5 *Community and wellbeing*

- The Equality Act and other equality legislation introduce specific measures to protect certain groups in society from discrimination and hence promote equality of opportunity.
- Fair Society, Healthy Lives ('The Marmot Review') lists as a key recommendation the need to 'fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality'.
- The social role of the planning system is defined in the NPPF 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'. It should aim to achieve places that promote social interaction, and which are safe and accessible.
- The NPPF advises that planning policies should promote the retention and development of local services and community facilities in villages, such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship. High quality open spaces should be protected or their loss mitigated, unless a lack of need is established.
- Specific protection and promotion of town centres is also encouraged in the NPPF, with it stating that local planning authorities should 'define the extent of town centres', set 'policies that make clear which uses will be permitted in such locations', and 'promote competitive town centres that provide customer choice and a diverse retail offer and which reflect the individuality of town centres'.
- Norfolk Ambition is a sustainable community strategy for the Norfolk area developed by the Norfolk County Strategic Partnership. It includes the vision that by 2023 Norfolk will be a 'place that inspires individuals and businesses to create, thrive and achieve', with 'communities that prosper, welcome and support', and which is on the 'frontline in tackling climatic change and environmental sustainability'.
- The Gypsies and Travellers Strategy for Norfolk (2005-2008) sets out a vision of a Norfolk where there is equality of opportunity and good access to services for gypsies and travellers. In meeting this vision, relevant objectives include identifying where new services are required and how these will be provided and work with the travelling and settled community to promote better understanding and mutual respect.

3.3.6 *Economy and employment*

- The NPPF highlights the contribution the planning system can make 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'.



- A commitment to securing economic growth is set out in the NPPF. This is in order to 'create jobs and prosperity', to build on 'the country's inherent strengths' and to meet the 'twin challenges of global competition and of a low carbon future'. This should include supporting existing, new and emerging business sectors, including positively planning for 'clusters or networks of knowledge driven, creative or high technology industries'.
- The NPPF states that local plans should 'support the sustainable growth and expansion of all types of business and enterprise in rural areas' and 'promote the development and diversification of agricultural and other land-based rural businesses'.
- Leading the way, New Anglia Local Enterprise Partnership's Green Economy Pathfinder manifesto (2012–15) sets as an overall ambition sustainable growth, skills development and employment in the region. Three focus areas are identified where the region is well suited to lead the UK's transition to a green economy, with these being the low carbon economy, an abundance of natural capital and the areas strong social capital.
- The Greater Norwich Economic Strategy (2009-14) defines priorities for economic development in the area. Its vision is that by 2014: 'Greater Norwich will be recognised as one of England's major city regions with a rapidly growing diverse and sustainable economy providing all its residents with opportunities and a great quality of life'. Objective include increasing opportunities for enterprise, building a more skilled labour force, business infrastructure, and a raised profile for the region to encourage investment.
- The most recent release of the East of England Forecasting Model confirms the level of forecast jobs growth planned for in the adopted JCS.
- Box 3.4 provides a summary of the most recent Government guidance on achieving locally led economic growth.

*Box 3.4: The Local Growth White Paper*

Government interventions should support investment that will have a long term impact on growth, working with markets rather than seeking to create artificial and unsustainable growth. In some cases this means focusing investment at areas with long term growth challenges, so that these areas can undergo transition to an economy that responds to a local demand. Places that are currently successful may also wish to prioritise activity to maximise further growth by removing barriers, such as infrastructure constraints. However, the White paper also emphasises that: *This does not mean that every place will grow at the same rate or that everywhere will, or will want to, become an economic powerhouse. Long term economic trends make differences in economic performance inevitable and these can and do change over time.*

Specific examples of areas where it makes sense for Government intervention to tackle market failures include: investment in infrastructure; tackling barriers such as transport congestion and poor connections; other support to areas facing long term growth challenges where this can help them manage their transition to growth industries; and strategic intervention where it can stimulate private sector investment in new green technology in strategic locations.

Finally, the White Paper identifies that economic policy should be judged on the degree to which it delivers strong, sustainable and balanced growth of income and employment over the long-term. More specifically, growth should be: broad-based industrially and geographically, ensuring everyone has access to the opportunities that growth brings (including future generations), whilst also focused on businesses that compete with the best internationally.

3.3.7 *Historic environment and landscape*

- The NPPF states that local planning 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. These assets should be recognised as being an 'irreplaceable resource' that should be conserved in a 'manner appropriate to their significance'.

- In relation to the historic environment, the NPPF calls upon local planning authorities to take account of the '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'.
- According to the NPPF, considerations of the impact of a proposed development on a designated heritage asset should place great weight on the assets conservation. In addition, the effect of proposed developments on the significance of non-designated heritage assets should be taken into account when determining applications.
- The UK Government is a signatory to the European Landscape Convention. This aims to encourage public authorities within member states to 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.
- The NPPF states that the planning system should protect and enhance valued landscapes. This should include setting criteria based policies against which proposals for development that affect landscape areas will be judged.
- In particular, the NPPF notes that 'great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty' due to their high status of protection in 'relation to landscape and scenic beauty'.
- The Broadland District Draft Landscape Character Assessment SPD (2008) provides an up-to date and integrated assessment of the landscape character of the district. Overall, it identifies that the 'diversity and local distinctiveness of the District's landscapes are considered to be a major environmental asset' which make a 'significant contribution to the quality of life', and so calls on these features to be protected through planning and land management policy.
- South Norfolk Council have produced a landscape character assessment to describe the characteristics of the landscape in different parts of the district and act as a guide to the type of development which can appropriately be accommodated. More recently, the Council has prepared a draft place making guide which it proposes to adopt as SPD, expanding upon policies in the adopted JCS. Its purpose is to promote and secure good quality design in new development within the District and guide the determination of planning applications.

#### *Housing*

- The NPPF states that in order to 'boost significantly the supply of housing' local planning authorities should meet the 'full, objectively assessed need for market and affordable housing' in their area, so far as this is consistent with the policies set out in the NPPF. A 'supply of specific deliverable sites' should be identified, sufficient to provide five years worth of housing against requirements, with an additional buffers set to ensure 'choice and competition in the market'.
- Local planning authorities are also called upon by the NPPF to 'widen opportunities for homeownership' and to 'create sustainable, inclusive and mixed communities'. This includes ensuring the provision of affordable housing onsite or externally where robustly justified. Plans for housing mix should be based upon 'current and future demographic trends, market trends and the needs of different groups in the community'.
- The NPPF states that empty housing and buildings should also be identified and brought back into residential use where appropriate. Larger developments are suggested as sometimes being the best means of achieving a supply of new homes, with these to be developed in accordance with the 'principles of Garden Cities'.
- The Greater Norwich Housing Strategy (2008-2011) looks to address the 'substantial imbalances' in the areas housing market. It sets out a number of strategic aims, including: maximising opportunities for delivering affordable homes; achieving decent, healthy and

environmentally sustainable homes across all tenures; and providing choice and fair access to services.

- The draft Broadland Housing Strategy (2011-2014) looks to enable every household to 'have available to them, a home that is affordable, of good quality, suited to their needs in a good environment and in so far as possible at a tenure of their choice'. To achieve this it sets out priorities, including: raising the quality and sustainability of existing homes, services and neighbourhoods; creating a more balanced mix and quality of a housing that is affordable; and creating sustainable and thriving communities and environments.
- There has been a recent release of housing and migration data by the office of national statistics, though the corresponding household formation data, necessary to understand the implications for housing, has not yet been released.
- Of further interest is the following summary of national progress on housing produced by the Chartered Institute of Housing, The National Federation of Housing, and Shelter (Box 3.5).

*Box 3.5: 'The Housing Report'<sup>5</sup>*

This national report collates the official figures available on housing in order to establish whether the Government's approach to housing is succeeding. It analyses the Government's performance under a number of main headings, the following of which are of particular relevance:

- *Housing Supply*: A small increase of new build is recorded, but this is from a historically low base. The number of completions in 2011 was 38% below the 2007 peak and there has been a fall in overall starts
- *Overcrowding*: This situation is worsening, and current measures to take under-occupation may not necessarily resolve the problem.
- *Homelessness*: There has been a large increase in homeless acceptances and rough sleepers, with this problem potentially exacerbated by further cuts to Housing benefit during 2013
- *Empty Homes*: Despite 720,000 homes currently being classed as empty, the situation seems to be an improving one. This is particularly the case with long-term empty homes.
- *Home Ownership*: House prices are relatively steady, sales are up, and affordability is increasing. However, homeownership rates are falling and there is a decline in low cost ownership sales. Home ownership remains out of reach for most people.

A challenge identified for the Government is to produce a step change in housing in order to meet the nations needs and aspirations, especially given that: *'Many of the external pressures on the housing market, ranging from a growing and ageing population to falling incomes, are likely to intensify over the coming years'*

3.3.8 *Land and waste*

- There is no longer a national requirement to build at a minimum density, but there is a need to ensure that effective and efficient use of available land is made when permitting residential development
- According to the NPPF, planning policies and decisions should look to 'encourage the effective use of land' through the reuse of land which has been previously developed, 'provided that this is not of high environmental value'. The benefits of best and most versatile agricultural land should also be taken into account.

<sup>5</sup> The Housing Report: Edition 2 (2012). Chartered Institute of Housing, The National House Builders Federation and Shelter [Online] available @ [http://www.housing.org.uk/publications/find\\_a\\_publication/general/housing\\_report\\_edition\\_2\\_may.aspx](http://www.housing.org.uk/publications/find_a_publication/general/housing_report_edition_2_may.aspx) (accessed 06/12)

- The 1990 Environmental Protection Act requires local authorities to secure the appropriate remediation of contaminated land and to maintain a register of contaminated land.
- Whilst the NPPF does not contain specific waste policies, local authorities should have regard to the frameworks policies so far as relevant. The environmental role set out for planning includes a reference to minimising waste, whilst local planning authorities should set out strategic policies to deliver waste management infrastructure.
- The Joint Municipal Waste Management Strategy provides a framework for the management of waste in Norfolk until 2020. Relevant underlying objectives of this strategy include: promoting waste reduction and reuse; increasing recycling and composting; and delivering efficient, effective and affordable waste management services using practical solutions which are socially, economically, and environmentally acceptable.

### 3.3.9 *Transport*

- In terms of transport policies, the NPPF notes that these will have an important role in 'contributing to wider sustainability and health objectives'. It calls for the transport system to be balanced 'in favour of sustainable transport', with developments to be located and designed to facilitate these modes of travel.
- The NPPF states that encouragement to be given to those solutions that 'support reductions in greenhouse gas emissions and reduce congestion', whilst strategies should be developed for the provision of 'viable infrastructure necessary to support sustainable development'.
- In order to minimise journey lengths for employment, shopping, leisure and other activities, the NPPF calls for planning policies that aim for 'a balance of land uses'. Wherever practical, key facilities should be located within walking distance of most properties.
- Norfolk's 3rd Local Transport Plan, Connecting Norfolk (2011) sets out the strategy and policy framework for the areas transport up until 2026. Its vision is for a transport system provides 'a range of low carbon options' that meet transport needs and 'attracts and retains business investment'. There are six strategic aims that underpin this vision: maintaining and managing the highway network; delivering sustainable growth; enhancing strategic connections; reducing emissions; improving road safety; and improving accessibility.
- The Norwich Area Transportation Strategy (2006) has been designed to help deliver the growth that will occur in the Norwich Area and to address problems such as congestion. The strategy promotes travel choice and carries forward a previous policy of accommodating the growth in number of trips by means other than the car. It will seek to achieve this through the promotion and improvements of other modes, including public transport.
- In April, 2010, Norfolk County Council adopted the Norwich Area Transportation Strategy Implementation Plan. This is a high level strategy identifying key areas of investment in the transport network for the area. These include the northern distributor road, bus rapid transit corridors, other public transport priorities and improvements to facilitate walking and cycling.

### 3.3.10 *Water*

- The EU Water Framework Directive (WFD) requires all inland and coastal waters to achieve at least 'good status' by 2015 or, where this is not possible, by 2021 or 2027. The Environment Agency has prepared draft River Basin Management Plans that show how these requirements will be met by 2025.
- The Environment Agency highlights the importance of integrating development planning and water planning, including the need to adopt stringent water efficiency policies; take account of the findings of Water Cycle Studies; set policy relating to SuDS, contamination and ecological enhancement; and identify suitable development for groundwater sensitive areas.
- Future Water sets out the Government's vision the water sector by 2030. The Strategy requires planning authorities to work closely with water companies and the Environment Agency on timing and numbers of new households in areas likely to see the greatest growth.

- The Environment Agency have developed Catchment Abstraction Management Strategies which consider how much water can be abstracted from watercourses without damaging the environment within a catchment.
- The Environment Agency has conducted a catchment wide review of consents for the abstraction of water. This requires a significant, but staged reduction in the amount of water abstracted at Costessey, the principal water resource serving the Norwich area. Anglian Water have confirmed they have sufficient resources for the short term to allow them immediately to cap abstraction at historic rates. For the longer term, including the period of the JCS, additional resources will be needed. There is an agreed process in place involving Anglian Water, the Environment Agency and Natural England to identify the preferred solution. The three bodies are working together on this process to support the provision of additional resources.
- The Broadland River CAMs (2006) sets out a strategy for the sustainable management of water resources in the area. It provides guidance on the management of water to ensure it is available for abstraction, whilst also protecting the needs of the natural environment.
- 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.

### 3.4 What's the sustainability 'baseline'?

*“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”*

(SEA Directive Annex I(b))

*“the environmental characteristics of areas likely to be significantly affected”*

(SEA Directive Annex I(c))

#### Introduction

- 3.4.1 Another important step when seeking to establish the appropriate 'scope' of an SA involves reviewing the situation now ('baseline') for a range of sustainability issues. Doing so helps to enable identification of those key sustainability issues that should be a particular focus of the appraisal, and also helps to provide 'benchmarks' for the appraisal of significant effects.
- 3.4.2 The SA Scoping Report (2007) sets out a clear picture of baseline conditions in the Greater Norwich sub-region for a range of sustainability issues. This Chapter presents a summary, updated to reflect current conditions where relevant. Appendix N presents a more detailed exploration of the current sustainability baseline.

#### Summary and update of the key findings of the 2009 baseline review

##### 3.4.3 *Air quality*

- The number of Air Quality Management Areas (AQMA) JCS area has remained steady over the period 2007-2011, with four recorded each year. Since 2009, all of these have been situated in Norwich, with Broadland district having lost its AQMA during the same year.
- Figures for the concentration of selected air pollutants ( $\mu\text{g}/\text{m}^3$ ) are available for Broadland and Norwich districts from 2008-2011. These show that annual average concentrations on Nitrogen Dioxide ( $\text{NO}_2$ ) and annual average Particulate Matter levels (PM10) have shown a small decline over the period.

##### 3.4.4 *Biodiversity and green infrastructure*

- The percentage of SSSIs in the JCS area in 'favourable' or 'unfavourable recovering' condition has shown a large overall increase in recent years. In 2007/08, Norwich district had 80% in such condition, Broadland 46% and South Norfolk 34%. In the most recent 2010/11 data this stood at 100% for Norwich; 86% in South Norfolk and 84% in Broadland. This is against national targets of 95% of SSSIs reaching favourable or recovering standards.
- Figures from Norfolk Wildlife Trust on the net change in County Wildlife Sites in 'positive conservation management' show that over the period 2007-2011 there has been a small increase in such sites, with Broadland District rising from 53% to 59% and Norwich rising from 74% to 81%. Data is not available for South Norfolk.
- The Greater Norwich Green Infrastructure Delivery Plan (2009) builds upon the findings of the Green Infrastructure Study and identifies a number of Green Infrastructure Priority Area's in the GNDP area. These are: Norwich to the Broads (Norwich to Acle and Norwich Wroxham); Long Stratton to Norwich; Five Rivers (Tas/Tiffey/Yare/Tud/Wensum); Wymondham to Norwich (Wymondham-Hethersett-Cringleford); and 'Water City' (Yare and Wensum).

##### 3.4.5 *Climate change and flood risk*

- The total  $\text{CO}_2$  emissions per capita (tonnes carbon equivalent) has shown a small decline across the JCS area between 2007 and 2010 (data for 2011 is not yet available). The largest decline has been seen in Norwich, falling from 6.2 tonnes to 5.2 tonnes over the period.



South Norfolk has seen a decline from 8.3 tonnes to 7.5 tonnes; Broadland from 6.2 tonnes to 5.7 tonnes.

- The Sustainable Energy Study (2008) assessed the capacity for supplying new development with low carbon energy. The total technical potential for renewable energy within area covered by the three districts has been estimated to be 7.7 Million MWh or 129% of the area's current energy consumption. In 2006, the commercial / industrial sector accounted for 52% of total CO<sub>2</sub> emissions in the area, with residential dwelling accounting for 48%.
- The number of developments granted planning permission contrary to the advice of the Environmental Agency of flood defence grounds has fallen from four in 2007/08 down to zero in 2009/10. Data is not yet available for 2010/11.
- No dwellings have been permitted in high risk flood areas (Environment Agency Flood Zones 2 & 3) in Broadland or South Norfolk during the period 2007-2011. There is no data available for Norwich district.
- The GNDP SFRA (2008) examined strategic flood risk across the three authorities covered by the JCS. Flooding from the Broads river systems caused by tidal surges is the most important cause of flooding in the Broadland District Council area, and there may be the potential for significant damage and loss. Flooding from the Broads river systems is also the most important cause of flooding in the South Norfolk area, and the hazard level is also described as low to moderate. In Norwich the main threat is from extreme rainfall events. However, unless there are extreme meteorological conditions, risk is likely to be relatively low.
- The Water Cycle Study (2008) notes that flood risk is most relevant on some brownfield sites in Norwich and in the area in the vicinity of the Wensum and Tud to the West of Norwich, where development is proposed at Easton / Costessey. There is also groundwater vulnerability issues associated with the growth triangle to the north east of Norwich (in the remitted part of the JCS), as well as Costessey and Easton, and a degree of groundwater vulnerability associated with Long Stratton and Wymondham.
- The Surface Water Management Plans (SWMP) take a comprehensive look at the causes of surface water flooding and its consequences, using historical flood records and detailed models of potential future floods. SWMPs are used to help identify areas that are at risk from surface water flooding during heavy rainfall events: these areas will be prioritised for further detailed study and work. Surface water management plans are in preparation by Norfolk County Council, as the lead local flood authority, for a number of areas including the Norwich urban area. The Norwich SWMP highlights that further work will need to be undertaken in the Drayton, Sewell/Catton Grove, and Nelson / Town Close areas.

#### 3.4.6 *Community and wellbeing*

- The levels of income deprivation affecting children (% of children in income deprived families, average Lower Layer Super Output Area (LSOA) score) in the JCS area has shown no change over the period 2007 to 2011, remaining at 16.7%. In 2010/11 levels of affected children were highest in Norwich district (29.2%), with Broadland (10.2%) and South Norfolk (11%) scoring significantly lower.
- Income deprivation (average LSOA score from the Index of Multiple Deprivation) in the three councils' area shows a similar pattern, with over all levels having not moved from 12% between 2007 and 2011. Norwich scores the highest of the districts, with 19% in 2010/11. South Norfolk (9%) and Broadland (8%) score far lower.
- The Index of Multiple Deprivation (average LSOA score) reveals that there has been a slight decline in overall deprivation in the three councils' area, down from 15.8% in 2007/8 to 15.8% by 2010/11. Levels have fallen slightly in Norwich, but remain the highest overall in 2010/11 at 26%. Broadland and South Norfolk have both seen a small increase over the period.



- The percentage of the working age population receiving Employment and Support Allowance and incapacity benefit in the three councils' area has remained steady, having fallen just 0.1% to 5.5% between 2007 and 2009. Highest levels in 2010/11 were found in Norwich (6.9%), the lowest in South Norfolk (4.5%).
- The life expectancy of residents (at birth) has remained relatively steady for both men and women across the three districts in the three councils' area between 2007 and 2011. Life expectancy for women shows no spatial variation. In Norwich the male life expectancy in 2010/11 (77.8 years) remained below that of both Broadland (80.3 years) and South Norfolk (80.7 years).
- The level of workforce qualification (percentage of working age population with qualifications at NVQ level 4 or above) has shown a small increase in the three councils' area, rising from 28.2% in 2007/08 to 32.6% in 2010/11. The highest levels of qualification during 2010/22 were found in Norwich (39.1%), with South Norfolk (30.6%) and Broadland 30.6%) scoring lower.
- School leaver qualification levels (percentage of school leavers with 5 or more GCSEs at A\* to C grades) has also seen a small rise, from 63.5% to 72.3% over the 2007-2011 period. In this case levels were highest in Broadland (78.2%) and South Norfolk (75.3%). Norwich performed poorly in comparison, with only 58%.
- Levels of crime committed in the JCS area have shown a decline over the period 2007-11 for certain key offences. These include domestic burglaries, down from 1,145 in 2007/8 to 940 in 2010/11; violent offences against the person, down from 4,484 to 4,159; and offences against a vehicle, down from 2,858 to 1,651. Both Broadland and South Norfolk have seen a slight increase in burglaries over the period. Overall levels of crime across the three offences detailed remains the highest in Norwich.
- The percentage of the economically active population who are unemployed across the area covered by the three districts has shown a sharp increase, rising from 2.7% in 2007/8 to 6.7%. In Broadland there has been a small recent recovery. Norwich has also seen a slight recent recovery, but with levels still far higher (7.1%) in 2010/11 than in 2007/8 (2.3%). South Norfolk meanwhile has seen a steep increase recently, up from 5% in 2009/10 to 8.6% the following year, compared to a level of just 2.5% in 2007/8.
- The percentage of people claiming Job Seekers Allowance (JSA) for over one year has shown a rise across the whole JCS area, from 10.8% in 2007/9, peaking in 2009/10 at 18.6%, although this has fallen away slightly, standing at 16.1% in 2010/11. Numbers of those claiming JSA for over 2 years have also risen across the GNDP during 2007-11, up from 3.8% at the start of the period to 5.6% by 2010/11. Figures for the individual districts show a similar pattern, with claimant levels falling from 2007/08-2008/9, then rising again steadily afterwards.
- In terms of the age profile of those receiving unemployment benefit (percentage of population in receipt of JSA), there has been a steep increase over the three councils' area in the period 2007-10 in the percentage of claimants aged 16-24 years, rising from 2.8% to 4.5%. This is in comparison to a much lower increase of 0.5% to 1.6% over the same period for those aged over 50. An increase of 1.3% can also be seen in the 25-29 age group, although this is from a lower base of 1.8% in 2007/08, compared to 2.8% amongst the younger age group in the same year.
- The Greater Norwich Retail and Town Centres Study (2007) describes Norwich City Centre as having a strong regional role and a relatively strong and attractive retail offer. There is a need to maintain this competitive position by continued investment in the retail centre. In terms of Market towns in the rural areas in Broadland, it is deemed essential that these centres maintain and enhance their retail offer. In South Norfolk, Diss, Wymondham and Harleston are all attractive well maintained town centres and are on a larger scale than their Broadland equivalents.

### 3.4.7 *Economy and employment*

- Across the JCS area there has been a decline in the growth of new enterprises (percentage change in total number of active enterprises). Enterprise growth stood at 2.8% in 2007/08, but fell away to 0.2% the following year, recovering only slightly at 0.6% in 2009/10. Broadland district has seen the highest recent level of growth, with 1.2% in 2009/10, compared to 0.3% in Norwich and 0.2% in South Norfolk. Figures are not yet available for 2010/11.
- The number of small businesses in the JCS area increased sharply between 2007/8 and 2008/9, rising from 3,055 to 11,985. However, this has been followed by a steady decrease, reaching 11,610 in 2010/11. This pattern which can be seen across all of the districts, with South Norfolk achieving the highest level in 2010/11 with 4,510 small businesses.

### 3.4.8 *Historic environment and landscape*

- The number of Listed Buildings at risk has fallen in all districts over the period 2007-2011. The largest decrease was recorded in Broadland district, with a fall from 51 to 31, whilst Norwich saw a decline of just one, down to 29. In South Norfolk there has been a steady decline, from 54 in 2007/8, down to 47 in 2010/11.
- The number of Scheduled Ancient Monuments (SAMs) on the buildings at risk register has seen an increase in Broadland, from zero at the beginning of the 2007-11 period, up to two by the end. Norwich has seen a rise from four to 5 over the same time frame. Data is only available for South Norfolk for 2010/1, with 3 SAMs recorded.
- Between 2007 and 2011 the number of Tree Preservation Orders in Broadland District rose from 20 to 95 in Broadland district. Figures are not available for the other districts in the GNDP.
- The GNDP Historic Characterisation and Sensitivity Assessment (2009) is an evidence-based analysis of historic character which examined the sensitivity of each of the major growth locations. The area to the east of Long-Stratton is identified as sensitive as a result of containing a high number of features of typical 'Ancient Countryside'. Other areas of high sensitivity include Wymondham Deer Park, Great Melton Park and Colney Park.
- The South Norfolk Landscape Assessment is framework study of the entire district. It identified seven generic landscape types, reflecting the subtly varied landscape of the district. It describes South Norfolk as a landscape of arable farmland intersected by river valleys. The area remains a highly rural, peaceful landscape.

### 3.4.9 *Housing*

- In terms of the percentage of housing stock that is affordable, there has been no significant change across the three districts during the period 2007-11. According to the most recent 2010/11 figures levels are highest in Norwich at 25%, with South Norfolk (13%) and Broadland (9%) achieving far lower levels.
- Figures for the total number of affordable housing units completed in the previous year show a decline across all area, with South Norfolk, which managed 366 completions in 2008/9, having completed only 109 in 2010/11. The lowest levels of completion are to be found in Broadland, which peaked at 83 in 2008/09, with a low of 31 recorded in 2010/11.
- Across all of the three districts the percentage of past year's dwelling that were affordable peaked in 2008/09, with Norwich achieving a level of 45%, South Norfolk 40% and Broadland 27%. This is in comparison with 2010/11 figures of 30% in Norwich, 19% in Broadland and 16% in South Norfolk, illustrating a decline across all districts in recent years.
- In Norwich total dwellings with category 1 hazards have seen a steady decline from 4,384 in 2007/8 to 4,148 in 2010/11. In Broadland, figures are available for the 2009-2011 period only, and show an increase from 4,000 dwellings to 4,140. South Norfolk had a total of 4,600 dwellings in 2005, but more recent figures are not yet available.

- The amount of unfit housing (percentage of overall housing stock not meeting 'Decent Homes Standard') has steadily declined in Norwich, down from 7.4% in 2007/8 to 6.5% in 2010/11. Recent data is not available for Broadland, where levels stood at 14% in 2006 and South Norfolk, where 31.2% were unfit.
- The Greater Norwich Housing Market Assessment Update (2010) notes that all three district councils have seen an increase in housing requirement and housing need in absolute terms. Prior to the 2010 update the number of dwellings completed each year exceeded the requirement target set in the housing market assessment only once. The overall 5 year housing requirement across the sub-region increased by 9.97% from 9,691 to 10,659, whilst the overall housing need as a percentage of housing requirement stood at 43.4% across the area at the time of the update.
- Empty homes account for less than 1% of the total number of homes in the GNDP area. In October 2011, 1,326 dwellings were empty<sup>6</sup>.

#### 3.4.10

##### *Land and waste*

- The percentage of dwellings built on previously developed land varies considerably between the districts. In South Norfolk the percentage has remained low from 2007-2011, with 24% in 2007/8 representing a low point, and a peak a year later at 38%. Broadland district over the same period has achieved relatively high levels, although in 2010/11 this fell away to only 45%. Norwich has achieved over 90% across the four years, peaking at 99% in 2009/10.
- The density of new dwellings achieved per hectare also shows strong variation between the districts. In Norwich, the densities achieved have been consistently high between 2007 and 2011, with each year over 80% built at a high density (more than 50 per hectare). In South Norfolk, there has been a decline in the number of dwellings built at moderate density (30-50 per hectare), with a subsequent rise in the number constructed at a low density (less than 30 per hectare), whilst completions at a high density have remained steadily low. In Broadland, data is only available for 2010 and 2011, showing a fairly constant proportion in the moderate density range, but a rising proportion in the low density range.
- The amount of waste arisings (kg per capita, per year) has shown little percentage change in Broadland, which also produces the most waste per capita amongst the three districts, at 436kg per capita in 2011. The lowest per capita producer, South Norfolk, has seen arisings fall from 336kg per capita per year down to 200kg between 2007 and 2010, including a fall of 33% between 2008 and 2010. Norwich has also seen a steady, albeit more modest decline in per capita arisings over the same period. These stood at 379kg in 2007/08, falling to 316kg by 2010/11.
- The percentage of household waste being recycled or composed across the three districts has also been monitored between 2007 and 2011. Recycling rates have fallen slightly in Broadland and South Norfolk. In Norwich they have shown a small rise, although from a lower base. All three council areas currently stand at 28%. Composting rates have risen across all districts. Broadland district has the largest overall rate, having risen from 14% to 22% over the period, whilst Norwich has shown the largest percentage rise, from 1% composted in 2007/9 to 10% in 2010/11. In South Norfolk, percentages have risen from 7% to 11% in the same period.

<sup>6</sup> Source: CLG:

<http://www.communities.gov.uk/housing/housingresearch/housingstatistics/housingstatisticsby/stockincludingvacants/livetables/>

### 3.4.11 *Transport*

- The 2001 Census provides data on the means of transport used by those residents who travel to work. Across the three councils' a high proportion use a private motor vehicle (64%), with 17% choosing to go by foot or to cycle, 8% using public transport, and 9% working at or mainly from home. Norwich district showed the lowest amount of travel by private motor vehicle (50%) and the highest number of cyclists and walkers (32%).
- According to 2001 Census data, of those who travel to their place of employment, 42.4% of those in the area covered by the three districts travelled a distance of no more than 5km. 10.5% travelled more than 20km. Norwich had the highest proportion travelling a distance under 5km (67%), with South Norfolk scoring the lowest at 25.6%.
- Regular measurements focus mainly on the urban area. Between 2007 and 2011, the percentage of journeys crossing the inner ring road cordon on foot or cycle has remained between 34 and 36%. The number of cars crossing the same cordon has fallen year on year over the same period.
- A significant recent event is the confirmation by the Department for Transport that the funding bid for the NDR and Postwick Hub was successful and that Programme Entry was re-confirmed. The DfT have provided a funding allocation of £86.5m which includes £19m towards delivery of the Postwick Hub junction. The DfT project assessment is published on their website. It includes a number of positive statements in relation to the project, which still retains a cost benefit ratio of 5.4, representing very high value for money.

### 3.4.12 *Water*

- In 2009/10 Broadland rivers were tested by the Environment Agency. Only 27% of the river length scored 'good' for biological quality, with 29% scoring 'good' for chemical quality. This against national standards targeting 95% achieving a 'good' level.
- Daily domestic water use (per capita consumption) has remained relatively steady between 2007 and 2011 across the whole of the area covered by the three districts. It was lowest in 2007/08 at 141 litres of water, per person, per day and was highest during 2008/09 at 148.1 litres per person, per day. Data is not available at the district level.
- The number of development permission that have been granted contrary to Environment Agency advice on water quality grounds has been low over the 2007 to 2011 period, with just two incidence, both in Norwich district.
- The Water Cycle Study (2008) identified that water resources are not considered to be a the major constraint on development within the GNDP JCS area. Additional resources will need to be made available Anglian Water Services have stated that there are sufficient water resources to meet the growth demands until 2031, taking account of the Environment Agency's Review of Consents, but a process to resolve this is in place, and being followed by Anglian Water, the Environment Agency and Natural England. In terms of water quality, phosphate and nitrate loading into the river systems provides the biggest impact to environmental designated sites within the Study Area. The area in the vicinity of Costessey and Easton falls within a Source Protection Zone. In terms of wastewater, the Water Cycle Study states that Sewage Treatment Works within the Study Area range from having no spare capacity to considerable capacity, with Whitlingham STW having the most opportunity to receive additional flows.
- The Water Cycle Study highlights the potential for some water resource and water quality issues to worsen in the future as climate change leads to more frequent drought conditions.

### 3.5 How would the sustainability baseline evolve without implementation of the plan?

*“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”*

(SEA Directive Annex I(b))

- 3.5.1 Just as it is important for the scope of SA to be informed by an understanding of current baseline conditions, it is also important to ensure that thought is given to how baseline conditions might ‘evolve’ in the future under the ‘no plan’ / ‘business as usual’ scenario
- 3.5.2 The following are examples of broad sustainability issues that are likely to be faced in the future (and hence should be considered as part of planning now):
- An aging population will create a need for additional healthcare provision and for different types of housing.
  - A rising population may increase demand for jobs, housing, and services, and could place additional pressure on transport infrastructure.
  - Development will put pressure on the sub-region’s green and historic spaces.
  - Climatic change may have wide ranging and unpredictable impacts, socially, economically and environmentally.
  - Biodiversity loss as a result of numerous drivers, including the impacts of development, may lead to a decline in ecosystem services.
  - A failure to fully recover from the current recession may make economic growth difficult, leading to related problems, such as unemployment, deprivation and crime.
- 3.5.3 The following points reflect the likely influence of the adopted parts of the Joint Core Strategy (JCS) for Broadland, Norwich and South Norfolk looking into the future, assuming that the adopted JCS is fully implemented:
- Developments in the GNDP will reach increasingly high standards of design. All new developments will have been designed and located with local distinctiveness, resource efficiency and reductions in greenhouse gas emissions in mind. They will make maximum use of decentralised and renewable or low carbon energy sources, sustainable construction technologies, and will be increasingly adapted to the changing climate.
  - The number of homes in the sub-region will rise as a result of increased allocations, with a mix required to provide balanced communities. Communities in the sub-region will benefit from increased quality of life, through efforts to encourage cohesion, tackle levels of social deprivation and provide access to services.
  - The economy of the GNDP area will continue to develop in rural and urban locations, in order to meet the needs of a growing population. There will be a growth in the number of jobs available, including a higher proportion of jobs in higher value, knowledge economy jobs.
  - The transport system in the GNDP area will be further developed, with Norwich featuring as an increasingly important transport hub in the region. Private cars will remain important, but improvements in sustainable transport options and accessibility, and improved IT links, will begin to offer more sustainable transport patterns.
  - The GNDP area will have maintained its existing cultural assets and will have the seen development of new or improved facilities. Developments will be increasingly within reach of opportunities for cultural and leisure activities, including access to green space.
  - Major growth and development will take place in the Norwich Policy Area (NPA), including increased housing, transport infrastructure and employment development. There will be



major new or expanded communities in the NPA, built to high design standards and addressing prior deficiencies and services and infrastructure.

- Norwich City Centre will play an increasingly important role as regional centre as a result of economic, social, physical and cultural regeneration measures. In the suburban area and fringe parishes of Norwich, green infrastructure will have been protected, maintained and enhanced.
- The four main towns in the area will accommodate increasing amounts of housing, town centre uses, employment and services. Residential development will occur around ten 'key service areas' settlements, with existing retail and service areas having been protected and enhanced where appropriate.
- Small scale housing development will take place in a number of 'service villages', with small scale employment and service taking place development in conjunction. A range of other villages will be increasingly developed within fixed boundaries through infill, small groups of dwellings and small-scale business or services.
- In smaller rural communities and the countryside there will be development in affordable housing and commercial enterprises that are in keeping with the rural setting and economy. The economy, environment, tranquillity, setting, visual amenity, recreational value and navigational use of the Broads will have been maintained and enhanced.

3.5.4 The following is a summary of some of the problems that could potentially arise in the future if it is the case that the remitted sections of the JCS remain remitted:

- Failure to plan for the distribution of the 9,000 homes referred to by the remitted text would lead to uncertainty regarding the potential to deliver them at all. Failure to meet housing need would be likely to have adverse social and economic consequences.
- Whilst it is unlikely that none of the 9,000 homes would be delivered, their location would be uncertain, with speculative planning applications assessed on their own merits without the aid of a guiding strategic plan.
- This lack of strategic direction would make it difficult to coordinate the provision of these homes with the necessary social and utility infrastructure investment, this could be especially significant in smaller and more isolated settlements.
- Ensuring an alignment between planning and transport policies could also be challenging. In particular, it may render some elements Norwich Area Transportation Strategy difficult to implement.
- Additional pressure could be placed on Norwich and South Norfolk to accommodate additional growth. This could potentially threaten Norwich's role as a regional centre and its levels of employment provision. Open space land and environmental quality in South Norfolk could also be negatively affected.
- A more fragmented, less coordinated approach to housing development in the JCS area may have resultant effects on the character of new development. For instance, it will be harder to bring about developments that promote healthy lifestyles through connectivity with services or employment by foot/cycle; challenging to deliver coordinated strategic green infrastructure; and more difficult to reduce carbon impact through provision of local energy generation.
- By not bringing forward housing as per the remitted sections of the JCS, 25 hectares of employment land will not be allocated, reducing options available for economic development.

### 3.6 What are the key issues that should be the focus of the appraisal?

**“any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC [Special Protection Areas under the Birds Directive] and 92/43/EEC”**

(SEA Directive Annex I(d))

#### Introduction

3.6.1 Drawing on the review of the sustainability context and baseline, the 2007 SA Scoping Report was able to identify a range of sustainability objectives and ‘decision aiding questions’ that should provide a methodological framework for the appraisal, ensuring it is focused on key sustainability issues only. These objectives and decision aiding questions have not been altered at this current stage, and are presented below.

Table 3.2: SA objectives and decision aiding questions

Environmental objectives:	
<b>ENV 1</b> To reduce the effect of traffic on the environment.	<p>Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?</p> <p>Will it increase the proportion of journeys using modes other than the car?</p> <p>Will it reduce the effect of HGV traffic on people and the environment?</p> <p>Will it encourage more benign modes of travel?</p> <p>Will new development be located such to reduce the need for people to travel?</p>
<b>ENV 2</b> To improve the quality of the water environment.	<p>Will it improve the quality of the water environment (streams, rivers, lakes etc)?</p> <p>Will it help to support wetland habitats and species?</p>
<b>ENV 3</b> To improve environmental amenity, including air quality.	<p>Will it improve air quality?</p> <p>Will it reduce the emission of atmospheric pollutants?</p>
<b>ENV 4</b> To maintain and enhance biodiversity and geodiversity.	<p>Will it conserve / enhance natural or semi-natural habitats, and promote habitat connections?</p> <p>Is it likely to have a significant effect on sites designated for international, national or local importance?</p> <p>Will it conserve / enhance species diversity, and in particular avoid harm to protected species?</p>
<b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment.	<p>Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant?</p> <p>Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage?</p> <p>Will it reduce the amount of derelict, underused land?</p> <p>Will it protect and enhance features of historical, archaeological and cultural value?</p>
<b>ENV 6</b> To adapt to and mitigate	<p>Will it reduce emissions of greenhouse gases by reducing energy</p>



against the impacts of climate change.	<p>consumption?</p> <p>Will it lead to an increased proportion of energy needs being met from renewable sources?</p> <p>Will it increase the capacity of the area to withstand the effects of climate change?</p> <p>Will it ensure that the risks to lives, land and property are minimised?</p>
<b>ENV 7</b> To avoid, reduce and manage flood risk.	<p>Will it minimise the risk of flooding to people and property?</p> <p>Can it incorporate new designs to adapt to possible flood risk?</p> <p>Will it promote the use of sustainable drainage systems to reduce run off?</p>
<b>ENV 8</b> To provide for sustainable use and sources of water supply.	<p>Will it conserve groundwater resources?</p> <p>Will it minimise water consumption?</p>
<b>ENV 9</b> To make the best use of resources, including land and energy and to minimise waste production.	<p>Will it minimise consumption of materials and resources?</p> <p>Will it promote the use of land in sustainable locations that has been previously developed?</p> <p>Will it use land efficiently?</p> <p>Will it minimise the loss of "greenfield" land?</p> <p>Will it avoid the loss of good quality agricultural land and preserve soil resources?</p> <p>Will it minimise energy consumption and promote energy efficiency?</p> <p>Will it promote the use of renewable energy sources?</p> <p>Will it lead to less waste being produced?</p> <p>Will it lead to less waste being disposed, by promoting more recycling and composting?</p> <p>Will it increase waste recovery for other means e.g. Energy generation?</p>
<b>Social objectives:</b>	
<b>SOC 1</b> To reduce poverty and social exclusion.	<p>Will it reduce poverty and social exclusion in those areas most affected?</p> <p>Will it help to reduce deprivation levels?</p> <p>Will it help meet the needs of residents most effectively?</p>
<b>SOC 2</b> To maintain and improve the health of the whole population and promote healthy lifestyles.	<p>Will it improve access to high quality health facilities?</p> <p>Will it encourage healthy lifestyles?</p> <p>Will it provide adequate health infrastructure for existing and new communities?</p> <p>Will the links between poorer health and deprivation be addressed?</p> <p>Will links to the countryside be maintained and enhanced?</p>
<b>SOC 3</b> To improve education and skills.	<p>Will it improve qualifications and skills for both young people and amongst the workforce?</p> <p>Will it help to retain key workers and provide more skilled workers from school leavers?</p>

	<p>Will adequate education infrastructure be provided for existing and new communities?</p> <p>Will it promote lifelong learning and skills training?</p> <p>Will links between lower levels of education and deprivation be addressed?</p>
<p><b>SOC 4</b> To provide the opportunity to live in a decent, suitable and affordable home.</p>	<p>Will it increase the range of types, sizes and affordability of housing for all social groups?</p> <p>Will it reduce the housing need and ensure that housing provision addresses the needs of all?</p> <p>Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?</p> <p>Will it make best use of existing housing stock?</p>
<p><b>SOC 5</b> To build community identity, improve social welfare, and reduce crime and anti-social activity.</p>	<p>Will it encourage engagement in community activities?</p> <p>Will it contribute to the achievement of a mixed and balanced community?</p> <p>Will it reduce actual levels of crime?</p> <p>Will it reduce the fear of crime?</p>
<p><b>SOC 6</b> To offer more opportunities for rewarding and satisfying employment for all.</p>	<p>Will it reduce unemployment overall?</p> <p>Will it help to improve earnings?</p>
<p><b>SOC 7</b> To improve the quality of where people live.</p>	<p>Will it improve the quality of dwellings?</p> <p>Will it improve the quality of local open space?</p> <p>Will it improve the satisfaction of people with their neighbourhoods?</p>
<p><b>SOC 8</b> To improve accessibility to essential services, facilities and jobs.</p>	<p>Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?</p> <p>Will it improve accessibility for all whilst reducing dependency on the private car?</p> <p>Will it improve access to jobs and services for all?</p>
<p><b>Economic objectives:</b></p>	
<p><b>EC 1</b> To encourage sustained economic growth.</p>	<p>Will it assist in strengthening the local economy?</p> <p>Will it improve business development and enhance competitiveness?</p> <p>Will it reduce vulnerability to economic shocks?</p> <p>Will it promote growth in key sectors?</p> <p>Will it increase vitality &amp; viability of town centres and improve economic diversity?</p>
<p><b>EC 2</b> To encourage and accommodate both indigenous and inward investment.</p>	<p>Will it encourage indigenous businesses?</p> <p>Will it encourage inward investment?</p> <p>Will it make land and property available for business?</p>

	<p>Will it improve economic performance across the Greater Norwich area?</p> <p>Will it support / encourage rural diversification?</p> <p>Will it support / encourage small city businesses?</p>
<p><b>EC 3</b> To encourage efficient patterns of movement in support of economic growth.</p>	<p>Will it improve provision of local jobs?</p> <p>Will it improve accessibility to work, particularly by public transport, walking and cycling?</p> <p>Will it reduce journey times between key employment areas and key transport interchanges?</p> <p>Will it improve efficiency and sustainability of freight distribution?</p> <p>Will it support provision of key communications infrastructure?</p>
<p><b>EC 4</b> To improve the social and environmental performance of the economy.</p>	<p>Will it reduce the impact on the environment from businesses?</p> <p>Will it reduce the impact on residents from businesses?</p> <p>Will it attract new investment and skilled workers to the area?</p> <p>Will it maintain existing business and employment provision?</p> <p>Will it provide employment in the best locations to serve urban and rural residents?</p>

## 4 WHAT REASONABLE ALTERNATIVES HAVE BEEN CONSIDERED IN DEVELOPING THE PLAN?

*“Where an environmental assessment is required... an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, **and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated**”*

(SEA Directive Article 5(1))

*The report should include: “an **outline of the reasons for selecting the alternatives dealt with**, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information”*

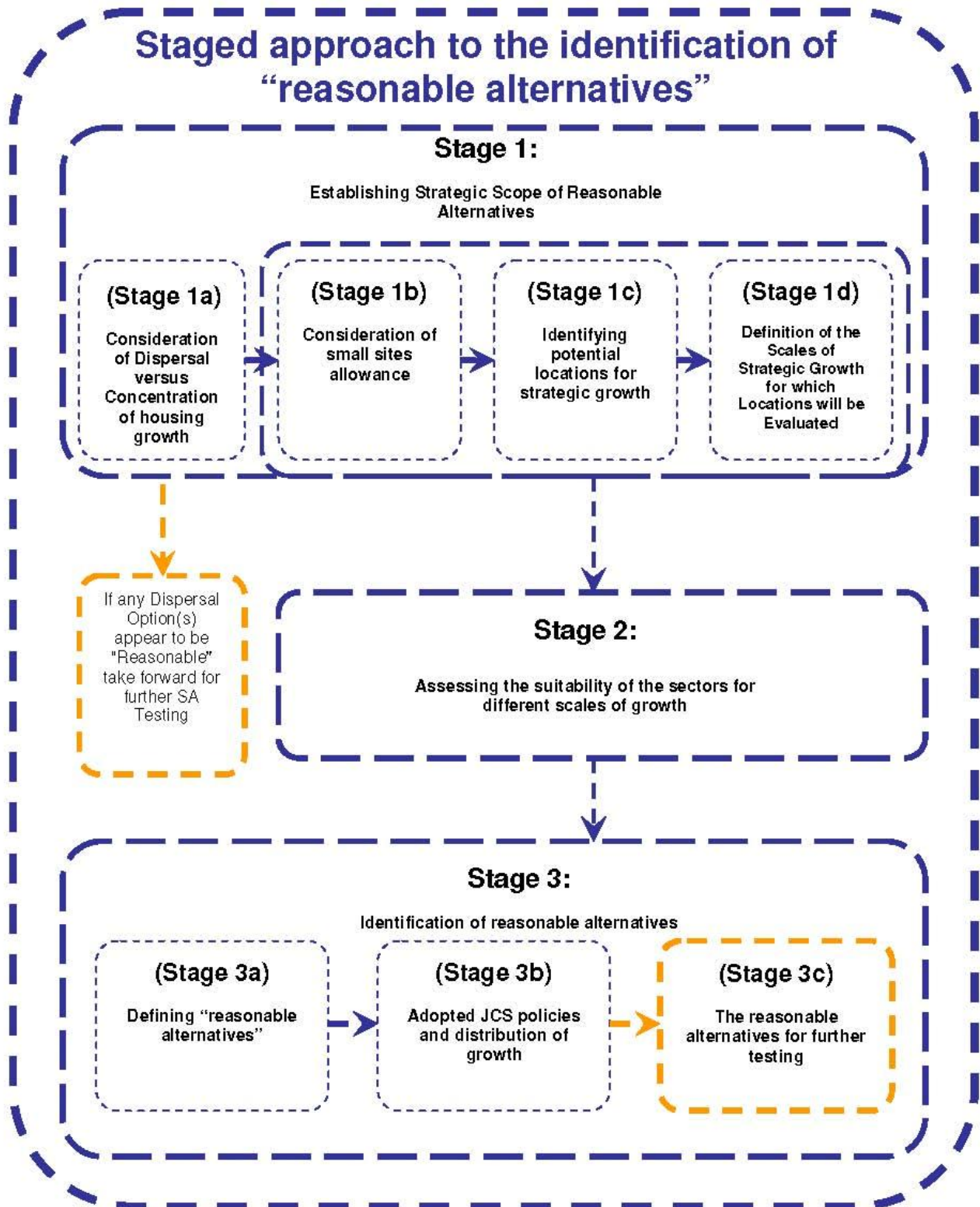
(SEA Directive Annex I(h))

### 4.1 Introduction

4.1.1 Article 5 (1) of the SEA Directive requires “reasonable alternatives” for a plan to be assessed through Sustainability Appraisal. The Directive requires these reasonable alternatives to be identified taking into account the objectives and geographical scope of the plan. The relevant objectives, for the purposes of this report, are those within the adopted JCS. The geographical scope is the Norwich Policy Area as defined by the adopted JCS. Reasonable Alternatives are defined within this context. By association, this process involves discounting alternatives to the plan which are not reasonable.

4.1.2 The staged approach used in this chapter to identify the reasonable alternatives to be appraised is summarised in Figure 4.1.

Figure 4.1: The process for identifying 'reasonable alternatives'



## 4.2 Scope of the Sustainability Appraisal

N.B. The remainder of section 4 contains introductory and concluding text in boxes to clarify the process for identifying the reasonable alternatives.

### Sections 4.2 and 4.3

- Establish that the housing numbers of 9,000 remain unchanged for this work
- Look at the alternatives for the location of 25 hectares employment land at Rackheath
- Consider the whole NPA and do not seek to re-visit parts of the JCS that remain adopted

4.2.1 Clearly, in remitting only part of the JCS, the Court Order does not strike out policies within the JCS which remain adopted. Nevertheless the consideration of reasonable alternatives must be carried out in the context of the NPA as a whole – not merely the part of it that lies within the district of Broadland.

4.2.2 As such, the SA covers the distribution of the 9,000 homes<sup>7</sup> which were dealt with by the remitted text, and consequential matters. The distributional policies within the JCS relating to development within Norwich and South Norfolk remain in place and the levels of growth proposed at each location remain as minima.

4.2.3 Work has been carried out in relation to the 9,000 dwellings which were remitted from the Broadland part of the NPA so as to consider whether this figure should change. A paper has been prepared by the GNDP, looking at housing numbers, housing trajectories and delivery. The report is a background paper to be included in the Proposed Submission documents. The paper concludes that 9,000 is the only reasonable housing number to be considered for distribution in the SA process.

4.2.4 There are a number of reasons for this:

- The Order did not remit the totals so did not require an examination of the housing totals.
- The housing numbers proposed in the Regional Strategy remain and the figure of 9,000 makes the Adopted JCS when taken with the remitted text, consistent with that strategy.
- Local evidence presented at the Examination in Public supported the level of housing being proposed without reliance on the Regional Strategy. This evidence was produced in direct response to Government's statement of intention to abolish regional strategies that was announced shortly before the JCS hearing sessions in November 2010.
- The latest updates of the East of England forecasting model<sup>8</sup> support the planned levels of jobs and housing growth, so the most recent evidence does not support any changes to overall scale of strategic growth.

4.2.5 As well as considering the redistribution of housing, the SA will also address the potential alternatives to the allocation of 25 hectares of employment land at Rackheath, which was also remitted by Order of the Court.

### Employment land

4.2.6 The JCS as originally adopted includes a reference to 25 hectares of additional employment land to be allocated at Rackheath as part of the strategy for growth in the Norwich policy area. It explains the reason is to strengthen the employment role of the location and provide local employment opportunities for the new community proposed in the area.

<sup>7</sup> That were to be delivered during the plan period

<sup>8</sup> The most recent East of England forecasting model is available from <http://www.cambridgeshire.gov.uk/business/research/economylab/Economic+forecasts.htm>



4.2.7 In recognition of the close linkage between the housing proposals in the north east growth triangle and the additional 25 hectare employment land requirement this was included in the remitted text.

#### Scale of employment growth

4.2.8 The principal document in the evidence base supporting economic development policies in the JCS was the “Greater Norwich Employment Growth and Sites and Premises Study” prepared by Arup and Oxford Economics.

4.2.9 This notes the potential for a business park of up to 50 hectares linked to the provision of the northern distributor road, and the Airport. It also notes that this would assist in the geographical balance of employment opportunities by retaining significant employment opportunities in the northern part of the urban area.

4.2.10 The study also confirms that, in terms of the distribution of new employment growth, the provision of additional employment to serve the northern part of the urban area would be beneficial, but also acknowledges that new allocations of business parks associated with major housing allocations is a reasonable approach if the housing allocations are large and geographically focused.

4.2.11 With this in mind, in drawing up the JCS as originally adopted, the decision was made to retain the proposal for a new business park at the Airport, but at a reduced scale, with the balance of employment provision being directed towards Rackheath, as an expansion of the existing employment area. This approach was explained in a topic paper produced for the previous public examination entitled “Employment and Town Centre Uses”.

4.2.12 Recent evidence from the East of England Forecasting Model confirms the expected level of jobs growth in the area of the JCS slightly exceeds that provided for in the JCS.

4.2.13 It is therefore concluded that all reasonable alternatives should provide for a similar level of overall employment allocation to that in the JCS, as originally adopted.

### 4.3 Process for defining reasonable alternatives

4.3.1 The SEA Regulations require the SEA Report to:

*identify, describe and evaluate the likely significant effects on the environment of*

*(a) implementing the plan or programme; and*

*(b) reasonable alternatives taking into account the objectives and geographic scope of the plan or programme*

4.3.2 The Judgement found that the Sustainability Appraisal Report supporting the JCS had not properly explained the alternatives to growth in the NEG (if any) and the reason for their rejection.

4.3.3 The Issues and Options stages of preparation of the JCS looked at alternatives for strategic growth and the public consultation of November 2007 provided the opportunity for respondents to suggest their own combination of major growth options (Q13 Option D).

4.3.4 The current SA considers the scale of growth that is the subject of the remitted text. It is not a re-examination of options put forward at the 2007 Issues and Options stage but a fresh derivation of reasonable alternatives based on current information. The situation is now different as, in accordance with the court order, the minimum allocations for Norwich and South Norfolk are fixed in the adopted JCS. Therefore the particular combination of alternatives that might have been reasonable at the 2007 stage is no longer open.

4.3.5 The process for defining reasonable alternatives described below has been developed in accordance with the 'SEA Directive' 2001/42/EC, the implementing regulations (SI 2004 No.1633), the Judgement and the High Court Order of Ouseley J. Its purpose is to identify those reasonable alternatives, if any, to the distribution of development identified within the remitted text of the JCS.

4.3.6 The SEA Directive does not define the term 'reasonable alternative'. However, European Commission guidance on the Directive considers an alternative to be "a *different way of fulfilling the objectives of the plan or programme*".<sup>9</sup> For an alternative to be reasonable it must therefore assist in implementing the objectives of the plan, in this case the 12 spatial planning objectives included in the JCS. In addition, for an alternative to be reasonable it must also fulfil a number of other criteria, for example, can it be genuinely implemented in practice? The criteria and the method by which reasonable alternatives have been defined and unreasonable alternatives screened out are explained in the following sections.

#### 4.4 Stage 1: Establishing the strategic scope of reasonable alternatives

4.4.1 Stage 1 of the process of defining reasonable alternatives seeks to establish the strategic scope of those reasonable alternatives i.e. the principle considerations of dispersal and concentration strategies, appropriate scales for strategic and non-strategic housing growth and the identification of potential strategic growth locations. The four steps in Stage 1 are:

- Stage 1(a) Evaluation of Dispersal versus Concentration of new development
- Stage 1(b) Scale of the Small Sites Allowance
- Stage 1(c) Identification of Potential Sectors and Combination Sectors for Strategic Growth
- Stage 1(d) Scales of Strategic growth

#### 4.5 Stage 1a: Dispersal versus concentration of housing growth

**Stage 1a) considers the reasonableness of concentrating all of the 9,000 homes in one single location. The section also considers the relative merits of dispersing or concentrating the housing growth within the whole NPA. This involves firstly identifying the scope for dispersing further growth in Norwich and South Norfolk and secondly considering the consequent variety of dispersal options within the Broadland NPA.**

4.5.1 The following section examines strategic concentration of housing growth and dispersal scenarios.

##### Scope for concentration of housing growth

4.5.2 The remitted text of the JCS included an approach to distribution which sought to concentrate development in specific areas as a way of maximising the benefits of development and overcoming infrastructure constraints, which could only be addressed through the delivery of development at certain levels of critical mass.

4.5.3 The GNDP has undertaken some research into the rate of development achieved on large developments. This highlights two significant considerations:

4.5.4 The first is that there is inevitably a time lag between the initial planning of a large development and the first completions. This is often significant, but may be reduced where there has been preparatory work undertaken through the plan preparation process, or where developers have worked up a scheme they wish to promote. Several prospective developers have been active in undertaking preparatory work in some of the sectors identified for consideration.

<sup>9</sup> European Commission (undated). Implementation of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment [online] available at: [http://ec.europa.eu/environment/eia/pdf/030923\\_sea\\_guidance.pdf](http://ec.europa.eu/environment/eia/pdf/030923_sea_guidance.pdf)

- 4.5.5 The second consideration is that there is a practical limit to the rate at which an individual developer will be able to build dwellings at a given site. The rate of completions will be increased where affordable houses are constructed on behalf of a housing association. In the case of larger developments, with a number of developers involved, the rate of sales can increase, though probably not pro rata. Furthermore in the case of very large developments where there will be opportunity for development to be planned in a number of distinct and separate localities, rates can be increased further, but again nearby local competition will have some effect.
- 4.5.6 Taking all these factors together, it is considered that a development of 7,000 dwellings in one location could be delivered by 2026, subject to sufficiently buoyant market demand, but that it would not be practical for 9,000 dwellings to be delivered in one location by that date (see Appendix D).
- 4.5.7 It has been concluded that delivering all 9,000 new homes in one location is not feasible, and would not therefore be a realistic option. Such a strategy would negate the need for a small sites allowance. However, if strategic scale development in more than one location could provide for all 9,000 dwellings to be delivered by 2026, that too would negate the need for a small sites allowance. While this may not fail the test of deliverability in the same way, the consequences of no allowance for small scale non-strategic development have been assessed in relation to the JCS objectives and are set out in Appendix I.
- 4.5.8 The conclusion of this work is that such an approach would not be reasonable.

#### The scope for dispersal of housing growth

- 4.5.9 An alternative approach involves dispersing growth widely among a very large number of locations so as to absorb existing infrastructure capacity whilst avoiding breaching any significant infrastructure constraints.
- 4.5.10 The dispersal of new growth through development at a large number of relatively small sites can yield some benefits. These include the capacity for new residents to rely on existing infrastructure and services; the promotion of plan delivery through minimising reliance on the development of larger sites and associated infrastructure; and minimising construction and lead-in times for new development.
- 4.5.11 There is potentially a very wide range of possible dispersal scenarios that could be pursued, as a consequence of this, testing all possible alternatives is unfeasible. This practicality accepted, there remains the need to robustly and credibly consider whether there is a dispersal scenario(s) which would represent a reasonable alternative to an approach which seeks, either in part or in totality, to concentrate growth within specific locations.
- 4.5.12 As has already been established, the subject of this exercise is the distribution of development that was formerly identified for the NEG and NPA within Broadland, i.e. 9,000 homes and associated development by 2026. Therefore, the first task must be to quantify the scope for dispersing the 9,000 homes across the NPA. The estimated capacity of each of the three districts to accommodate further dispersed growth is discussed in turn below .

#### Norwich

- 4.5.13 Adopted JCS policy 4 requires sites to be allocated for housing in Norwich based upon estimates of the reasonable capacity in the city. Reasonableness is defined taking into account the need to avoid undermining the supply of land for other uses in order to retain Norwich's role as a regional centre and to ensure a good quality of life for residents. This includes the need to maintain an adequate supply of office and other employment land and to provide an appropriate amount of green infrastructure. During the preparation of the JCS, using evidence from the Strategic Housing Land Assessment (SHLAA), this level was judged to be approximately 8,500 dwellings. At the base date of the JCS, Norwich had approximately 5,500 dwellings that already had planning permission or were allocated through the local plan.

Therefore the JCS requires sites to be allocated to provide for a minimum of 3,000 additional homes in Norwich, including mixed use development incorporating housing. This effectively uses up the reasonably available capacity of sites for allocation in Norwich. Current evidence from the emerging Site Allocations plan shows that 3,000 additional dwellings remains a reasonable expectation of the capacity of housing allocation sites within the city. Therefore there is no scope for the redistribution of further growth to Norwich (see Appendix E).

#### *South Norfolk*

- 4.5.14 The policies of the JCS which remain in force seek to strike a balance between the allocation of strategic scale growth to specific locations and dispersal through a non-locationally specific small scale sites allowance of 1,800 homes. The scope for redistributing growth from the Broadland part of the NPA to South Norfolk for subsequent dispersal needs to be considered. The ongoing site allocations work being undertaken by South Norfolk Council (which has now reached the preferred options stage) indicates that the small scale sites allowance of 1,800 dwellings remains reasonable. The figure of 1,800 reflects the capacity of existing settlements to accommodate new growth. Any significant increase in the small-scale sites allowance for South Norfolk would therefore: (i) place undue pressure on smaller settlements in terms of infrastructure and service provision and / or, (ii) require more of the non-locationally specific small sites allowance to be accommodated in strategic locations. Dispersing growth from the Broadland part of the NPA through increasing the small-scale sites allowance for South Norfolk is not therefore considered a reasonable alternative for testing (see Appendix F).
- 4.5.15 The scope for reasonable alternatives through the redistribution of strategic scales of growth, as opposed to non-strategic dispersal scales, in South Norfolk is considered in later stages of this assessment.

#### *Broadland*

- 4.5.16 The evidence in 4.5.13 and 4.5.14 clearly demonstrates that accommodating the remitted growth in Broadland through additional development in Norwich or through dispersed growth in South Norfolk is not feasible. Any alternatives for delivering some or all of the 9,000 new homes through a strategy of dispersal are therefore confined to the Broadland part of the NPA.
- 4.5.17 Consideration could be given to a wide range of possible dispersal scenarios in Broadland. However, for the purposes of practicality, the vast range of potential choices has been reduced to four scenarios. This range is considered sufficiently all-encompassing and provides a means to identify whether there are any dispersal scenarios that might be considered “reasonable” for testing through the SA.
- 4.5.18 These four dispersal scenarios are:
1. Even dispersal across all Broadland NPA Parishes;
  2. Dispersal across up to 9 settlements within the Broadland NPA with a minimum of 1,000 homes in each settlement;
  3. Proportional distribution across all of the Broadland NPA parishes relative to the existing population of settlement, i.e. larger settlements would see proportionally more development, smaller settlements proportionally less development but still providing a total of 9,000 dwellings; and
  4. Dispersal across the Broadland NPA based on analysis of local infrastructure capacity and constraints.
- 4.5.19 Appendix G provides an analysis of the dispersal scenarios against the objectives of the JCS.
- 4.5.20 The evaluation undertaken in Appendix G clearly leads to the conclusion that no dispersal scenario would fulfil the objectives of the JCS, and as such, dispersal within Broadland is not a “reasonable alternative”. However, what is also clear from the analysis of scenario 4 is that some level of dispersal could be appropriate, allowing for flexibility in delivery and allowing for

small scale growth outside any major growth locations. This lends support to the concept of setting aside a certain proportion of the overall development in Broadland in the form of a 'floating' allowance for small scale housing development, the locations for which would be determined through subsequent site allocations work. This is a principle which was supported by the inspectors at the public examination into the JCS held in 2010.

**Stage 1(a)** concludes that concentrating 9,000 dwelling in a single location would not be reasonable within the plan period. There is no scope for accommodating additional housing growth in Norwich and no scope for accommodating additional dispersed housing growth in South Norfolk. There is no dispersal strategy for the 9,000 homes in the Broadland NPA which could be considered to be a reasonable alternative. However, any reasonable alternative should include some degree of dispersal through the provision of a "small sites allowance" of housing growth not assigned to a specific location. The purpose of this small sites allowance is to provide flexibility to assist in delivery of housing, allowing for some small scale growth outside major growth locations.

*N.B. Whilst distributing further housing growth to South Norfolk through the method of dispersal, i.e. increasing the small sites allowance, has been discounted as a reasonable alternative at this stage, other alternatives in the form of strategic growth strategy have not been ruled out and will be considered in a later section.*

#### 4.6 Stage 1b: The small sites allowance

**Stage 1b** considers the appropriate scale of the Small Sites Allowance for housing sites in the Broadland NPA.

- 4.6.1 Identifying the appropriate number of homes which should be delivered through a small sites allowance is important not just in itself but also because it will determine the residual amount of housing that will need to be dealt with as strategic growth.
- 4.6.2 Three scenarios for the size of the floating allowance have been considered:
1. 1,000 new homes
  2. 2,000 new homes
  3. 3,000 new homes
- 4.6.3 Appendix H provides an analysis of the scenarios for the size of the floating allowance against the objectives of the JCS. The conclusions of this analysis are summarised below.
- 4.6.4 There are a number of local opportunities for development which respects the built form and can use local services already in existence which should not be missed. The degree of flexibility offered by a small sites allowance is also important in terms of increasing choice, and giving the scope for some developments to commence quickly with limited lead in times.
- 4.6.5 A low small sites allowance of 1,000 homes would lead to some opportunities being missed or not taken full advantage of and would also mean that some existing infrastructure investment would not be used as efficiently as it might otherwise be. A low small sites allowance would also necessitate an increase in the strategic sites allowance, adding to the challenge of delivering development on large sites.
- 4.6.6 A high small sites allowance of 3,000 homes would likely increase the proportion of development not directed to sustainable locations with undesirable consequences. Furthermore, a higher scale of non-locationally specific development might not fulfil the objectives of a floating allowance if, in practice, it lead to an undesirable increase in development in strategic growth locations.
- 4.6.7 The analysis, taking account of the work on capacities, as shown above, leads to the judgement that a small sites allowance of 2,000 in the Broadland part of the NPA is appropriate number. Significantly increasing or decreasing the size of the floating allowance

would detract from the objectives of having a small sites allowance in the first instance. In light of this analysis, there are no reasonable alternatives to a small sites allowance of around 2,000 new homes for the Broadland part of the NPA.

- 4.6.8 Having established that a floating allowance of 2,000 is appropriate, this leaves 7,000 of the remitted 9,000 new homes to be accommodated through focused strategic growth in the NPA by 2026. The following sections consider where the 7,000 new homes within the NPA are most appropriately located. The following analysis of strategic growth locations assumes that there will be some small scale floating allowance that could occur and could go in any sector.

**Stage 1b)** concludes that a “small sites allowance” of 2,000 in the Broadland part of the NPA should be a constant element of any reasonable alternative and could be located in any of the identified sectors. This leaves the residual amount of 7,000 homes to be dealt with through a pattern of strategic scale growth.

**4.7 Stage 1c: Identifying potential locations for strategic housing growth**

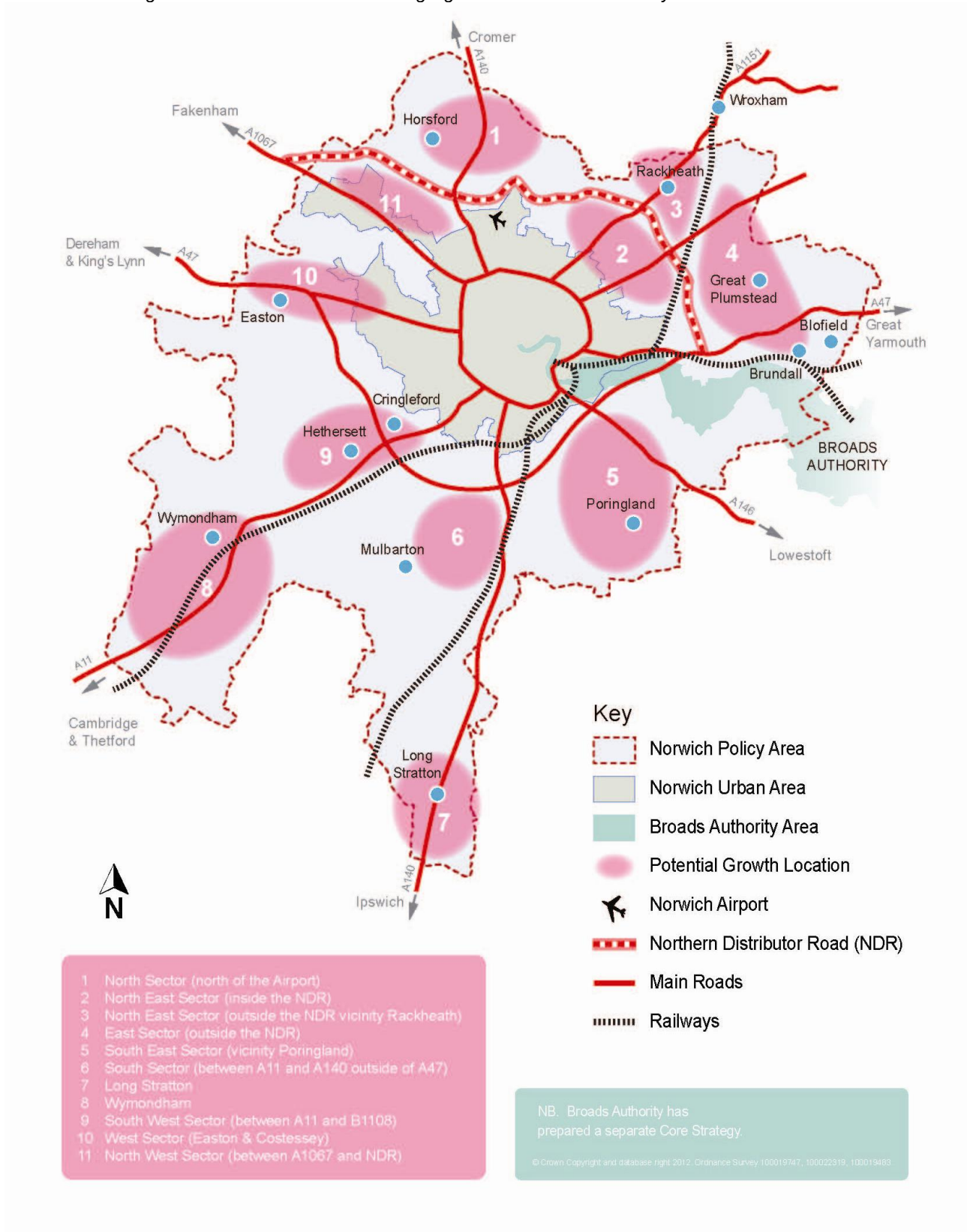
**Stage 1c)** is a 2 part, stepped approach to identifying potential locations for strategic growth in the NPA for evaluation in Stage 2. The first step is to identify sectors within the NPA suitable for strategic scale growth. The second step is to evaluate which combinations of sectors, if any, should be considered for strategic scale growth.

**Step 1 – Identification of sectors**

- 4.7.1 An analysis of physical constraints across the NPA shows that relatively few areas are absolutely constrained.
- 4.7.2 Around the Norwich urban fringe, there are relatively few constraints, and so potential sectors cover all points of the compass, save for some particularly sensitive areas (such as the Wensum, Yare and Tas river valleys, the Roman settlement at Caistor St Edmund and sites in close proximity to Whitlingham sewage treatment works) which, because of their characteristics are not suitable for strategic scale growth.
- 4.7.3 In addition to the Norwich Fringe, the market town of Wymondham and the large village of Long Stratton in the NPA have been identified as potential locations. These settlements are included because they already offer a range of services and employment opportunities that would support strategic growth in that location.
- 4.7.4 This analysis has identified 11 individual sectors to be evaluated for their potential to accommodate strategic growth. These are shown on the diagram below. Note these sectors have been defined to assist in debate over potential locations for future development and do not have strict boundaries.



Figure 4.2: Possible areas for strategic growth in the Norwich Policy Area



## Step 2 – Identification of combination sectors

- 4.7.5 In addition, some combinations of sectors have been considered where there is the potential for a clear functional linkage between them and where combining sectors may improve their potential as locations for major strategic growth. Pairing different sectors could, for example, be advantageous from an environmental point of view if development over a wider area allowed for more significant green infrastructure provision or more space for community facilities. Note that locations that are not adjacent to one another will not be considered in combination.
- 4.7.6 Table 4.1 illustrates those locations where there were considered to have potential for a good functional linkage. A full description of the reasons behind the decisions taken is included as Appendix J.
- 4.7.7 Table 4.1 shows that the only combinations of sectors considered suitable to evaluate were:
- South-West and Wymondham
  - North-East (Inside Norwich northern distributor road [NDR]) and North-East (Outside NDR)
  - East and North-East (Inside NDR)
  - East and North-East (Outside NDR)
  - North-East (Inside NDR) and North
  - North-East (Outside NDR) and North
  - North-West and North
- 4.7.8 In light of this, there are a total of 18 sectors or combinations of sectors suitable for evaluation and these are henceforth referred to as 'locations'.

**Stage 1(c)** concludes that 18 locations in the NPA will be evaluated for the potential to accommodate strategic scale growth in Stage 2.

Table 4.1: Potential for combining sectors

✓	<b>Potentially Good Functional Relationship</b>
○	<b>Not adjacent</b>
✗	<b>Poor Functional Relationship</b>

	West Sector	South-West Sector	Wymondham	South Sector	Long Stratton	South-East Sector	East Sector (Outside NNDR)	North-East Sector (Inside NNDR)	North-East Sector (Outside NNDR)	North Sector	North-West Sector
West Sector		✗	○	○	○	○	○	○	○	○	✗
South-West Sector			✓	✗	○	○	○	○	○	○	○
Wymondham					○	○	○	○	○	○	○
South Sector					○	✗	○	○	○	○	○
Long Stratton						○	○	○	○	○	○
South-East Sector							✗	○	○	○	○
East Sector (Outside NNDR)								✓	✓	○	○
North-East Sector (Inside NNDR)									✓	✓	○
North-East Sector (Outside NNDR)										✓	○
North Sector											✓
North-West Sector											

#### 4.8 Stage 1d: Scales of strategic growth

**Stage 1(d)** defines and provides reasons for the reasonable scales for strategic growth against which locations identified in 1c will be evaluated in stage 2.

- 4.8.1 Three levels of strategic scale growth have been defined: Small (1,000 to 1,500); Medium (1,500 to 3,000); and, Large (7,000 to 10,000).
- 4.8.2 These scale were defined principally on the basis of the scale of development at which infrastructure limits were generally expected to be reached and/or the level at which a sufficient level of development was achieved to deliver the necessary supporting facilities.
- 4.8.3 An explanation of how and why these three scales of growth were defined is set out in Appendix K. It also explains why growth in the range of 3,000 to 7,000 dwellings is not reasonable.

**Stage 1d)** concludes that three scales of strategic housing growth against which potential strategic growth locations should be evaluated: Small (1,000 to 1,500 dwellings), Medium (1,500 to 3,000) and Large (7,000 to 10,000).

#### 4.9 Stage 2: Assessing the suitability of the sectors for different scales of growth

**Stage 2** involves assessing the 18 locations in terms of their suitability for accommodating small, medium or large-scale development with reference to the JCS objectives.  
*The combined locations are only assessed for large scale growth*

- 4.9.1 Locations consisting of a combination of sectors are only considered for large scale growth because smaller scale assessment of combinations would not differ from those assessments that looked at those locations individually.
- 4.9.2 The results of this evaluation are shown in brief in Tables 4.2 – 4.4, alongside a short summary of the reasons for the decision made. The evaluations and full summaries relating to the assessment of locations for strategic scale growth can be found in Appendix L.

Table 4.2: Potential for individual locations within South Norfolk to accommodate strategic growth

Location	Suitability	Summary of Reasoned Justification
West Sector	May have potential for small scale strategic growth	The proximity of the sector to sensitive river valley habitats limits land availability. Large scale development east of Easton would be expected to have a significant impact on the trunk road. High school occupies a constrained site which has limited capacity to expand. This makes the area unsuitable for large or medium scale strategic growth.
South-West Sector	Suitable for Small or Medium scale strategic growth and may have potential for large scale strategic growth	The proximity of this sector to strategic employment areas, potential for public transport enhancement and availability of land which is not constrained by environmental considerations make this area suitable for small, medium or large scale strategic growth.
Wymondham	Has potential for Small and Medium scale strategic growth	The range of services & facilities within the town, access to employment opportunities and potential for public transport make the area suitable for Small and Medium scale strategic growth. Owing to limitations to the capacity for secondary school expansion the scale of growth is limited to 2,200 dwellings. The investment for this is already committed, and the first phase of construction has started. This means that any further growth in this sector would need to be of a sufficient scale to justify a further high school. That is some of 7,000-10,000 houses in addition to the current adopted provision, whether provided at Wymondham alone, or at Wymondham in combination with another sector. Large scale strategic growth in the sector is considered inappropriate because of the resultant impact upon the setting and historic centre of Wymondham as a stand-alone market town.

South Sector	Unsuitable for Strategic Scale growth	The sector's poor relationship to strategic employment opportunities and high school provision, the limited accessibility of services and facilities and limited scope for significant public transport enhancements mean this sector is unsuitable for strategic scale growth.
Long Stratton	Has potential for Small and Medium scale growth	Small scale strategic development would assist with delivery of a bypass which would significantly improve environmental conditions within the village and reduce congestion on this stretch of the A140. Waste Water capacity limits the scale of growth in Long Stratton to 1,800 homes.
South-East Sector	Unsuitable for Strategic Scale growth	The poor relationship of the sector to strategic employment opportunities and limited scope for the enhancement of public transport connections to Norwich make this sector unsuitable for strategic scale growth.

Table 4.3: Potential for individual locations within Broadland to accommodate strategic growth

Location	Suitability	Summary of Reasoned Justification
East Sector (Outside NDR)	Unsuitable for Strategic scale growth in isolation <sup>10</sup>	The proximity to sensitive Broads' habitat, high incidence of Grade I & II agricultural land, limited access to a range of strategic employment areas and limited opportunities for public transport enhancement mean the sector is unsuitable for strategic scale growth in isolation.
North-East Sector (Inside NDR)	May have potential for Small or Large scale strategic growth	Very good relationship to strategic employment opportunities, range of existing services and facilities in the Urban Fringe and potential for improvements to public transport enhancements mean that this

<sup>10</sup> The sectors geographical position adjacent to the high performing North-East Sector (Inside NDR) has meant that the sector performance as a combination option has also been considered.



		sector is highly suitable for small or large scale strategic growth. Sector is unsuitable for Medium scale growth because it would overwhelm high school capacity yet could not support a new school.
North-East Sector (Outside NDR)	Unsuitable for Strategic Scale growth in isolation	The limited range of existing local services and facilities and limited public transport connections indicate that this area would not be suitable for strategic scale growth in isolation. Accessibility and service/facility enhancement could be supported by higher scales of growth but capacity limitations within this sector and mean this would need strategic level growth in adjacent sectors with a good functional relationship to this sector. Large scale growth in this location in isolation may also be constrained by proximity to the sensitive Broads' habitat.
North Sector	Unsuitable for Strategic Scale growth in isolation	The limited availability of services and facilities, poor relationship to the urban fringe and limited access to strategic employment, other than at Norwich Airport mean that this sector, in isolation, would only be suitable for non-strategic scale growth.
North-West Sector	Has potential for Small scale strategic growth	A range of local services are provided within the sector. Hellesdon High School has some capacity. The A1067 is scheduled for BRT provision. Therefore the sector is considered suitable for small scale strategic growth. Medium scale growth is expected to place a significant burden on high schools without providing sufficient critical mass to support new provision. Large scale growth would place a significant burden on very limited radial road connections, particularly for development at western end and this would also be likely to further compound problems with cross-valley traffic flows.

Table 4.4: Potential for certain combinations of individual locations to accommodate strategic growth

Location	Suitability	Summary of Reasoned Justification
East & North-East Sectors (Outside NDR)	Not suitable for Large scale strategic growth	There is a limited functional relationship between the two sectors with the railway presenting a particular boundary to cross-sector movement. The limitations identified for East sector continue to weigh against this option and combining with the North-East sector does not provide an obvious solution. Therefore the combination is not considered suitable for strategic growth.
East Sector (Outside NDR) & North-East Sector (Inside NDR)	Not suitable for Large scale strategic growth	The limited scope for extending BRT services into the East sector, constrained functional relationship to large parts of the North-East sector (Inside NDR), significant loss of Grade I & II agricultural land that would result in the East sector and proximity of the East sector to sensitive Broad habitats indicates that a combination of the sectors is not suitable for large scale growth.
North-East Sectors (Inside & Outside NDR)	Suitable for Large scale strategic growth	This combination of sectors provides opportunities for synergistic public transport and cycling connections via Plumstead Road. The additional options which result from combining the sectors build on the strengths of the North east inside the NDR by offering better scope for linking habitats with strategic green corridors and providing an additional focal point aiding delivery. The close geographical relationship between the sectors and their combined capacity to deliver growth at a scale to overcome local infrastructure constraints indicate that this combination of sectors is suitable for Large scale growth.

North-East Sector (Inside NDR) & North Sector (north of Airport)	Not suitable for Large scale strategic growth.	There is a limited, functional relationship between the two sectors. Therefore this combination performs as it would as individual locations. The deficiencies of the north sector highlighted above, including environmental sensitivities in its eastern part, are not easily overcome As such the combined sector is unsuitable for Large scale strategic growth.
North-East Sector (Outside NDR) & North Sector (North of Airport)	Not suitable for Large scale strategic growth.	The environmental and landscape designations between the eastern and western parts of the combined sectors limit functional relationships. In addition, there are potential proximity impacts on SAC habitats at the 7,000 to 10,000 scale. The location of principal public transport routes at either edge of the sector is likely to limit investment potential and public transport opportunities. This suggests that this combination of sectors is inappropriate for large scale growth.
North Sector (north of Airport) & North-West Sector.	Not suitable for Large scale strategic growth.	There is a limited functional relationship between the two sectors. The combination therefore suffers from the same problems of connections to strategic employment and potential for public transport enhancement as do the individual locations. Therefore the combination is considered unsuitable for Large scale strategic growth.
South-West Sector and Wymondham	Not suitable for Large scale strategic growth	The combined location has a good functional relationship in some ways, sharing transport corridors, and being close to a number of strategic employment locations. There is also good access to existing facilities. However in terms of education and the form of any development there are very serious drawbacks. Wymondham High School can be expanded to serve the committed scale of development, but no more, and work to bring about

this adaptation has started. Hethersett High School can be expanded if adjacent land can be made available, If growth in the combined sector were to rely on this expansion it would restrict growth to the lower end of the scale since the high school is at the opposite side of Hethersett to Wymondham, thus challenging the ability to bring forward the land required for the schools expansion to support this combination.

For large scale growth, a third high school would be likely to be needed, and given environmental constraints to the west and south west of Wymondham, and near the southern bypass and Yare valley, such large-scale growth would be likely to be located between Wymondham and Hethersett. Without clear existing topographical or landscape features to shape development it could erode the identities of existing settlements. If this incorporated and significant local or district centre facilities to act as a focus with the high school, there is a risk this could compete with the historic town centre of Wymondham.

A combination of the two sectors is therefore considered unsuitable for large-scale strategic growth.

Stage 2 conclusions

4.9.3 The Evaluation of Sectors has identified that six individual locations and one combination have potential for strategic scale growth – see Table 4.5.

Table 4.5: Conclusions on identified scale of potential growth by sector

Location	Identified scale of potential growth		
	Small 1,000 to 1,500	Medium 1,500 to 3,000	Large 7,000 to 10,000
North-East (Inside & Outside NDR)	✗	✗	✓
North East (Inside NDR)	✓	✗	✓
South-West Sector	✓	✓	✓
West Sector	✓	✗	✗
Long Stratton	✓	✓ (limited to 1,800) <sup>11</sup>	✗
Wymondham	✓	✓ (limited to 2,200) <sup>12</sup>	✗
North-West Sector	✓	✗	✗

4.9.4 It should be noted that, some locations are considered suitable for more than one scale of strategic growth e.g. Wymondham is considered suitable for both small and medium scale strategic growth

4.9.5 Five locations are considered to be unsuitable for strategic scale growth in isolation. However, one of these, North-East (Outside NDR), is considered suitable for Large Scale Strategic Growth as part of the combination option North-East (Inside and Outside the NDR).

**Stage 2 concludes that six individual locations and one combination of locations have potential for strategic scale growth at difference scales. The implications of this analysis in terms of identifying reasonable alternatives is considered further in Stage 3.**

<sup>11</sup> The limit of potential development levels in Long Stratton is set by the expected maximum capacity for the disposal of Waste Water.

<sup>12</sup> The limits of the potential for the expansion of Wymondham High School, to which funding has already been provided, has limited the potential level of development in Wymondham.

#### 4.10 Stage 3: Identification of reasonable alternatives

**Stage 3** identifies the “reasonable alternatives” for strategic growth to be tested through Sustainability Appraisal. This is done through a three staged process:

- **Stage 3(a)** defines what a “reasonable alternative” will need to achieve in terms of housing and employment delivery in the NPA.
- **Stage 3(b)** explains the implications of the adopted JCS housing allocations when considering opportunities for additional strategic growth in the suitable sectors, as identified in Stage 2.
- **Stage 3(c)** identifies the three “reasonable alternatives” which can be derived from the preceding evaluation process. These reasonable alternatives are those which will be subject to further Sustainability Appraisal.

#### 4.11 Stage 3a: Defining reasonable alternatives

4.11.1 Having identified the suitability of individual and combination locations to accommodate strategic-scale growth, “reasonable alternatives” can be defined.

4.11.2 In order to be considered “reasonable” those alternatives will need to enable the delivery of the number of homes which are included within the remitted text of the Joint Core Strategy and which have been identified as needing to be dealt with through strategic allocation. In this instance, the number of homes needing to be dealt with through strategic allocations is 7,000.

4.11.3 Evidence indicates that that no single location can reasonably be expected to deliver significantly more than 7,000 homes within the plan period on newly allocated sites (see Appendix D). Therefore a reasonable alternative cannot include more that 7,000 homes in any individual or combination location in the plan period.

4.11.4 10,000 new homes would need to be planned for in any single or combination location in order to secure the long term viability of a new secondary school. Therefore if there is any uncertainty about the potential of existing secondary schools within a potential large scale growth location to expand sufficiently to accommodate the 7,000 dwellings then its potential to accommodate additional development beyond the plan period will need to be evaluated.

##### Reasonable alternatives for employment

4.11.5 The objectives of the JCS include several which highlight the connection between jobs and homes, including objective 1 (climate change) which promotes sustainable access, objective 2 (housing) which indicates housing should be grouped with other services including jobs, objective 3 (employment) which seeks to reduce commuting distances, objective 4 (regeneration) which seeks to use development and growth to bring benefits to deprived areas and objective 7 (reducing the need to travel) which also promotes co-location of different uses.

4.11.6 The approach of seeking to relate employment and housing has been widely endorsed, including in good practice advice on urban extensions and new settlements produced by the Town and Country Planning Association, and in specific research seeking to learn from experience (research on Cambourne produced by Inspire East). Such an approach was also supported in the ecotowns supplement to the former PPS 1 (which remains extant government policy). This included the expectation that there should be access to one employment opportunity per new dwelling easily reached by walking, cycling and/or public transport in such developments.

4.11.7 In light of the JCS objectives and other considerations such those set out above, the JCS sought to ensure that people should, as far as possible, have the opportunity to live and work in close proximity. While the planning system can only create the opportunity for such a



lifestyle, it is nevertheless considered valid that affording the opportunity will assist with the sustainability of the strategy.

- 4.11.8 It is therefore concluded that all reasonable options should seek to ensure good connections between housing and employment. Stages 1a and b of this assessment have already concluded that a strategy of dispersal to accommodate all the required housing would not be reasonable. Furthermore, dispersal of employment opportunities is unlikely to lead to a sufficient critical mass to enable public transport access, or justify walking or cycling infrastructure.
- 4.11.9 It is therefore concluded that dispersal of the additional employment allocation to be made would not be reasonable, but that it should be located where it would be accessible to major concentrations of housing (existing or proposed).
- 4.11.10 In light of this, the potential options appear to be
1. Retain a major employment provision co-located with major housing
  2. Increase the size of the Airport employment provision as originally suggested in the supporting research, and do not include employment provision with major housing
  3. Increase the size of another strategic employment location
  4. Retain the provision at Rackheath
- 4.11.11 In defining the scope of the Reasonable Alternatives, it was concluded that the overall scale of additional employment land included in the remitted part of the plan remains appropriate and a corresponding provision should be included within proposals to address the Order of the High Court. It was further concluded that dispersal of the employment allocation would not be reasonable.
- 4.11.12 One important issue highlighted by several of the JCS objectives is access between housing and employment opportunities. Strategic employment locations are identified within the JCS at:
- Norwich city centre – additional office employment
  - Norwich Research Park – expansion, specifically for science park development
  - Airport area – new business park for a full range of employment uses, benefiting from an Airport location
  - Broadland Business Park – expansion for a range of employment uses
  - Wymondham – expansion for a range of employment uses
  - Hethel (A11 corridor) – expansion as a technology park
  - Longwater (Costessey) – no significant expansion proposed
- 4.11.13 All of these are identified as a strategic locations in the East of England Plan.
- 4.11.14 These are in addition to the remitted provision at Rackheath which, as noted above, was balanced by a reduction in the recommended scale of provision at the Airport.
- 4.11.15 A second important issue concerns the overall distribution of employment opportunities within the JCS area. The Arup/Oxford Economics report recommended the Airport as somewhere relatively accessible to a greater concentration of deprived wards, relating to the JCS. Objective 4 dealing with regeneration and using growth to bring benefits to deprived areas.

4.11.16 Long-Stratton is not identified as a strategic employment location in the adopted JCS. Adopted policies for the area promote local employment opportunities alongside the housing growth proposed which lies just above the small-scale strategic growth level.

[Discussion of potential reasonable alternatives for employment](#)

4.11.17 It is clear from the analysis in Appendix E [Norwich capacity] that the requirements of the adopted plan are challenging and it would not be reasonable to seek an additional 25 hectares of employment land in the city centre in light of this.

4.11.18 The adopted strategy also provides for around 15 hectares of new employment land at Wymondham to accompany the committed medium-scale strategic growth. The A11 corridor also includes nearby Hethel where a further 20 hectares of new employment land are provided for by the adopted JCS strategy. In light of the plan's objectives to balance housing and employment growth and minimise journey lengths, and in view of the limitations on residential growth here, it is judged that it would not be a reasonable alternative to further increase the provision in Wymondham/A.11 corridor

4.11.19 Norwich Research Park at Colney, close to the southwest corridor and, is a specifically intended to provide a "next generation" science park maximizing the commercial potential of the intellectual property emanating from the research and innovation taking place there. Its connections with the University of East Anglia and Norfolk and Norwich University Hospital are integral to these roles. There are significant undeveloped areas currently allocated and provision for a second phase subject to the satisfactory completion of the first phase. It is not considered a reasonable option to compromise the specialist nature of this facility.

4.11.20 This is reinforced by the medium scale growth committed in the south west at Cringleford and Hethersett.. Similarly, this location already has good access not only to NRP, but also to the A11 employment locations and if the city centre. However if this scale of housing growth were to be significantly expanded, it would be a reasonable alternative to transfer the employment provision of 25 hectares to the southwest, even though it would not be likely to offer easily accessible opportunities to those resident in deprived wards.

4.11.21 Longwater lies in the west location where small scale strategic growth is committed through the adopted policies of the JCS. There is an existing undeveloped employment allocation, and small scale additional employment allocation proposed within the established employment area in the preferred options stage of South Norfolk Council's site allocations document. One major constraint to larger scale provision remains the need to improve Longwater junction. In view of these considerations further expansion at Longwater is not considered to be a reasonable alternative.

4.11.22 There is provision for expansion at Broadland Business Park made through JCS policies which remain adopted. This is a strategic requirement and independent of any growth planned in the north east. Improvements to the Postwick junction are required, but funding for these has been agreed and planning permission exists. In light of the JCS objectives to link employment and housing, it would be a reasonable alternative to expand Broadland Business Park further if additional housing on a strategic scale were located here.

4.11.23 It would be reasonable to expand employment at the Airport as originally foreshadowed in the Arup/Oxford Economics research, although this would be likely to require completion of the NDR up to that point. Funding for the length of NDR in question has been agreed by the Department for Transport, although planning permission for the entire length of road has not yet been obtained. Subject to planning permission it is expected to be operational by 2017/18. This therefore remains a reasonable alternative judged against the JCS objectives include in the overall distribution of employment and the regeneration objective.

The employment provision at Rackheath was proposed because of its proximity to proposed housing, taking into account the JCS objectives. If strategic scale housing growth in this location were to remain in the proposals to address the High Court Order, it would be a reasonable alternative to retain the 25 hectare employment land provision.

**Stage 3(a)** concludes that a “reasonable alternative” must be able to :

1. Deliver 7,000 homes to 2026;
2. Contain no more than 7,000 homes in total in any individual or combination location; and,
3. Have the potential to deliver up to 10,000 homes beyond 2026 in order to guarantee the viability of a new secondary school.

Furthermore, in terms of employment the section concludes that:

4. Any proposal to reallocate the 25ha of employment land assigned to Rackheath in the remitted text to the Norwich City Area, along the Wymondham/A11 corridor, to Norwich Research Park or to Longwater is not a reasonable alternative.
5. It would be reasonable to consider reallocation to Cringleford/Hethersett if in connection with large scale strategic growth.
6. It would be reasonable to consider reallocation to Broadland Business Park or Norwich International Airport if significant development is not identified in the North-East Sector (Outside the NDR)
7. If significant development continues to be planned for the North-East Sector (Outside the NDR), vicinity of Rackheath, then it would be reasonable to retain the additional allocation at Rackheath Industrial Estate as set out in the remitted text.

### Stage 3(b): Adopted JCS policies and distribution of growth

**Stage 3(b)** explains the implications of the adopted JCS housing allocations when considering opportunities for additional strategic growth in the suitable locations, as identified in Stage 2.

- 4.11.24 In identifying reasonable alternatives, consideration also needs to be given to the non-remitted policies within the JCS and the resultant levels of growth which are thereby identified for specific locations within the Norwich Policy Area. In practical terms this means that where development is already allocated to a specific location this will need to be taken into account when considering whether it would be possible to distribute additional growth to that location and how much additional growth can be distributed to it.
- 4.11.25 Long Stratton provides an example to illustrate this point. The village has been evaluated as being suitable for Small and Medium scales of strategic growth, albeit limited to the lower levels of the Medium range (approximately 1,800 homes) as a result of waste water disposal constraints. The non-remitted policies of the Joint Core Strategy allocated 1,800 homes to Long Stratton. Because the existing allocation at Long Stratton already reaches the capacity of this location it would not be possible to consider options for the re-allocation of higher levels of strategic growth to this area.
- 4.11.26 Table 4.6 indicates the possible locations for the 7,000 homes on the basis of the analysis set out above.

Table 4.6: Growth Opportunities - where could the 7,000 homes potentially go?

Location	A			B	C	D		
	Identified scale of potential growth						Current strategic housing provision in the adopted JCS	Additional housing from small sites allowance <sup>13</sup>
	Small 1,000 to 1,500	Medium 1,500 to 3,000	Large 7,000 to 10,000			A - (B+C) = D		
North-East (Inside & Outside NDR)	x	x	✓	N/A	N/A	7,000 to 2026 10,000 overall		
North East (Inside NDR)	✓	x	✓	N/A	N/A	1,500 overall, or 7,000 to 2026 rising to 10,000 overall		
South-West Sector	✓	✓	✓	2,200	200	4,600 to 2026 rising to 7,800 overall		
West Sector	✓	x	x	1,000	500	0		
Long Stratton	✓	✓ (limited to 1,800) <sup>14</sup>	x	1,800	0	0		
Wymondham	✓	✓ (limited to 2,200) <sup>15</sup>	x	2,200	0	0		
North-West Sector	✓	x	x	N/A	N/A	1,500		

<sup>13</sup> The additional housing from the Small Sites Allowance has been rounded to the nearest 100 for the purposes of this Strategic assessment.

<sup>14</sup> The limit of potential development levels in Long Stratton is set by the expected maximum capacity for the disposal of Waste Water.

<sup>15</sup> The limits of the potential for the expansion of Wymondham High School, to which funding has already been provided, has limited the potential level of development in Wymondham.

**Stage 3(b)** concludes that, taking account of existing JCS allocations:

- 7,000 to 10,000 new homes can be accommodated in the North East location (Inside NDR) and North East Combination Location(Inside & Outside NDR)
- An additional 4,600 homes can be accommodated in the South West Location within the Plan Period.
- Small Scale Strategic Growth can be accommodated in the North West Location and the North East Location (Inside NDR)

#### 4.12 Stage 3c: The reasonable alternatives for SA testing

**Stage 3c** is the conclusion of the process, identifying the “reasonable alternatives” for Sustainability Appraisal testing

- 4.12.1 This section draws together the findings of the work on dispersal, location and scale needed to define reasonable alternatives to be subject to appraisal.
- 4.12.2 The work on the principle of dispersal has shown that in Norwich City and South Norfolk there is no opportunity for additional small scale sites allowances in the NPA. None of the resultant dispersal alternatives looked at in the Broadland NPA would fulfil the plan objectives and therefore there is no reasonable alternative based solely on dispersal. Analysis of total concentration, that is putting the 9,000 houses all in one location, is also not reasonable as it denies market choice and is not expected to be able to deliver the required numbers within the plan period.
- 4.12.3 The consideration of dispersal highlights that there are some advantages to the dispersal of some of the housing, allowing a choice of sites and ensuring sites can deliver early on in the plan period. Analysis indicates that dispersal of approximately 2,000 dwellings is the appropriate level and that all alternatives should have a small sites allowance on the Broadland part of the NPA of 2,000.
- 4.12.4 The reasonable alternatives for distributing the remaining 7,000 dwellings are shaped by the work on scale and location. The analysis carried out is summarised in the table below and based on more extensive work that is set out in Appendix L.
- 4.12.5 The adopted elements of the JCS in South Norfolk identify some growth in the short listed locations. It is beyond the scope of this work to consider alternatives that would lead to a reduction in these levels of growth. However, in considering what reasonable alternatives are, the analysis needs to consider the scope for additional growth at these locations.
- 4.12.6 Table 4.7 sets out the outcome of that analysis and identifies opportunities for distributing growth in appropriate locations taking account of the adopted parts of the JCS. These are relatively few.

Table 4.7: Opportunities for distributing 7,000 remitted dwellings

Location	Opportunity
North-East (Inside & Outside NDR)	7,000
North East (Inside NDR)	1,500 or 7,000
South-West Sector	4,600 (plus adopted 2,400 making 7,000 in total)
West Sector	500 (plus adopted 1,000 making 1,500 in total)
North-West Sector	1,500

- 4.12.7 The scale of growth analysis gives an indication as to the acceptability of alternatives for small, medium or large scale growth.

- 4.12.8 The table shows that to deliver 7,000 houses all reasonable alternatives will need to include one major growth location, with any remainder being picked up by small scale growth in other locations. As the only other locations which have been identified as suitable for large scale growth are the North East and South West this gives choices of:
- Growth focused on the North East
  - Growth focused on South West
- 4.12.9 The analysis has indicated that growth in the NE could be accommodated within the line of the NDR, albeit not without consequences, or distributed across the combined sectors of NE inside and outside. This gives two variations of growth focussed on the NE.
- 4.12.10 Assessment of the SW shows that it can only accommodate 4,600 of all the 7,000 dwellings within the plan period. The adopted JCS already identifies Cringleford and Hethersett that are both within the SW Sector for a combined total of 2,200 dwellings with an additional 200 proposed through South Norfolk's site allocations work. Evidence suggests that a single sector cannot deliver more than 7,000 dwellings in the plan period and therefore an alternative that focuses growth in the SW can only add a further 4,600 to that sector to avoid delivery issues. That leaves a balance of 2,400 to be accommodated and this would need to be in the Broadland part of the NPA.
- 4.12.11 All alternatives are in addition to 2,000 small sites allowance in the Broadland part of the NPA.

#### Employment

- 4.12.12 From the preceding stages, the reasonable alternatives for the 25 hectares of employment provision related to the reasonable alternatives for housing for testing through Sustainability-Appraisal can be summarised as:
- Alternative one (growth focused in NE, as in the remitted parts of the JCS) - include provision for additional 25 hectares of employment land within the northeast at Rackheath
  - Alternative two (growth focused in NE inside line of the NDR) – include provision for additional 25 hectares of employment land associated with the development of either at Broadland Business Park or at Norwich Airport)
  - Alternative three (growth focused in SW with the balance in the Broadland part of the NPA) – include an additional allocations of 25 hectares in the southwest, associated with the large-scale housing or increase the size of the strategic allocation at the Airport.

**Stage 3(c)** concludes there are three alternatives for further testing through Sustainability Appraisal:

**Alternative one - Growth focused in NE (as in the remitted parts of the JCS)**

- 7,000 in the combined NE (inside and outside) sector (rising to 10,000 beyond the plan period) including 25 hectares of employment land at Rackheath.

**Alternative two - Growth focused in NE inside the line of the NDR**

- 7,000 in NE (inside NDR) sector (rising to 10,000 beyond the plan period) including 25 hectares of employment land at Broadland Business Park or Norwich International Airport in addition to those in the adopted policies of the JCS.

**Alternative three - Growth focused in SW with the balance in the Broadland part of the NPA**

- 4,600 SW (making a total of 7,000 at this location in the plan period (potentially rising to 10,000 beyond) when combined with growth identified in the adopted JCS)
- 2,400 across the Broadland part of the NPA made up of two small scale locations of at least 1,000 each in North East sector (inside NDR) and North West Sector
- An additional 25 hectares of employment land in association with the large scale strategic housing development in the South West or at Norwich International Airport.



Figure 4.3: Housing distribution alternative one

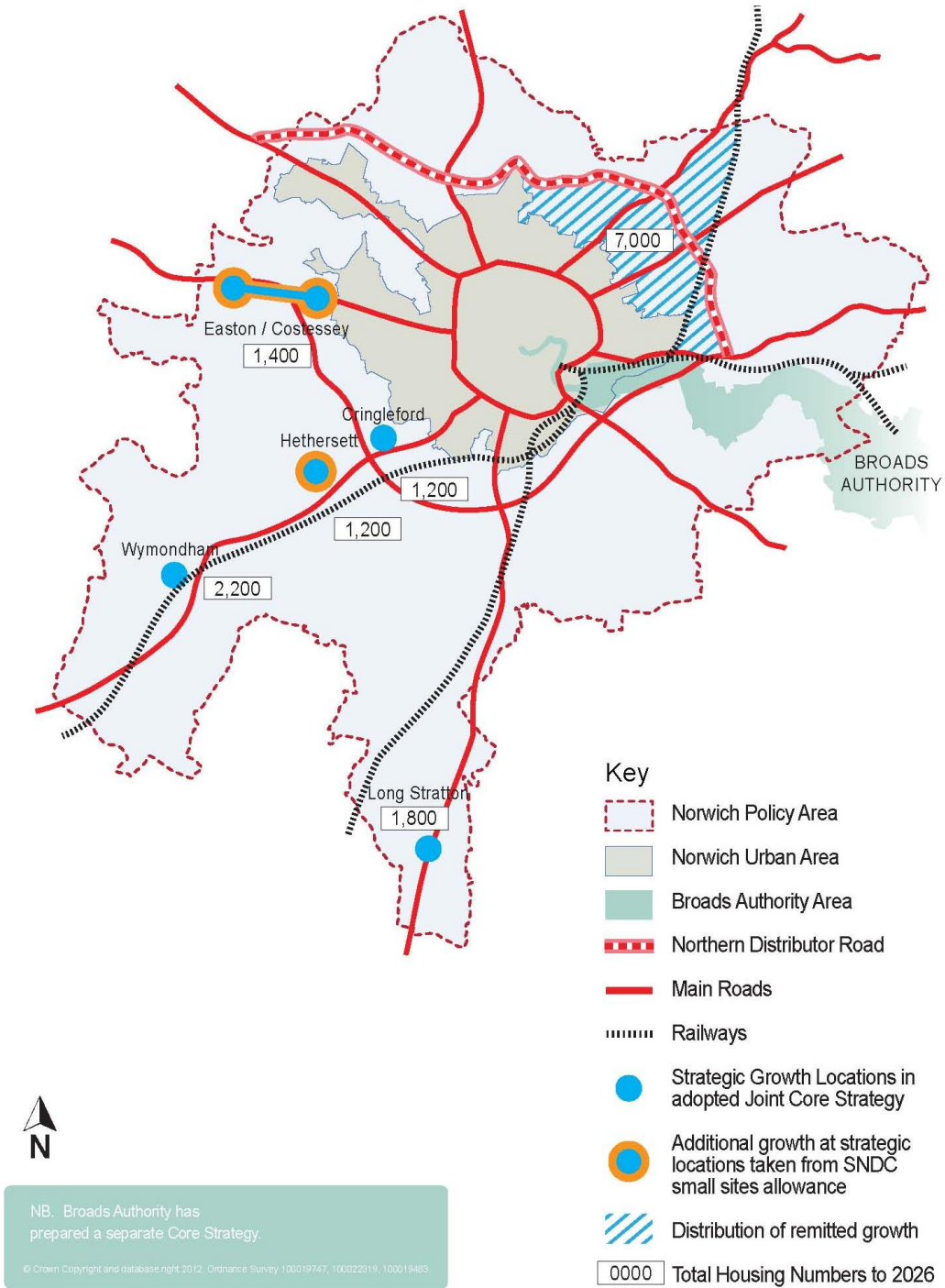


Figure 4.4: Housing distribution alternative two

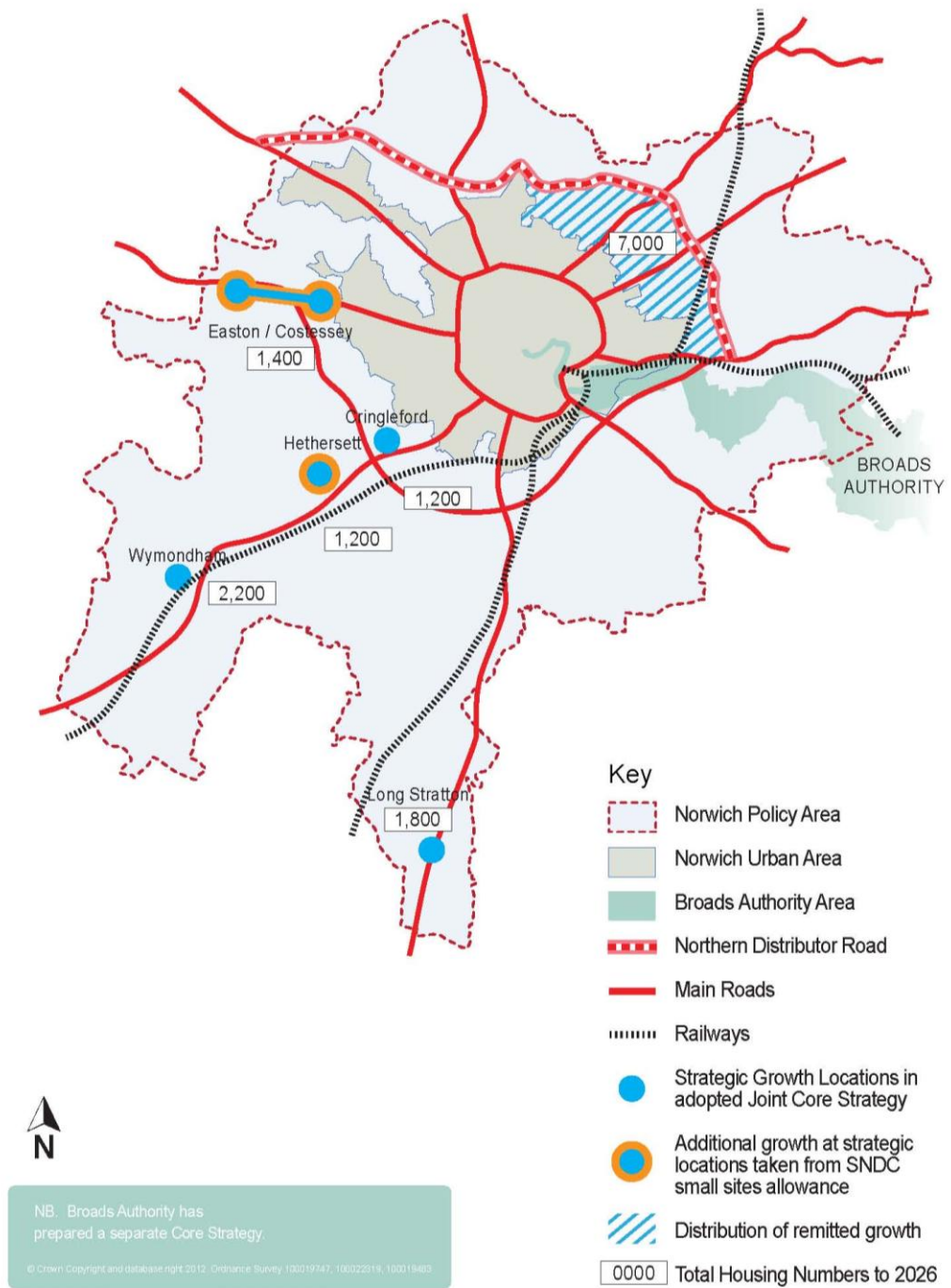
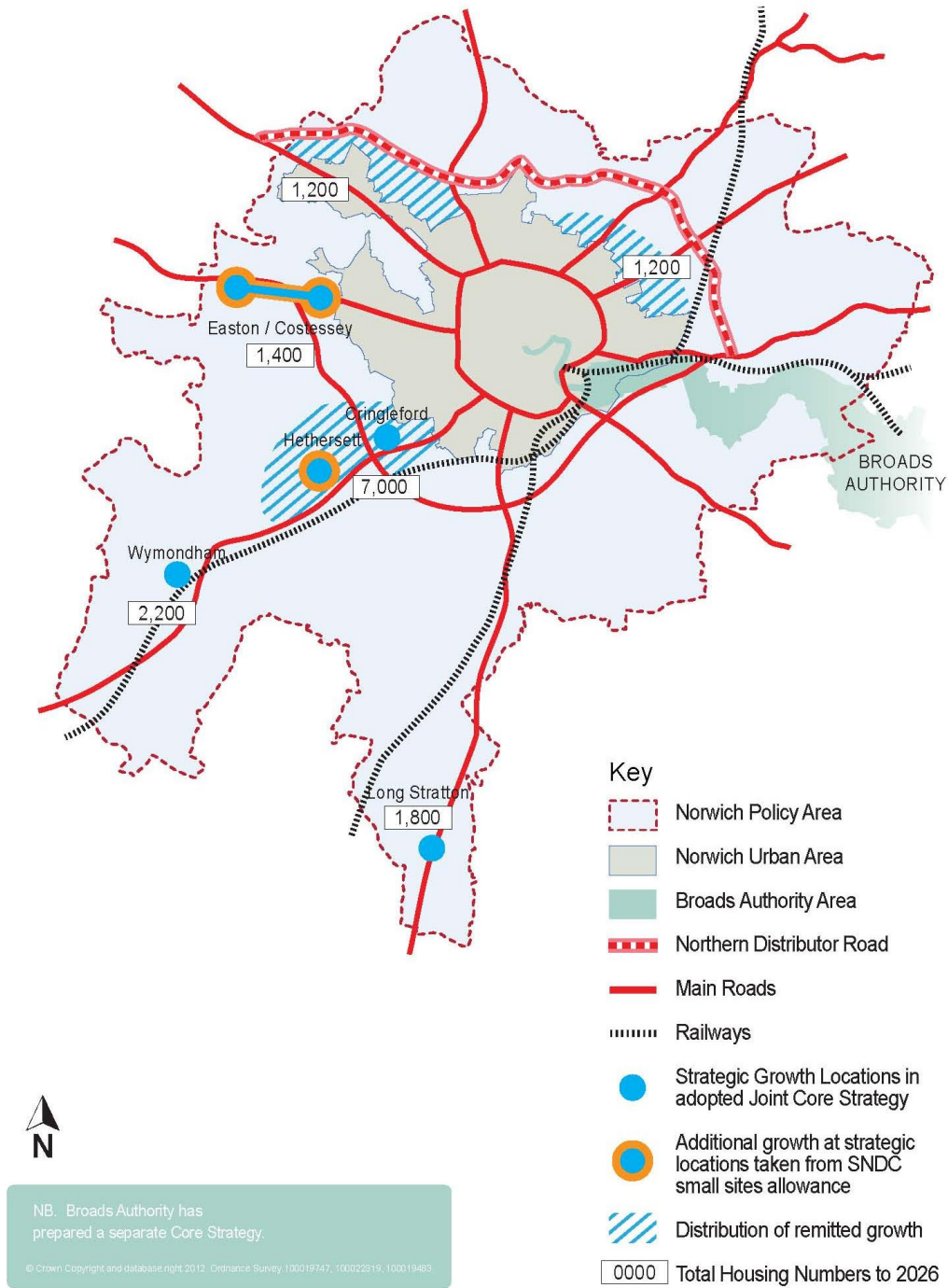


Figure 4.5: Housing distribution alternative three



## 5 HOW HAS THE APPRAISAL BEEN UNDERTAKEN?

*“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information”*

(SEA Directive Annex I(h))

- 5.1.1 Chapter 6 presents an appraisal of:
- the ‘reasonable alternatives’ discussed in Chapter 4; and
  - the Proposed Submission Content published for consultation in August 2012 (which remains unaltered for submission).
- 5.1.2 The appraisal seeks to identify ‘significant effects’ on the baseline / likely future baseline, drawing on the sustainability objectives identified at the end of Chapter 3 as a methodological framework.
- 5.1.3 Every effort has been made to predict effects accurately; however, predicting significant effects is inherently challenging given the high level nature of the alternatives / proposed policy approaches under consideration when preparing strategic plans of this nature.
- 5.1.4 Furthermore, the future baseline in the absence of the remitted text is difficult to firmly establish since a significant amount of new housing is likely to be delivered on the basis of speculative planning applications, the nature and location of which is impossible to foresee. For example, taking the issue of biodiversity, it is difficult to make robust and defensible assumptions regarding how many of the up to 9,000 homes, if any, might ultimately be located in areas where wildlife could be affected. What we *have* assumed is that, in the absence of strategic scale development, the areas under consideration would not be subject to new development of any kind. This assumption has assisted us in identifying the potential impacts of new development in each area on receptors such as biodiversity, flood risk, the landscape, the historic environment and human health. However, readers should be aware that, in practice, in the absence of specific planning policy governing the location of the 9,000 new homes it is quite possible that some of this development might ultimately be accommodated in the areas covered by the three reasonable alternatives.
- 5.1.5 Because of these inherent uncertainties there is a need to exercise caution when identifying significant effects. In light of this, where effects have been predicted this has been done so with an accompanying explanation of the assumptions made.<sup>16</sup> Furthermore, in many instances it has not been possible to predict significant effects, but it has been possible to comment on the relative merits of reasonable alternatives / performance of the preferred approach in more general terms.
- 5.1.6 It is important to note that the ‘significant effects’ have been predicted taking into account the criteria presented within Annex II of the SEA Directive.<sup>17</sup> So, for example, account has been taken of the probability, duration, frequency and reversibility of effects as far as possible. Cumulative effects have also been considered.<sup>18</sup> These significant effect ‘characteristics’ have been described within the appraisal as appropriate.

<sup>16</sup> As stated by Government Guidance (The Plan Making Manual, see <http://www.pas.gov.uk/pas/core/page.do?pagelid=156210>):

*“Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification.”*

<sup>17</sup> Directive 2001/42/EC on the assessment of the effects of certain plans and Programmes on the environment (the ‘SEA Directive’)

<sup>18</sup> In particular, there has been a need to take into account the effects of the Proposed Submission Content being implemented alongside the adopted JCS.

6

## WHAT ARE THE APPRAISAL FINDINGS AND RECOMMENDATIONS?

*“the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”*

(SEA Directive Annex I(f))

*“the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme”*

(SEA Directive Annex I(g))

### 6.1 Introduction

6.1.1 Set out below is:

- an appraisal of the ‘reasonable alternatives’ discussed in Chapter 4
- outline reasons for selecting the preferred alternative;
- an appraisal of the draft plan approach (i.e. the Proposed Submission Content published for consultation in August 2012);
- conclusions and summary recommendations in relation to the Proposed Submission Content; and
- clarification that, because no changes have been to the Proposed Submission Content, the appraisal findings have not been updated for the purposes of this (December 2012) SA Report.



## 6.2 Appraisal of reasonable alternatives

Table 6.1: Appraisal of reasonable alternatives

Table presenting an appraisal of the following alternative approaches:					
<ul style="list-style-type: none"> <li>(1) 7,000 (rising to 10,000 beyond the plan period) in the NE sector inside and outside the NDR</li> <li>(2) 7,000 (rising to 10,000 beyond the plan period) in the NE sector inside the NDR</li> <li>(3) Growth focussed in SW with the balance in the Broadland part of the NPA                             <ul style="list-style-type: none"> <li>• 4,600 in the SW (making a total of 7,000 at this location in the plan period (potentially rising to 10,000 beyond) when combined with growth identified in the adopted JCS)</li> <li>• 2,400 across the Broadland part of the NPA made up of two small scale locations of at least 1,000 each in North East sector (inside NDR) and North West Sector</li> </ul> </li> </ul>					
SA Objective	Discussion of <u>significant effects</u>		Summary of relative merits (darker blue = better)		
	(and discussion of <u>relative merits</u> in more general terms – see indented text)		Alt 1	Alt 2	Alt 3
ENV 1 To reduce the effect of traffic on the environment.	<p>All housing development, unless ‘car free’, will inevitably generate additional trips locally as new residents move into the area. The adopted JCS includes policies to promote non-car modes and reducing the need to travel, but does not require car free development (although the supporting text of Policy 1 does reference the potential for ‘car free’ development in ‘appropriate urban locations’). Development will therefore give rise to increased air and noise pollution, disruption to amenity and potential secondary health impacts <u>locally</u>; and as such, it is suggested that none of the alternatives are wholly in-line with this objective and <b>all alternatives lead to significant negative effects on the baseline.</b></p> <p><b>N.B.</b> Under a ‘business-as-usual’ scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in a dispersed fashion, which in turn would foster car dependency. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Although it is not possible to differentiate between the alternatives in terms of ‘significant effects’, there are important differences between them that can be noted:</p> <p>Focusing on <b>(1)</b> and <b>(2)</b>, the Norwich Area Transport Study suggests that the area inside the NDR is currently experiencing significant congestion as a result of lack of capacity on the roads in the north east quadrant of Norwich,</p>				



but that the NDR (as programmed for delivery) will ameliorate this. The effect of the NDR will also be to enable road capacity to be released for public transport improvements. This means that additional housing development in this area will be able to benefit from delivery of a Bus Rapid Transit (BRT) between the North East Sector and City Centre via the Salhouse / Gurney Road corridor. It is also important to note the fact that there is a choice of radials in the NE Inside sector which can accommodate any displaced traffic resulting from public transport prioritisation.

Finally, it is noted that the NE Inside sector is well connected to the Norwich Cycle Network and there are opportunities to extend it to the outside.

The above considerations mean that, under **(1)** and **(2)**, there will be considerable potential to avoid congestion and minimise the number of additional car trips that results from development.

There is little to differentiate **(1)** and **(2)**. However, **(1)** is likely to mean that a greater percentage of new residents live close to a BRT route. This is a result of the need to accommodate development away from the Salhouse Road/Gurney Road corridor in order to provide sufficient land for development under **(2)** and the fact that **(1)** would afford the opportunity to accommodate more new residents in close proximity to one particular radial. The NE Outside sector (alternative **1**) does also contain a train station at Salhouse which would afford a further opportunity for non-car based travel.

Focusing on **(3)**:

- In the SW sector there will be good potential to avoid congestion and minimise the number of additional car trips that results from development. This reflects that investment at the Thickthorn junction (A47) is a requirement of the adopted JCS, as is achievement of a BRT service.
- Small scale strategic development in the NE Sector would not enable delivery of a BRT route from here to the City Centre. However, there may be the potential for less fundamental improvements to bus routes (making use of the road capacity that will exist subsequent to the development of the NDR).
- The North West will be served by a BRT route. However, it is unlikely to provide the potential level of service that other BRT routes might provide in terms of frequency and speed due to restricted road capacity (the limited number of radial routes / opportunities to accommodate displaced traffic).
- The South West and the North East are well connected to the Norwich Cycle Network whereas the North West is less well linked (This part of National Cycle Route 1 is unpaved, unlit and predominantly suited to recreation as opposed to commuter cycling).

*In conclusion*

An overriding consideration is that under **(3)** growth allocated to areas (NE and NW sectors) will not be served by high quality BRT, whilst the entirety of development under **(1)** and **(2)** will be served by a high quality BRT. **(3)** therefore

	<p>performs relatively poorly in relation to this objective. <b>(1)</b> arguably performs better than <b>(2)</b> as a result of the potential for more new residents to have direct access to BRT and, to a lesser extent, the opportunity afforded by the presence of a railway station at Salhouse.</p>			
<p>ENV 2 To improve the quality of the water environment.</p>	<p>Water quality is a significant issue in the plan area and there is a need to deliver improvements to wastewater treatment works in order to ensure water quality in the future. All sectors under consideration (NE Inside and Outside NDR, NW and SW) are served by Whitlingham Wastewater Treatment Works (WwTW), which has capacity. For this reason, it is suggested that <b>none of the alternatives lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in areas where WwTW capacity would be stretched to the point where there was a risk of it being breached. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p><b>N.B.</b> There is also a need to give consideration to water resource availability. Specifically, it is known that interventions will need to be made to ensure that increased demand for water does not adversely affect flows in the Wensum SAC or other important river/wetland environments. This is considered further under ENV8, below.</p> <p>Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between them that can be noted. These relate primarily to the fact that some areas are subject to local sewer capacity issues.</p> <p><i>Focusing on (1) and (2):</i></p> <p>In the NE sector there are local sewerage constraints, but measures are being developed to address these. The water company and relevant environmental bodies are satisfied that development can be accommodated through measures in Anglian Water's Asset Management Plan (the Water Cycle Study provides further information and it is also important to note the Joint Position Statement prepared by Anglian Water, Natural England and the Environment Agency).</p> <p><i>Focusing on (3):</i></p> <ul style="list-style-type: none"> <li>In the SW sector, under the 'adopted JCS' scenario (and under alternative 1) there will need to be a significant upgrade to the sewer that follows the Yare Valley and links to Whitlingham WwTW. The nature of further upgrade required under <b>(3)</b> is likely to be incremental (as opposed to the North East where significant new sewerage</li> </ul>			

	<p>capacity will be needed from an early stage in any large-scale development).</p> <ul style="list-style-type: none"> <li>The small scales of strategic growth envisaged for the NE and NW sectors may render the delivery of additional sewerage infrastructure more challenging.</li> <li>Disposal of wastewater from the Taverham / Drayton area (NW sector) may require new sewerage to pump to Whitlingham (unless it can be satisfactorily routed back into the existing city sewerage system), which would be energy intensive given the distance.</li> </ul> <p><i>In conclusion</i></p> <p>WwTW capacity can be upgraded to cope with increased flows under all alternatives. However, it is apparent that delivering the necessary sewerage infrastructure would represent less of a challenge under <b>(1)</b> and <b>(2)</b>, and so it is suggested that these alternatives perform better against this objective.</p>			
<p>ENV 3 To improve environmental amenity, including air quality.</p>	<p>Given that development will lead to increased local car movements (see discussion under ENV1), it can be assumed that development will lower environmental amenity (including air quality) to some extent locally. However, given that none of the alternatives would be likely to increase car movements / decrease air quality within an area associated with existing identified problems (i.e. includes an Air Quality Management Area, AQMAs) it is suggested that <b>none of the alternatives lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in a dispersed fashion, which in turn would foster car dependency and could lead to increased traffic movements within AQMAs. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of 'significant effects', neither is it possible to conclude anything about the relative merits of the alternatives in more general terms. It might be that (3) has the greatest potential to result in worsened air quality (because it will lead to more movements by car), but it is not possible to conclude that air quality would be worsened to the extent where human health would be affected.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>ENV 4 To maintain and enhance biodiversity</p>	<p>It is assumed that growth on this scale will lead to direct effects on land that has some biodiversity importance, or land that contributes to the functioning of wider 'ecological networks'. There could also be some indirect effects associated with growth, such as through recreational use of important sites. As such, it is suggested that <b>all alternatives lead to significant negative effects on the baseline.</b></p>			

and geodiversity.

**N.B.** Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to important biodiversity sites (e.g. nationally and locally designated sites) or areas of greenspace that contribute to the functioning of the wider ecological network. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.

Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between them that can be noted:

*Focusing on (1):*

There will be the potential to 'masterplan' effective green infrastructure and, as part of this, it should be possible to create high quality habitat 'stepping stones' (potentially involving heathland re-creation) that would enhance the 'Mousehold Heath to Broads Green Infrastructure Priority Link'. Having said this, (1) would result in development occurring in relatively close proximity to the Broads. This has negative implications, although there is confidence (see the JCS Habitats Regulations Assessment) that suitable mitigation could be put in place by way of a non-developed 'buffer-zone'.

*Focusing on (2):*

A smaller site footprint, constrained by the NDR, would result in higher density development and less potential to implement effective green infrastructure. As well as reducing the potential to contribute to the Green Infrastructure Priority Link mentioned above, this would also mean that there would be greater pressure on the existing patches of ancient woodland (designated as County Wildlife Sites) that exist within the area.

*Focusing on (3):*

- The SW sector lies within a Green Infrastructure Priority Link and may be able to contribute towards the integrity of this.
- A lesser scale of development in the NE sector may reduce the potential to deliver the NE Priority Link.
- Sensitive river valleys are adjacent to the SW and NW sectors. In relation to the Wensum (which is the most sensitive, as reflected in its SAC status) development would probably be away from the valley, but there would be the potential to increase cross-valley car trips to Longwater on roads that cannot be improved (due to the environmental protection status of the valley). Having said this, the HRA process has shown that effects could be sufficiently mitigated. In relation to the River Yare corridor, it is not thought that large scale development in the SW sector would have negative implications.

	<p><i>In conclusion</i></p> <p>There is not a great deal to choose between the alternatives, but it is suggested that <b>(3)</b> performs best as it will lead to development that is less likely to impact on areas of biodiversity importance. Given the assumption that <b>(1)</b> will include effective green infrastructure, it is suggested that <b>(1)</b> performs better than <b>(2)</b>.</p>	
<p>ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<p>Although some of the new housing would be on previously developed land, much of it would be on greenfield land that currently contributes to local landscape character. As such, it is suggested that <b>all alternatives lead to significant negative effects on the baseline.</b></p> <p><b>N.B.</b> Under a ‘business-as-usual’ scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to important landscapes, heritage assets and areas of notable historic character. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Although it is not possible to differentiate between the alternatives in terms of ‘significant effects’, there are important differences between them that can be noted:</p> <p><i>Focusing on (1) and (2):</i></p> <p>The NE sectors are characterised by ‘Wooded Estatelands’ where particular sensitivities include the mosaic of parkland, arable field and woodlands and landscape setting of historic houses, halls, churches and the setting of villages and hamlets.</p> <p>Under <b>(1)</b> it would be possible to maintain important landscape assets though incorporating them as part of green infrastructure. Clearly, this Alternative would be expected to result in some development within the bounds of the former USSAF base at Rackheath, which has some heritage and cultural value, although it is not a site protected for as a result of any heritage status.</p> <p>Under <b>(2)</b> there would be a need to encroach less far into the countryside, and so landscape character will be affected across a smaller area. It is also important to note that development would be ‘contained’ within the NDR, and so there will be a sharp distinction between urban and rural. However, development will be at a higher density than under (1) and so there would be less potential to maintain landscape and heritage assets that fall within the footprint of the development.</p> <p><i>Focusing on (3):</i></p>	

	<p>The SW sector is characterised by ‘Tributary and Plateau Farmland’. Particular landscape sensitivities in the area include the potential for development to break up the skyline and intrude on the sense of openness. The potential for coalescence between settlements is also a concern. Although it is not thought that large scale strategic development in this sector would result in the absolute coalescence of Wymondham and Hethersett, it would be likely to cause the coalescence of Hethersett and Little Melton. Development would also likely encroach on the Norwich Southern Bypass Landscape Protection Zone.</p> <p>The NW sector is characterised by the Wensum river valley along its southern edge and by wooded estatelands and woodland heath mosaic land types. Particular sensitivities include the mature landscape including large woodland blocks, the landscape setting of Norwich and villages which is created, the intimacy, tranquillity and natural meandering nature of the river valley. Small Scale Strategic development in this sector is likely to further consolidate development along the fringes of the existing settlements along the A1067. This would lead to a reduction in separation between settlements, and would extend into existing open countryside.</p> <p><i>In conclusion</i></p> <p>There is not a great deal to choose between the alternatives, but it is suggested that <b>(2)</b> performs best because it would result in development that is relatively self contained.</p>			
<p>ENV 6 To adapt to and mitigate against the impacts of climate change.</p>	<p>A key ‘climate change mitigation’ concern relates to the degree to which the alternative approaches support efforts to reduce car dependency / bring about a modal shift to public transport, less polluting forms of private transport and walking/cycling. As discussed under ENV1, alternative (3) does not support the objective of minimising car dependency. However, it is not possible to conclude that this translates to significant negative effects in terms of climate change mitigation.</p> <p>Another consideration relates to the degree to which community level low carbon energy, in particular from Combined Heat and Power (CHP) systems, is supported. The 2009 Greater Norwich JCS Sustainable Energy Study identified that development of at a scale of roughly 500 units (and a density of 50 units per hectare) is necessary in order to support CHP. All of the developments promoted under the various alternatives would be of a scale well beyond this, and so it is suggested that <b>all alternatives lead to significant positive effects on the baseline</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion, and there is less opportunity to design-in CHP.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of ‘significant effects’, neither is it possible to conclude anything about the relative merits of the alternatives in more general terms. .</p> <p><b>N.B.</b> In terms of climate change adaptation, the key consideration relating to the growth strategy relates to flood risk. This is discussed below, under ENV7.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>



<p>ENV 7 To avoid, reduce and manage flood risk.</p>	<p>It is expected that all three of the alternatives would lead to development that is able to avoid flood risk zones, and there is no evidence to suggest that any would result in increases to offsite, downstream flood risk. As such, it is suggested that <b>none of the alternatives lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to flood risk. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of 'significant effects', neither is it possible to conclude anything about the relative merits of the alternatives in more general terms. The following points are, however, noted:</p> <ul style="list-style-type: none"> <li>• In the NE sectors there is no significant risk of fluvial flooding.</li> <li>• In the NW sector there is no significant risk of fluvial flooding though the emerging Norwich Surface Water Management Plan identifies that there are surface water flooding issues in Drayton. It is noted that development would have to comply with the adopted JCS policy on Sustainable Drainage Systems.</li> <li>• In the SW sector there is no significant risk of fluvial flooding.</li> </ul>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>ENV 8 To provide for sustainable use and sources of water supply.</p>	<p>A key issue for the JCS relates to the need for intervention to allow for the sustainability reduction of abstraction at Costessey. However, it is not clear that any of the alternative spatial approaches to growth under consideration here have implications in terms of this issue, or any other strategic water resource issue. As such, it is suggested that <b>none of the alternatives lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where water is extracted from sensitive groundwater reservoirs. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of 'significant effects', neither is it possible to conclude anything about the relative merits of the alternatives in more general terms</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>ENV 9 To make the best</p>	<p>All of the alternatives would predominantly involve development of greenfield land. Also, whilst the agricultural land lost under all alternatives would be predominantly grade 3 (i.e. lower quality), it is anticipated that all would lead to the loss of some</p>	<p></p>	<p></p>	<p></p>

<p>use of resources, including land and energy and to minimise waste production.</p>	<p>grade 2 agricultural land. As such, it is suggested that <b>all alternatives lead to significant negative effects.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located predominantly on higher value greenfield land. This could lead to an argument that the effects of the alternatives are positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between them that can be noted:</p> <ul style="list-style-type: none"> <li>• Development focused inside the NDR under <b>(2)</b> would be spread over a smaller area, and so it could be argued that the amount of land-take involved would be less. However, it is not clear that this would be the case. There is no assumption that (2) would involve development at a higher density <i>per se</i>; rather it is assumed that development would involve less land within the site footprint being given over to green infrastructure.</li> </ul> <p><i>In conclusion</i></p> <p><b>(2)</b> perhaps performs relatively well, but this conclusion is debatable (see discussion above).</p>	
<p>SOC 1 To reduce poverty and social exclusion.</p>	<p>Development in the right location has the potential to stimulate or support the regeneration of deprived areas. None of these proposed spatial approaches to growth would directly support regeneration priorities given that they do not contain, nor are they adjacent to, priority areas. As such, it is suggested that <b>none of the alternatives lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in such a way that the result is to directly support regeneration in relatively deprived areas. This could lead to an argument that the effects of the alternatives are negative with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between. In particular, it is notable that development under <b>(1)</b> and <b>(2)</b> would enable a BRT service that would serve the Heartsease Estate (one of the most deprived parts of Norwich) which in turn would lead to better access to employment locations and the City Centre. Heartsease residents will also have better access to jobs and services in the growth area.</p>	

SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.

All three alternatives would result in a considerable and similar amount of large scale development coming forward within the NPA. It can be assumed that large scale developments will be delivered as mixed and inclusive communities that support a sense of community and enable individual well-being. In particular, large scale developments will include a range of community services and facilities (including health facilities) within walking distance and will be masterplanned with green infrastructure in mind.

All alternatives would also result in small to medium scale growth (under (1) and (2) there would be medium scale growth in the SW, whilst under (3) there would be small scale growth in the NE and NW), as part of which it cannot be assumed that there will be delivery of services and facilities. As such, it is important to ensure that capacity exists locally that can serve incoming residents. From an examination of the locations of small scale development that would come forward under the various alternatives it is not thought that there will be any major problems. Specifically:

- Under (3) - Within the NE sector 1,000 homes could be accommodated with fairly good access to services and facilities given that there are two existing district centres within the NE urban fringe and one potential centre. These all have a large anchor food store with a range services and facilities including GPs and Dentists. Similarly, in the NW there is a relatively wide range of services and facilities within existing settlements (Hellesdon, Drayton & Taverham).
- Under (1) and (2) – Medium scale strategic growth in the SW sector (1,200 homes at Cringleford and 1,000 homes at Heathersett) would have access to some existing services in Hetherset. Cringleford also has good access to the services in nearby in Eaton. Higher order services within the City Centre are accessible by good public transport links and the proposed BRT.

As such, it is suggested that **all alternatives lead to significant positive effects**. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion, and there is less opportunity to include a range of community services and facilities etc.

Although it is not possible to differentiate between the alternatives in terms of ‘significant effects’, there are important differences between them that can be noted:

In terms of the location of large scale strategic development, the following is worth noting:

- **(1)** might be seen as preferable to **(2)** given that it would lead to services and facilities within the new large scale strategic development that are more accessible to those who live in the rural parts of Broadland district, to North East of Norwich.
- **(1)** and **(2)** would increase accessibility to services and facilities for residents of Heartsease (one of the most deprived parts of Norwich), whilst neighbourhoods in the vicinity of **(3)** are relatively affluent.

	<p>Also, in respect to ‘access to countryside’, it is notable that:</p> <ul style="list-style-type: none"> <li>• <b>(1)</b> has good access to accessible countryside and Mousehold Heath</li> <li>• <b>(2)</b> has good access to Mousehold Heath. In terms of access to the countryside, the NDR will act as something of a barrier although measures would put in place to increase permeability</li> <li>• <b>(3)</b> has good access to the countryside.</li> </ul> <p>Another consideration relates to access to the Norwich Cycle Network. In this respect, <b>(1)</b> and <b>(2)</b> are particularly well connected to the Norwich Cycle Network and would allow good opportunity to reach the City Centre and major employment locations. The SW sector also has a cycle connection to Norwich, however the sector is further away from the city centre and required cyclists to cross a junction of the southern bypass at Thickthorn, which is not ideal.</p> <p><i>In conclusion</i></p> <p><b>(1)</b> and <b>(2)</b> perform well relative to <b>(3)</b> because they would support increased accessibility to services and facilities for residents of Heartsease (one of the most deprived parts of Norwich); and because the NE Sector is particularly well connected to the Norwich Cycle Network. <b>(1)</b> performs well relative to <b>(2)</b> because it might allow better access to the countryside / high quality greenspace.</p>			
<p>SOC 3 To improve education and skills.</p>	<p>All three alternatives would result in a similar mix of large scale and small scale development coming forward within the NPA. Under all alternatives large scale developments would come forward that would enable delivery of a new secondary school.</p> <p>Focusing on the small scale growth locations that could come forward under the various alternatives:</p> <ul style="list-style-type: none"> <li>• The NE Inside has a choice of accessible high schools that have some limited capacity and scope for extension which may be sufficient to serve this scale of growth.</li> <li>• In the NW sector, high schools have some capacity.</li> <li>• In the SW sector, Hethersett High School has the capacity to expand provided adjacent land can be made available to enlarge the site.</li> </ul> <p>As such, it is suggested that <b>all alternatives lead to significant positive effects</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion resulting in less opportunity to coordinate development with school capacity.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of ‘significant effects’, neither is it possible to conclude anything about the relative merits of the alternatives in more general terms.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

<p>SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.</p>	<p>In theory, all of the alternative spatial approaches to distributing growth would result in the potential to deliver affordable housing to the same extent, and there is no evidence to suggest housing need is greater within any of the sectors under consideration. As such, <b>it is not suggested that any of the alternatives result in significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in such a way that the result is to provide housing in parts of the NPA where there is a particularly high need. This could lead to an argument that the effects of the alternatives are negative with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between them that can be noted:</p> <p>There is a need to give consideration to the issue of deliverability. In this respect, it is considered that <b>(1)</b> gives that greatest degree of confidence over deliverability as a consequence of having a range of potential development centres and there being a lack of direct competition from other nearby strategic growth locations. There is less confidence surrounding <b>(2)</b> as a consequence of there being a more limited range of potential development centres, thereby reducing flexibility. However, it does again benefit from there being a lack of competition from nearby strategic growth locations. There is least confidence in <b>(3)</b>, this a result of there being a limited range of potential development centres and most importantly the strong competition that is likely to result from the proximity of the sector to other strategic growth locations.</p>			
<p>SOC 5 To build community identity, improve social welfare, and reduce crime and anti-social activity.</p>	<p>All three alternatives would result in a considerable (and similar) amount of large scale development coming forward within the NPA. It can be assumed that large scale developments will be delivered as mixed and inclusive communities that support a sense of community and enable individual well-being.</p> <p>All alternatives would also result in small – medium scale growth, as part of which it can be more of a challenge to build community identity. However, it is not thought that any of the locations for small/medium scale growth would pose any particular problems.</p> <p>As such, it is suggested that <b>all alternatives lead to significant positive effects.</b> This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion resulting in less opportunity to deliver mixed and inclusive communities.</p> <p>Just as it is not possible to differentiate between the alternatives in terms of 'significant effects', neither is it possible to</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

	conclude anything about the relative merits of the alternatives in more general terms.			
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	<p>It is, of course, the case that large-scale development offers the best potential to incorporate new employment alongside housing. As discussed above, all three alternatives would result in a considerable (and similar) amount of large scale development coming forward within the NPA.</p> <p>All alternatives would also result in development focused primarily at areas where there is good access to major employment locations. As such, it is suggested that <b>all alternatives lead to significant positive effects</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal resulting in less opportunity to ensure development in close proximity to employment.</p> <p>Although it is not possible to differentiate between the alternatives in terms of 'significant effects', there are important differences between them that can be noted:</p> <ul style="list-style-type: none"> <li>• <b>(1)</b> and <b>(2)</b> would focus growth to the NE where there is excellent access to large employment locations (as well as employment in the City Centre). Specifically, Broadland Business Park is a strategic employment location within the sector, which has capacity to grow. The sector is also adjacent to Norwich Airport, another strategic employment area with capacity to grow. Local employment at Salhouse Road and Sprowston Retail Park indicate some additional prospect for local employment growth in the sector.</li> <li>• In terms of <b>(3)</b>, the SW sector is easily accessible to the Norwich Research Park and City Centre and strategic employment at Wymondham and Longwater can also be accessed. However, the NW sector is not well related to a choice of major employment areas. The parts of the sector which lie nearer the city are relatively close to Norwich Airport but no sites have been promoted for development on the edge of Hellesdon, meaning that any development is more likely to be as extensions to Drayton and Taverham and as such further from major employment areas.</li> </ul> <p><i>In conclusion</i></p> <p>(3) performs less well because the SW sector, although well related to major employment locations, is not as well related as the NE sector (which would see the focus of growth under (1) and (2)); and because the NW sector is not well related to major employment locations.</p>			
SOC 7 To improve the quality of where people	It is thought that all alternatives would involve development of areas that are currently of a suitably high environmental quality, and where it will be possible to create high quality developments. This is an important consideration. Another important consideration relates to the effect that development will have on 'the quality of where people live' as perceived by existing residents / residents of adjacent areas. Many people may well feel that development will lead to reduced 'quality'; however,	N/A	N/A	N/A



live.	<p>others will welcome the benefits that development can bring. Overall, <b>it is not possible to conclude that there will be significant effects on the baseline.</b></p> <p>Just as it is not possible to differentiate between the alternatives in terms of 'significant effects', neither is it possible to conclude anything about the relative merits of the alternatives in more general terms.</p>			
SOC 8 To improve accessibility to essential services, facilities and jobs.	<p>It is suggested that <b>all alternatives lead to significant positive effects.</b> Please refer to discussion of access to services and facilities under SOC2 and access to jobs under SOC6.</p>			
EC 1 To encourage sustained economic growth.	<p><b>It is not suggested that any of the alternatives result in significant effects on the baseline.</b></p> <p>Focusing on the relative merits of alternatives, it is notable that:</p> <ul style="list-style-type: none"> <li>As described under SOC6, all alternatives would result in housing development that would place new residents in close proximity to major employment locations, but it is (1) and (2) that would result in the greatest benefits.</li> </ul>			
EC 2 To encourage and accommodate both indigenous and inward investment.	<p><b>It is not suggested that any of the alternatives result in significant effects on the baseline.</b></p> <p>Focusing on the relative merits of alternatives, it is notable that:</p> <ul style="list-style-type: none"> <li>As described under SOC6, all alternatives would result in housing development that would place new residents in close proximity to major employment locations, but it is (1) and (2) that would result in the greatest benefits.</li> <li>It is not thought that any of the alternatives would result in implications for the issue of rural diversification.</li> </ul>			
EC 3 To encourage efficient patterns of movement in	<p><b>It is not suggested that any of the alternatives result in significant effects on the baseline.</b></p> <p>Focusing on the relative merits of alternatives, it is notable that:</p> <ul style="list-style-type: none"> <li>As described under SOC6, all alternatives would result in housing development that would place new residents in close proximity to major employment locations, but it is (1) and (2) that would result in the greatest benefits.</li> </ul>			

support of economic growth.				
EC 4 To improve the social and environmental performance of the economy.	<p><b>It is not suggested that any of the alternatives result in significant effects on the baseline.</b></p> <p>Focusing on the relative merits of alternatives, it is notable that:</p> <ul style="list-style-type: none"> <li>As described under SOC6, all alternatives would result in housing development that would place new residents in close proximity to major employment locations, but it is (1) and (2) that would result in the greatest benefits.</li> </ul>			

**Appraisal summary**

The appraisal has highlighted the potential for the alternatives to result in a range of significant effects, both positive and negative, on aspects of the sustainability baseline. Negative effects relate to ENV1 (reduce the effect of traffic on the environment), ENV4 (maintain and enhance biodiversity...), ENV5 (maintain and enhance the quality of landscapes, townscapes and the historic environment), and ENV9 (make the best use of resources, including land...); whilst positive effects relate to ENV6 (adapt to and mitigate against the impacts of climate change), and a range of 'social' sustainability issues. It will be important that the potential to mitigate these effects through policy is given careful consideration.

It has not been possible to differentiate between the alternatives in terms of 'significant effects' (i.e. in terms of no sustainability issue has it been possible to say that one alternative will result in significant effects on the baseline, whilst another will not); however, it has been possible to highlight the relative performance of alternatives in more general terms (drawing on understanding of the sustainability baseline). The following is a summary of key points -

- In terms of supporting a move away from car dependency / a move towards use of public transport - an overriding consideration is that under **(3)** growth allocated to areas (NE and NW sectors) will not be served by high quality BRT, whilst the entirety of development under **(1)** and **(2)** will be served by a high quality BRT. Alternative **(3)** therefore performs relatively poorly in relation to this objective. There is little to differentiate **(1)** and **(2)**, although **(1)** is likely to mean that a greater percentage of new residents live close to a BRT route.
- In terms of supporting a move away from car dependency / a move towards cycling - it is noted that the NE Inside sector is well connected to the Norwich Cycle Network and there are opportunities to extend it to the outside. **(1)** and **(2)** therefore perform well. **(3)** performs less well because the part of National Cycle Route 1 that passes through the area is unpaved, unlit and predominantly suited to recreation as opposed to commuter cycling; and the SW sector is further away from the city centre and the cycle connection requires cyclists to cross a junction of the southern bypass at Thickthorn, which is not ideal.
- In terms of biodiversity - there is not a great deal to choose between the alternatives, but it is suggested that **(3)** performs best as it will lead to development that is less likely to impact on areas of biodiversity importance. Given the assumption that **(1)** will include effective green infrastructure, it is suggested that **(1)**

performs better than **(2)**.

- In terms of 'landscape' issues - there is not a great deal to choose between the alternatives, but it is suggested that **(2)** performs best because it would result in development that is relatively self contained.
- In terms of 'the need to make the best use of resources, including land' - **(2)** would involve development spread over a smaller area, and so it could be argued that the amount of land-take involved would be less. However, it is not clear that this would be the case. There is no assumption that **(2)** would involve development at a higher density per se; rather it is assumed that development would involve less land within the site footprint being given over to green infrastructure.
- In terms of the need to support regeneration in Norwich, development focused in the NE Sector under **(1)** and **(2)** would enable a BRT service that would serve the Heartsease Estate (one of the most deprived parts of Norwich.) enabling better access to employment locations, employment and services in the growth area, and the City Centre; whilst the SE sector (where development would be focused under **(3)**) is adjacent to a more affluent part of Norwich.
- In terms of 'the need to provide the opportunity to live in a decent, suitable and affordable home' it is important to note that **(2)** and **(3)** could result in 'deliverability' challenges that slow the rate at which housing comes forward.
- In terms of access to employment / supporting growth at major employment locations - **(3)** performs less well because the SW sector, although well related to major employment locations, is not as well related as the NE sector (which would see the focus of growth under **(1)** and **(2)**); and because the NW sector (where there would be small scale strategic growth under **(3)**) is not well related to major employment locations.

#### Overall conclusion on relative merits

In **environmental terms**, the three alternatives are fairly finely balanced. With regards to Alternative **(1)**, development would occur in relatively close proximity to the Broads with potentially adverse implications; but at the same time there would be the potential to design-in green infrastructure in such a way that the Mousehold Heath to Broads Green Infrastructure Priority Link is enhanced. Furthermore, the Habitats Regulations Assessment (HRA) expresses confidence that suitable mitigation can be put in place in the form of an undeveloped 'buffer zone' to ensure that **(1)** would not result in significant effects on the Broads. Alternative **(2)** is similar in many respects to **(1)** but would necessitate a more intense form of development given the smaller site footprint. The intense nature of the development would make developing an effective green infrastructure more of a challenge and so could lead to adverse impacts on wildlife, landscape and historic environment features. The benefit of **(2)** relative to **(1)** is that development would not extend so close to the Broads. In terms of biodiversity, Alternative **(3)** is less likely to impact on areas of biodiversity importance, but would probably mean that some opportunities to enhance the Mousehold Heath to Broads Green Infrastructure Priority Link are foregone. Alternative **(3)** would also encroach on the Norwich Southern Bypass Landscape Protection Zone.

With respect to transport and its effects, Alternatives **(1)** and **(2)** are considered more sustainable since they would be likely to support public transport improvements in the form of high quality BRT in the north eastern part of the urban area with commensurate benefits in terms of air quality, greenhouse gas emissions (responsible for climate change) amenity and health. While the SW sector would be served by a similar level of BRT under alternative **(3)**, the strategic scale growth in the NE and NW would not be served by high quality BRT. Alternative **(3)** therefore performs relatively poorly in transport terms compared with Alternatives **(1)** and **(2)**. There is little to differentiate **(1)** and **(2)**, although **(1)** is likely to mean that a greater percentage of new residents live close to a BRT route.

In **social terms**, development in the NE under Alternatives **(1)** and **(2)** has the capacity to support regeneration in Norwich since development would facilitate the development of high quality BRT that would serve the Heartsease Estate, one of the most deprived parts of Norwich. This would facilitate better access for people living on the Estate to employment opportunities and other services provided in the City Centre (as well as in the growth area). Development in the NE would therefore allow poorer parts of Norwich to share in some of the benefits of new development. Although much needed new housing would be provided under all three alternatives, it is important to note that Alternatives **(2)** and **(3)** could lead to challenges in delivering this at the rate required to combat housing need. Alternative **(1)** is therefore judged to perform best in social terms.

In **economic terms**, all alternatives are considered likely to support the economic well-being of the area and all would support the provision of employment opportunities alongside new housing. Development in the NE under Alternatives **(1)** and **(2)** would be more likely to result in employment opportunities close to an existing area of relative deprivation (see above) and could therefore have regeneration benefits. Although development in the SW would be well related to major employment locations, the NE is better located and development in the NW under Alternative **(3)** is not well-related to major employment locations. Alternatives **(1)** and **(2)** are therefore considered to perform better than Alternative **(3)**.

### 6.3 Selection of the most appropriate alternative

6.3.1 Between 25th July and 2nd August 2012 a series of Council meetings were held to debate the merits of the three reasonable alternatives and make the choice as to the most appropriate alternative to take forward for public consultation. The papers for the meetings are listed in Appendix O and included the draft SA Report as it stood on 19 July 2012. At this point the SA Report was not finalised and awaited a decision from the three LPAs on which of the three reasonable alternatives to select. The draft SA Report and particularly Table 6.2 provided a comparable, i.e. equally detailed, assessment of the three reasonable alternatives to help guide members' choice. This follows EU guidance which states "*The essential thing is that the likely significant effects of the plan or programme and the alternatives are identified, described and evaluated in a comparable way*". Moreover, this assessment was done to a level of detail sufficient to inform member decision-making.

6.3.2 The details of the meetings were as follows:

- Broadland - 2 August 2012
- Norwich City - 25 July 2012
- South Norfolk - 30 July 2012

6.3.3 At the meetings, all three Local Planning Authorities determined that reasonable alternative one was the most appropriate option to take forward for Proposed Submission Publication.<sup>19</sup> The rationale for the choice of reasonable alternative one and the reasons for rejecting alternatives two and three are set out in section 6.4 below.

#### Reasons for the choice of the most appropriate alternative

6.3.4 SA is only one source of evidence for decision-making; this reflects Article 8 of the SEA Directive which states that the findings of the assessment must be 'taken into account' during preparation of the plan or programme. Other considerations to be taken into account include the deliverability of new development to comply with soundness requirements and the potential to provide new homes with the necessary services. Notwithstanding this, the choice of alternative one was supported through the SA.

6.3.5 An assessment of the three reasonable alternatives was set out in the GNDP Board report of 19th July 2012. This also formed the basis for discussion at the subsequent Council meetings. The report identified alternatives one and two as similar in many aspects. Alternative one was identified as the most appropriate option, with significant issues relating to deliverability and design quality counting against alternative two. Alternative three was clearly the weakest reasonable alternative.

#### Reasons for rejecting alternative three

Alternative three was identified as the weakest of the reasonable alternatives as:

- It is uncertain that it could deliver the required growth within the plan period. By requiring additional development in existing strategic growth locations, it introduces the risk that there will not be sufficient focal points of development to give market choice and enable rates of delivery.
- It would have significant impacts on the character and form of the settlements on the A11 corridor in the NPA.

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<sup>19</sup> Under Regulation 19 of the Town and Country Planning (Local Planning) Regulations 2012

- The growth that would be left in the Broadland part of the NPA would support some enhanced public transport but would not sustain Bus Rapid Transport (BRT) vision and the spread will not enable investment to be focussed on one bus corridor.
- Whilst alternative 3 is unlikely to impact on areas of biodiversity importance, it would provide limited opportunities for enhancement of links.

*Reasons for rejecting alternative two*

Both alternatives one and two are urban extensions and benefit from proximity to employment areas and good public transport access to the city centre. They can also take advantage of the benefits to the transport network brought by the Norwich Area Transportation Strategy (NATS) and the NDR.

Alternative two would require a lesser land take than alternative one and would avoid issues of severance potentially created by the NDR.

However, the issues it raises means that it is not considered to be the most appropriate option:

- The scale of growth would require a more intensive form of development. This type of intensive development would have negative impacts in terms of landscape setting, urban form and amenity.
- Consequently the potential to improve Green Infrastructure Links from Mousehold to the Broads is limited as alternative two would require a more intense form of development which would pose more of a threat to existing environment assets in the area and provide fewer opportunities to enhance green infrastructure linkages.
- The overall shape of the growth location would be dictated by its physical limits and internal constraints. The resultant spread of development would be likely to take the form of a crescent shape that does not provide clear focus for development of BRT.
- Alternative two would be less likely to meet the adopted plan objectives as it would be less likely to deliver to the planned trajectory. This results from there only being two realistic focuses for development, around the North Walsham and Salhouse Roads.

*Reasons for selecting alternative one*

Alternative one was identified as the most appropriate option as:

- It offers greater potential for a high proportion of development to be very well related to the BRT corridors. This maximises the chances of future residents using sustainable transport modes.
- Deliverability is improved by providing three main focuses of development. This will provide the widest choice and variety of development sites. This is likely to lead to more favourable local market conditions, maximising the opportunity to deliver housing, including affordable housing.
- In design terms, it offers more scope for creating places that function better, relate well to both open space and transport corridors and allow the scope for quality design creating a sense of place and character.
- It overcomes some the disadvantages that have been shown to arise from Alternative two. The development form can be better planned and will not be compromised by the availability of developable land. Green spaces can be better planned to link environmental assets in to green corridors.
- Whilst alternative one brings the strategic growth closer to the Broads, this can be mitigated by the creation of a buffer zone within the growth location between development and the Broads, as required by remitted text policy.



As a consequence, members of the three Councils resolved to choose alternative 1 as the most appropriate option.

#### **6.4 Appraisal of the draft plan (i.e. Proposed Submission Content)**

- 6.4.1 Having resolved that reasonable alternative one was the most appropriate option, Members gave the go ahead to proceed on that basis and finalise the Proposed Submission Content and SA Report for consultation. Finalising the SA Report primarily involved presenting an appraisal of the draft plan (which in this case is the Proposed Submission Content) and suggesting measures for mitigating and monitoring any significant effects highlighted.
- 6.4.2 Table 6.2 presents the appraisal of the Proposed Submission Content. Table 6.3 then takes the opportunity to reiterate and, in some cases, elaborate on the 'characteristics' of effects described in Table 6.2.

Table 6.2: Appraisal of the draft plan (i.e. the Proposed Submission Content)

SA Objective	Discussion of significant effects (and effects in more general terms)
<p>ENV 1 To reduce the effect of traffic on the environment.</p>	<p>All housing development, unless 'car free', will inevitably generate additional trips locally as new residents move into the area. The adopted JCS includes policies to promote non-car modes and reducing the need to travel, but does not require car free development (although the supporting text of Policy 1 does reference the potential for 'car free' development in 'appropriate urban locations').</p> <p>The approach proposed by the 'Proposed Submission Content' (i.e. focusing most of the 9,000 homes within the North East Growth Triangle, NEGT) will therefore give rise to increased air and noise pollution, disruption to amenity and potential secondary health impacts <i>locally</i>, i.e. in the vicinity of the development; and as such, it is suggested that <b>significant negative effects on the baseline are likely</b>.</p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in a dispersed fashion, which in turn would foster car dependency. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>Aspects of this proposed spatial approach to growth that give rise to opportunities to minimise the number of additional car trips that results from development include the following:</p> <ul style="list-style-type: none"> <li>• Development will enable delivery of a Bus Rapid Transit (BRT) between the North East Sector and City Centre via the Salhouse / Gurney Road corridor</li> <li>• There is a choice of other radials in the NE Inside sector which can accommodate any displaced traffic resulting from public transport prioritisation.</li> <li>• The NE Inside sector is well connected to the Norwich Cycle Network and there are opportunities to extend it to the outside.</li> <li>• The train station at Salhouse will afford a further opportunity for non-car based travel.</li> </ul> <p>Furthermore, the following policy approaches presented within the Proposed Submission Content have positive implications in that</p>

	<p>they will help to ensure that opportunities are realised:</p> <ul style="list-style-type: none"> <li>• <i>'The structure of the local geography suggests that this new community will take the form of a series of inter-related new villages or quarters and will include: a district centre based around an accessible "high street"...</i></li> <li>• <i>'The development will... require new local centres'</i></li> <li>• <i>'[There will be] new employment development to serve local needs of major growth locations] including around 25ha of new employment land at Rackheath</i></li> <li>• <i>'[In addition to the BRT there will be] a choice of safe and direct cycle routes to the centre'</i></li> <li>• <i>'[There will be] safe and direct cycle and pedestrian routes, and orbital bus services, to Broadland Business Park, Rackheath employment area, airport employment areas and to the surrounding countryside'</i></li> <li>• <i>'[There will be] new rail halts at Rackheath and Broadland Business Park'</i></li> <li>• <i>'[There will be] permeability and community integration across the Northern Distributor Road...'</i></li> </ul> <p>Two <b>recommendations</b> are made:</p> <ul style="list-style-type: none"> <li>• Ensure that the broad spatial approach to development ('a series of inter-related new villages or quarters') is such that the number of people with good access to high quality public transport services (in particular the BRT service) is maximised.</li> <li>• Ensure that the choice of location for a district centre takes full account of the need to minimise car use / encourage alternatives to the car.</li> </ul>
<p>ENV 2 To improve the quality of the water environment.</p>	<p>Water quality is a significant issue in the plan area and there is a need to deliver improvements to wastewater treatment works in order to ensure water quality in the future. Growth directed to the NEG T will be served by Whitlingham Wastewater Treatment Works (WwTW), which has capacity. For this reason, it is suggested that <b>the Proposed Submission Content does not lead to significant effects on the baseline</b>. No other significant developments are expected to come forward in the future that will give rise to the potential for significant cumulative effects (i.e. resulting from the capacity at Whitlingham WwTW being exceeded).</p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in areas where WwTW capacity would be stretched to the point where there was a risk of it being breached. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p>

	<p><b>N.B.</b> There is also a need to give consideration to water resource availability. Specifically, it is known that interventions will need to be made to ensure that increased demand for water does not adversely affect flows in the Wensum SAC or other important river/wetland environments. This is considered further under ENV8, below.</p> <p>Finally, it is noted that development of the NEGТ will involve having to overcome local sewerage constraints. The water company and relevant environmental bodies are satisfied that development can be accommodated through measures in Anglian Water’s Asset Management Plan (the Water Cycle Study provides further information and it is also important to note the Joint Position Statement prepared by Anglian Water, Natural England and the Environment Agency).</p>
<p>ENV 3 To improve environmental amenity, including air quality.</p>	<p>Given that development will lead to increased local car movements (see discussion under ENV1), it can be assumed that development will lower environmental amenity (including air quality) to some extent locally. However, it is noted that congestion is not a major issue currently within the NE sector, nor are there any designated Air Quality Management Areas. As such, it is suggested that <b>the Proposed Submission Content does not lead to significant effects on the baseline</b>. Policy measures set out within the Proposed Submission Content to minimise car dependency (see discussion under Env 1) and also policy measures set out within the adopted JCS (e.g. under Policy 2: Promoting good design) will help to ensure that this is the case.</p> <p><b>N.B.</b> Under a ‘business-as-usual’ scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in a dispersed fashion, which in turn would foster car dependency and could lead to increased traffic movements within AQMAs. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p>
<p>ENV 4 To maintain and enhance biodiversity and geodiversity.</p>	<p>It is assumed that growth on this scale within the NEGТ will lead to direct effects on land that has some biodiversity importance, or land that contributes to the functioning of wider ‘ecological networks’. There could also be some indirect effects associated with growth, such as through recreational use of important sites. As such, it is suggested that <b>significant negative effects on the baseline are likely</b>.</p> <p>Specifically, it is noted that the proposed approach (growth focused on the NEGТ) will mean that growth occurs in relatively close proximity to the Broads. The Proposed Submission Content requires that: ‘A significant area north of Rackheath will be provided as green space to act as an ecological buffer zone and ensure no significant adverse impacts on the Broads SAC, Broadland SPA and Broadland Ramsar site’. This should help to ensure that some of the effects of growth in the NEGТ – most notably those that relate to recreational use and disturbance - are mitigated. If a long term perspective is taken, however, the potential for this approach to have some negative implications for the Broads (e.g. associated with recreational use) cannot be ruled out given the potential for growth in the NEGТ and elsewhere in the NPA to act in combination with growth in other parts of the region, most notably Great</p>

	<p>Yarmouth / Lowestoft.</p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to important biodiversity sites (e.g. nationally and locally designated sites) or areas of greenspace that contribute to the functioning of the wider ecological network. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>It is noted that the Proposed Submission Content does include policy measures to ensure that any effects are mitigated as far as possible. In particular, it is a requirement that:</p> <ul style="list-style-type: none"> <li>• <i>'[Green infrastructure will be put in place with a view to achieving] retention of existing important greenspaces and significant levels of heathland re-creation to provide stepping stones to link Mousehold Heath to the surrounding countryside. Building design including, for example, appropriate use of 'green roofs' will help provide linkage between greenspaces'</i></li> <li>• <i>'[Green infrastructure will be put in place with a view to] restoring and conserving historic parkland and important woodland.'</i></li> </ul>
<p>ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<p>Growth within the NEGТ will be predominantly on greenfield land that currently contributes to local landscape character. As such, it is suggested that <b>significant negative effects on the baseline are likely.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to important landscapes, heritage assets and areas of notable historic character. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>It will be possible to mitigate the effect of the Proposed Submission Content by putting in place well planned green infrastructure (see discussion under ENV4). In particular, it is expected that the proportion of the total NEGТ footprint that will be comprised of green infrastructure will ensure that there is scope to protect historic parks and gardens and the setting of Thorpe End (a village with a distinctive identity, having originally been designed in the 1930s as a 'Garden Village'). On a negative note, development would be expected to result in some development within the bounds of the former USAAF base at Rackheath, which has some heritage and cultural value, although it is not a site protected for as a result of any heritage status.</p> <p>It is <b>recommended</b> that:</p> <ul style="list-style-type: none"> <li>• Mechanisms should be put in place to ensure that a strategic approach is taken to green infrastructure planning at the scale of</li> </ul>

	<p>the NEGТ. In particular, the approach to green infrastructure should be guided by an understanding of the local landscape character ('Wooded Estatelands' where particular sensitivities include the mosaic of parkland, arable field and woodlands and landscape setting of historic houses, halls, churches and the setting of villages and hamlets).</p>
<p>ENV 6 To adapt to and mitigate against the impacts of climate change.</p>	<p>There are three things to consider:</p> <p>1) A key 'climate change mitigation' concern relates to the degree to which the proposed approach will support efforts to reduce car dependency / bring about a modal shift to public transport, less polluting forms of private transport and walking/cycling. As discussed under ENV1, relative to the baseline approach (whereby up to 9,000 homes could be relatively dispersed), the Proposed Submission Content performs well.</p> <p>2) Another consideration relates to the degree to which community level low carbon energy is supported. The 2009 Greater Norwich JCS Sustainable Energy Study identified that development at a scale of roughly 500 units (and at a density of 50 units per hectare) is necessary in order to support Combined Heat and Power (CHP) systems. In-line with this evidence, Policy 3 (Energy and water) of the adopted JCS requires that:</p> <p><i>In addition to the above requirement, detailed proposals for major developments (minimum of 500 dwellings or 50,000sqm of non residential floorspace) will be required to demonstrate through the Design and Access Statement that the scheme has seized opportunities to make the most of any available local economies of scale to maximise provision of energy from sources of 'decentralised and renewable or low carbon energy sources'</i></p> <p>In light of this adopted policy approach, it is likely that the Proposed Submission Content approach performs well relative to the baseline.</p> <p>3) The Proposed Submission Content is clear that development at Rackheath should come forward as an eco-community / exemplar zero carbon development. It is also stated that <i>'development of the rest of the area will be expected to reflect similar high standards.'</i></p> <p>In light of (1), (2) and (3) it is suggested that <b>significant positive effects on the baseline are likely</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion, and there is less opportunity to design-in CHP.</p> <p>It is <b>recommended</b> that reference to Rackheath being a 'low carbon development' is removed (but the reference to Rackheath as a zero carbon development is retained).</p> <p><b>N.B.</b> In terms of climate change <i>adaptation</i>, the key consideration relating to the growth strategy relates to flood risk. This is discussed below, under ENV7.</p>



<p>ENV 7 To avoid, reduce and manage flood risk.</p>	<p>Development focused on the NEGТ will be able to avoid flood risk zones, and there is no evidence to suggest that any would result in increases to offsite (downstream) flood risk. As such, it is suggested that <b>the Proposed Submission Content will not lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where there are impacts to flood risk. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>In terms of surface water flooding, the emerging Norwich Surface Water Management Plan does not identify the NEGТ as area of particular risk. It will be possible to address any issues that are found to exist within subsidiary documents that come forward to guide development of the NEGТ; however it is <b>recommended</b> that the benefit of addressing surface water flooding through an overarching policy within the JCS should be explored.</p>
<p>ENV 8 To provide for sustainable use and sources of water supply.</p>	<p>A key issue for the JCS relates to the need for intervention to allow for the sustainable reduction of abstraction at Costessey. The proposed spatial approach to delivering growth within the Norwich Policy Area does not lead to any implications in this respect, and so it is suggested that <b>the Proposed Submission Content does not lead to significant effects on the baseline.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located where water is extracted from sensitive groundwater reservoirs. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>It is noted that Policy 1 (Addressing climate change and protecting environmental assets) and Policy 3 (Energy and water) of the adopted JCS seek to ensure that new development is designed with water efficiency in mind.</p>
<p>ENV 9 To make the best use of resources, including land and energy and to minimise waste production.</p>	<p>Growth within the NEGТ will be predominantly on greenfield land. Whilst the agricultural land lost would be predominantly grade 3 (i.e. lower quality), there will (more than likely) be some loss grade 2 agricultural land. As such, it is suggested that <b>significant negative effects on the baseline are likely.</b></p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located predominantly on higher value greenfield land. This could lead to an argument that the effect of the Proposed Submission Content is positive with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be</p>

	<p>delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p> <p>It is noted that Policy 1 (Addressing climate change and protecting environmental assets) of the adopted JCS requires that development <i>'make[s] the most efficient appropriate use of land, with the density of development varying according to the characteristics of the area, with the highest densities in centres and on public transport routes'</i>. It is also noted, from the Proposed Submission Content, that 'a sustainable development code' is being developed for the NEGТ.</p> <p>It is <b>recommended</b> that early guidance is provided in relation to appropriate densities.</p> <p>Finally, it is noted that the Proposed Submission Content requires that <i>'[the growth area will include] a new household waste recycling centre.'</i> This commitment has positive implications in relation to this objective.</p>
<p>SOC 1 To reduce poverty and social exclusion.</p>	<p>Development in the right location has the potential to stimulate or support the regeneration of deprived areas. Growth focused on the NEGТ will not <i>directly</i> support regeneration priorities given that the area does not contain, nor is it adjacent to, priority areas. As such, it is suggested that <b>the Proposed Submission Content does not lead to significant effects on the baseline.</b></p> <p>However, there is the potential for indirect benefits. In particular, it is notable that growth focused at the NEGТ will enable a BRT service that serves the Heartsease Estate (one of the most deprived parts of Norwich) which in turn will enable better access to employment locations and the City Centre. Heartsease residents will also have better access to jobs and services in the growth area.</p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative planning applications. These could conceivably be located in such a way that the result is to directly support regeneration in relatively deprived areas. This could lead to an argument that the effect of the Proposed Submission Content is negative with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p>
<p>SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.</p>	<p>The Proposed Submission Content requires that: <i>'[The Growth Triangle will include] a district centre based around an accessible 'high street' and including a new library, education and health facilities'</i>. This should mean that important services and facilities are easily accessible to new residents, including for those that are less mobile. Furthermore new services and facilities within the NEGТ will also be accessible to those who live in the rural parts of Broadland district and residents of Heartsease (one of the most deprived parts of Norwich).</p> <p>More generally, the requirement (as set out within the Proposed Submission Content) that the NEGТ should be a mixed use development and should make the most of opportunities to support walking and cycling (see discussion under ENV1) should have positive implications for health.</p>

	<p>As such, it is suggested that <b>significant positive effects on the baseline are likely</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion, and there is less opportunity to include a range of community services and facilities etc.</p> <p>Having predicted a positive effect, it is nonetheless important to highlight that a spatial strategy focused on large scale strategic development can give rise to concerns relating to 'infrastructure lag', i.e. the situation whereby a large number of houses come forward before the necessary infrastructure (including community infrastructure) is in place. In light of this risk, it is <b>recommended</b> that the Council clarifies (at the earliest opportunity) the situation regarding phasing and the timing of key infrastructure delivery.</p> <p>Other considerations relate to 'access to the countryside' and also access to the Norwich Cycle Network. In both respects a spatial approach to growth focused on the NEGТ performs well. Specifically, the NEGТ is:</p> <ul style="list-style-type: none"> <li>• Close to accessible countryside and Mousehold Heath; and</li> <li>• Well connected to the Norwich Cycle Network and would allow good opportunity to reach the City Centre and major employment locations.</li> </ul>
<p>SOC 3 To improve education and skills.</p>	<p>The Proposed Submission Content requires that: <i>'[The Growth Triangle will include a] new pre-school provision and up to six new primary schools plus a new secondary school with an initial phase to open as early as possible. To facilitate early provision the early phases of development will concentrate on family housing'</i></p> <p>As such, it is suggested that <b>significant positive effects on the baseline are likely</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion resulting in less opportunity to coordinate development with school capacity.</p>
<p>SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.</p>	<p>Development of the NEGТ is known to be likely to perform well from a 'viability' perspective. This means that, subject to market conditions, there can be confidence that houses will be built at the desired rate and that developers can afford to deliver 33% of these as 'affordable (with approximate 85% social rented and 15% intermediate tenures) in-line with Policy 4 (Housing Delivery) of the adopted JCS.</p> <p>Furthermore, it is important to remember that the Proposed Submission Content includes provision for 2,000 homes to come forward on small sites within Broadland District, the locations of which are yet to be determined. This provision is important from a perspective of ensuring a timely supply of market and affordable homes given that it equates to providing developers with a 'choice' of development opportunities.</p> <p>As such, it is suggested that <b>significant positive effects on the baseline are likely</b>.</p> <p><b>N.B.</b> Under a 'business-as-usual' scenario, anything up to 9,000 new homes could potentially be delivered through speculative</p>

	<p>planning applications. These could conceivably be located in such a way that the result is to provide housing in parts of the NPA where there is a particularly high need. This could lead to an argument that the effect of the Proposed Submission Content is negative with respect to the future baseline. However, the nature of the business-as-usual scenario is impossible to anticipate with any certainty (i.e. the total number of new homes that might be delivered and where) and it cannot be used as a basis for predicting effects with confidence.</p>
<p>SOC 5 To build community identity, improve social welfare, and reduce crime and anti-social activity.</p>	<p>It can be assumed that the decision to deliver 7,000 homes as one large development within the NEGТ will mean that it is possible to deliver a new community that includes a range of community services and facilities (including health facilities) within walking distance and will be masterplanned with green infrastructure in mind.</p> <p>As such, it is suggested that <b>significant positive effects on the baseline are likely</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion resulting in less opportunity to deliver mixed and inclusive communities.</p>
<p>SOC 6 To offer more opportunities for rewarding and satisfying employment for all.</p>	<p>Growth focused at the NEGТ will enable excellent access to large employment locations (as well as employment in the City Centre). Specifically, Broadland Business Park is a strategic employment location within the sector, which has capacity to grow. The sector is also adjacent to Norwich Airport, another strategic employment area with capacity to growth. Local employment at Salhouse Road and Sprowston Retail Park indicate some additional prospect for local employment growth in the sector.</p> <p>Furthermore, the Proposed Submission Content requires that the NEGТ development includes <i>'around 25ha of new employment land at Rackheath'</i>.</p> <p>As such, it is suggested that <b>significant positive effects on the baseline are likely</b>. This judgement has been made in the knowledge that the situation under the business as usual scenario would likely be one where up to 9,000 homes come forward in a more piecemeal fashion resulting in less opportunity to ensure development in close proximity to employment.</p>
<p>SOC 7 To improve the quality of where people live.</p>	<p>In the short term, many existing local residents will perceive development within the NEGТ as having a detrimental effect on the quality of the local environment. This, in turn, could have negative implications in relation to health and well-being. However, it is likely that effects can be mitigated to a large extent through measures that can be put in place during masterplanning (including in relation to phasing and construction practices), and so it is not suggested that steps be taken at this stage to mitigate this likely effect.</p> <p>In the longer term there is the potential for positive effects. The Proposed Submission Content requires that <i>'[The Growth Triangle, along with other major locations for growth] will be masterplanned as attractive, well-serviced, integrated, mixed use development using a recognised design process giving local people an opportunity to shape development.'</i> This should help to ensure that the NEGТ comes forward as a high quality development. Importantly, an inclusive design process should help to ensure that existing</p>

	<p>residents of the NEGT and adjacent areas are able to input.</p> <p>On balance, it is suggested that <b>significant positive effects on the baseline are likely.</b></p>
SOC 8 To improve accessibility to essential services, facilities and jobs.	<p>It is suggested that <b>significant positive effects on the baseline are likely.</b> Please refer to discussion of access to services and facilities under SOC2 and access to jobs under SOC6.</p>
EC 1 To encourage sustained economic growth.	<p>As described under SOC6 and SOC8, the approach described within the Proposed Submission Content will ensure that housing development is focused in close proximity to key (i.e. important) employment locations. This has positive implications for the continued success of these employment locations. Furthermore, in-line with Policy 10 (Locations for major new or expanded communities in the Norwich Policy) of the adopted JCS, the NEGT will be developed as a mixed use development, meaning that housing will be interspersed with employment uses. These factors will help to secure a range of attractive employment sites, and hence could factor into efforts to ensure a diverse employment base. However, any benefits will be relatively indirect, and as such <b>significant effects on the baseline are not predicted.</b></p>
EC 2 To encourage and accommodate both indigenous and inward investment.	<p>As discussed under EC1, the approach set out within the Proposed Submission Content will help to ensure a diversity of employment locations (i.e. locations that will be appropriate to a range of business types). However, in relation to this objective, benefits will be relatively indirect and as <b>significant effects on the baseline are not predicted.</b></p>
EC 3 To encourage efficient patterns of movement in support of economic growth.	<p>As described under EC1, the approach described within the Proposed Submission Content will ensure that housing development is focused in close proximity to key employment locations, and that a high proportion of residents are able to find employment within the NEGT. This will help to ensure efficient patterns of movement in support of economic growth. Furthermore, as described under ENV1, this approach to spatially targeting growth will help to ensure take-up of alternatives to private car travel. However, <b>it is not clear that significant effects on the baseline will result.</b></p>
EC 4 To improve the social and environmental performance of the economy.	<p>As has been discussed under other objectives (e.g. ENV1), a range of non-car based transport modes are supported in policy and it is likely that development of the NEGT will enable considerable opportunity for residents to access employment by modes of transport other than the private car.</p> <p>Another consideration relates to the fact that the Proposed Submission Content will support employment growth in a location where the jobs created will be accessible to residents of both urban and rural areas.</p> <p>Taking the above into consideration, there are can be seen to be positive implications in terms of this objective; however, benefits are indirect and as such <b>significant effects on the baseline are not predicted.</b></p>

6.4.3 Under the SEA Directive, several different dimensions of the likely significant effects on the environment should be identified. These include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary effects (SEA Directive, Annex I). Although these effects are drawn out in Table 6.2 above, they are reiterated and elaborated upon in Table 6.3 below.

Table 6.3: Further information on the nature of effects

Indirect / secondary effects
<ul style="list-style-type: none"> <li>• Secondary impacts on health arising from air and noise pollution from increased traffic in the NEGТ.                             <ul style="list-style-type: none"> <li>• However, it's important to remember that under the 'likely future baseline' scenario there could also be traffic congestion (with secondary implications for health) resulting from the fact that up to 9,000 homes could be distributed widely across the NPA in a way that would not support the provision of a high quality public transport system.</li> </ul> </li> <li>• 'Infrastructure lag' may arise if the construction of new homes outpaces the provision of supporting infrastructure such as schools and health facilities with a range of secondary effects, including in relation to health.</li> <li>• There could be indirect impacts on biodiversity through increased recreational use of important sites that are easily accessible from the NEGТ.</li> </ul>
Cumulative / synergistic effects
<ul style="list-style-type: none"> <li>• First and foremost there is a need to take into account the fact that the development described within the Proposed Submission Content will come forward alongside that prescribed by the adopted JCS. This, of course, has wide ranging implications. In terms of the environmental baseline, there is the potential for cumulative negative effects, although it is important to note that green infrastructure will be delivered alongside (i.e. funded by) development. In terms of the socio-economic baseline, there is the likelihood that development focused on the North East (as allocated by the Proposed Submission Content) will act synergistically with growth focused elsewhere in the NPA to bring about a more prosperous sub-region.</li> <li>• Development in The Broads itself is limited and, as such, is unlikely to act cumulatively with development under the preferred alternative to cause, for example, increased impacts to biodiversity associated with traffic pollution or recreational use. The Broads Core Strategy 2007-2012 is clear that The Broads is an 'area of general restraint'.</li> <li>• Other potentially relevant neighbouring authorities for the purposes of considering cumulative effects include Greater Yarmouth, North Norfolk and Breckland.                             <ul style="list-style-type: none"> <li>• Great Yarmouth has yet to adopt its Core Strategy but the latest version states that over the plan period Great Yarmouth town centre, Cobholm, North Quay, South Denes, Southtown, Runham Vauxhall and Gorleston will accommodate the majority of the housing, employment and retail development. Great Yarmouth and Gorleston are both on the coast and a significant distance from Norwich and cumulative impacts arising from development in Great Yarmouth and the NEGТ are considered unlikely.</li> <li>• The North Norfolk Core Strategy, adopted in September 2008, indicates that the majority of new commercial and residential development (approximately 75% of new employment land and 50% of new homes) will take place in Cromer, Holt, Fakenham and North Walsham. Again, these are all a significant</li> </ul> </li> </ul>



- distance from Norwich and cumulative impacts arising from development in North Norfolk and the NEGT are considered unlikely.
- Under Breckland's Core Strategy, the District is set to deliver 15,200 homes and 6,000 net new jobs over the period 2001 to 2021, 6,000 of which will be accommodated in Thetford which is a significant distance from Norwich. Other significant areas for development include Attleborough which is nearer to Norwich but to the South West (as opposed to the North East and the NEGT). Three other towns - Dereham, Swaffham and Watton - will also be the focus for some development. Again all three towns are some distance from Norwich and cumulative impacts arising from development in Breckland and the NEGT are considered unlikely.

Short-term	Medium-term	Long-term
<ul style="list-style-type: none"> <li>Impacts arising from construction although these could extend for many years as development in the NEGT is gradually built</li> <li>'Infrastructure lag' may arise if the construction of new homes outpaces the provision of supporting infrastructure such as schools and health facilities with a range of secondary effects, including in relation to health.</li> </ul>	<ul style="list-style-type: none"> <li>Many of the positive effects identified will be felt in the medium to long term, rather than the short term.</li> </ul>	<ul style="list-style-type: none"> <li>If a long term perspective is taken, the potential for this approach (growth focused on the NEGT) to have some negative implications for the Broads (e.g. associated with recreational use) cannot be ruled out given the potential for growth in the NEGT and elsewhere in the NPA to act in combination with growth in other parts of the region, most notably Great Yarmouth / Lowestoft. See further discussion under ENV4.</li> </ul>
Temporary effects		Permanent effects
<ul style="list-style-type: none"> <li>Impacts arising from construction although these could extend for many years as development in the NEGT is gradually built</li> <li>'Infrastructure lag' may arise if the construction of new homes outpaces the provision of supporting infrastructure such as schools and health facilities with a range of secondary effects, including in relation to health.</li> <li>A whole range of effects could ultimately be temporary if, for example, new national policies were adopted or emerging technologies became widely adopted (e.g. electric vehicles).</li> </ul>		<ul style="list-style-type: none"> <li>Generally speaking, impacts on biodiversity, the landscape and any features in the historic environment are likely to be permanent; in contrast, impacts on air and water quality, are, in principle, potentially reversible over time.</li> <li>The effect of greenhouse gas emissions is, in essence, permanent.</li> </ul>

### Conclusions and recommendations in relation to the Proposed Submission Content

- 6.4.4 The appraisal has suggested that the spatial approach to targeting growth described by the Proposed Submission Content leads to the likelihood of significant negative effects in terms of the following environmental objectives:
- ENV 1: To reduce the effect of traffic on the environment.
  - ENV 4: To maintain and enhance biodiversity and geodiversity.
  - ENV 5: To maintain and enhance the quality of landscapes, townscapes and the historic environment.
  - ENV 9: To make the best use of resources, including land and energy and to minimise waste production.
- 6.4.5 However, the appraisal also shows that various policy measures (put in place both through the adopted JCS and the Proposed Submission Content) will help to ensure that effects are mitigated as far as possible. For example, the Proposed Submission Content presents a range of policy measures that will help to ensure that opportunities for minimising car dependency / encouraging use of public transport and walking/cycling (which in some respects are inherent to the NEGT) are capitalised upon.
- 6.4.6 The following **recommendations** are made:
- Ensure that the broad spatial approach to development ('a series of inter-related new villages or quarters') is such that the number of people with good access to high quality public transport services (in particular the Bus Rapid Transit service) is maximised.
  - Ensure that the choice of location for a district centre takes full account of the need to minimise car use / encourage alternatives to the car.
  - Mechanisms should be put in place to ensure that a strategic approach is taken to green infrastructure planning at the scale of the NEGT. In particular, the approach to green infrastructure should be guided by an understanding of the local landscape character ('Wooded Estatelands' where particular sensitivities include the mosaic of parkland, arable field and woodlands and landscape setting of historic houses, halls, churches and the setting of villages and hamlets).
  - Ensure that early guidance is provided on appropriate densities for development within the NEGT.
  - The benefit of addressing surface water flooding through an overarching policy within the JCS should be explored.
- 6.4.7 In relation to one environmental objective - *ENV 6: To adapt to and mitigate against the impacts of climate change* – the appraisal found that the Proposed Submission Content will result in as significant positive effect. This reflects the fact the nature of the NEGT development (i.e. large scale) will mean that 1) it is possible to reduce per capita greenhouse gas emissions associated with travel and transport by encouraging a modal shift to public transport, less polluting forms of private transport and walking/cycling; 2) it will be possible make the most of economies of scale to maximise provision of energy from decentralised and renewable or low carbon energy sources and 3) the Proposed Submission Content is clear that development at Rackheath should come forward as an eco-community / exemplar zero carbon development, and that 'development of the rest of the area will be expected to reflect similar high standards'. With a view to maximising climate change mitigation benefits, it is **recommended** that:
- Reference to Rackheath being a 'low carbon development' is removed (but the reference to Rackheath as a zero carbon development is retained).

- 6.4.8 The appraisal also highlights the likelihood of a range of significant positive effects in relation to socio-economic objectives. Specifically:
- SOC 2: To maintain and improve the health of the whole population and promote healthy lifestyles.
  - SOC 3: To improve education and skills.
  - SOC 4: To provide the opportunity to live in a decent, suitable and affordable home.
  - SOC 5: To build community identity, improve social welfare, and reduce crime and anti-social activity.
  - SOC 6: To offer more opportunities for rewarding and satisfying employment for all.
  - SOC 7: To improve the quality of where people live.
  - SOC 8: To improve accessibility to essential services, facilities and jobs.
- 6.4.9 These benefits are predicted in light of the fact that large scale development focused on the NEGT presents a number of inherent opportunities; and also the fact that the policies within the Proposed Submission Content seek to capitalise on these opportunities. For example, the Proposed Submission Content requires that: *'[The Growth Triangle will include a] new pre-school provision and up to six new primary schools plus a new secondary school with an initial phase to open as early as possible. To facilitate early provision the early phases of development will concentrate on family housing'*.

## 6.5 Update (December 2012)

- 6.5.1 Following the agreement of Broadland District Council, Norwich City Council and South Norfolk Council, the Joint Core Strategy Proposed Submission Content is submitted to the Secretary of State for Independent Examination. This decision is taken on the basis that, having considered all the representations, the approach set out within the Proposed Submission Content is the most appropriate means of dealing with development pressures locally to 2026 when considered against all reasonable alternatives.
- 6.5.2 Because no changes have been made to the Proposed Submission Content it has not been necessary to update the appraisal findings. Appraisal findings in relation to the Proposed Submission Content remain valid and can be discussed at Examination as necessary. At the discretion of the Independent Inspector, issues raised in response to the publication of the Proposed Submission Content and SA Report (August 2012) can also be discussed further through the Independent Examination.

## 7 WHAT ARE THE NEXT STEPS (INCLUDING MONITORING)?

**“Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action”**

**“...existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring”**

(SEA Directive, Article 10)

**“a description of the measures envisaged concerning monitoring...”**

(SEA Directive, Annex I(i))

### 7.1 Monitoring

7.1.1 Government guidance emphasises that monitoring allows the actual significant environmental effects of implementing a plan or programme to be tested against those predicted.<sup>20</sup> This appraisal has highlighted the potential for the Plan to give rise to a range of significant effects both positive and negative as well a number of uncertain effects. Recommendations have been made to ensure that negative effects are avoided or mitigated insofar as possible. Under the SEA Directive, the significant environmental effects of a implementing a plan should be monitored. The adopted JCS is currently monitored through an Annual Monitoring Report (AMR), the most recent of which was submitted to the Secretary of State at the end of 2011.<sup>21</sup> The AMR sets out a series of indicators for plan monitoring organised under the adopted JCS’s spatial planning objectives.

7.1.2 In light of the above, Table 7.1 below sets out the significant effects identified through this appraisal together with the relevant indicators in the existing AMR. Where relevant indicators have not been established, these gaps in monitoring coverage are highlighted and suggested indicators put forward. These suggestions will be considered by GNDP prior to Plan adoption and the AMR modified as appropriate.

Table 7.1: Monitoring significant effects

Objective	Significant effect?	Relevant indicators <sup>22</sup>	Gaps in coverage and suggested indicators
<b>ENV 1</b> To reduce the effect of traffic on the environment	<b>Yes – negative</b>	<ul style="list-style-type: none"> <li>- Total CO<sub>2</sub> emissions per capita</li> <li>- The proportion of households without a car in rural areas able to access a market town or key service centre at least twice a week by public transport in 30 minutes</li> <li>- Percentage of people crossing Norwich’s</li> </ul>	<p>Indicators could also include:</p> <p>Percentage of residents who travel to work:</p> <p>a) by private motor vehicle; b) by public transport; c) by foot or cycle; and d) work at or mainly at home</p>

<sup>20</sup> Office of the Deputy Prime Minister (2005). *A Practical Guide to the Strategic Environmental Assessment Directive* [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/practicalguidesea.pdf>.

<sup>21</sup> Greater Norwich Development Partnership (2011). *Joint Core Strategy for Broadland, Norwich and South Norfolk: Annual Monitoring Report 2010-2011* [online] available at: <http://www.gndp.org.uk/content/wp-content/uploads/downloads/2012/02/GNDPAMR-FINAL-Jan2012.pdf>.

<sup>22</sup> Details of each indicator are available within the AMR

		<ul style="list-style-type: none"> <li>inner ring road on foot or bike</li> <li>- Building for Life Transport criteria – proportion of schemes which achieve 3 out of 5</li> </ul>	
<b>ENV 2</b> To improve the quality of the water environment	No	<ul style="list-style-type: none"> <li>- Percentage of river length assessed as: a) good biological quality b) good chemical quality</li> </ul>	N/A
<b>ENV 3</b> To improve environmental amenity, including air quality	No	<ul style="list-style-type: none"> <li>- Percentage of people crossing Norwich's inner ring road on foot or bike</li> <li>- Number of designated Air Quality Management Areas (AQMAs)</li> </ul>	N/A
<b>ENV 4</b> To maintain and enhance biodiversity and geodiversity	<b>Yes – negative</b>	<ul style="list-style-type: none"> <li>- Net change in County Wildlife Sites in "Positive Conservation Management"</li> <li>- Percentage of SSSIs in: a) favourable condition; b) unfavourable recovering; c) unfavourable no change; d) unfavourable declining; and e) destroyed/part destroyed</li> <li>- Number of Tree Preservation Orders (TPOs) where trees are lost through development</li> </ul>	Potential gap in coverage; recommend that GNDP explore development of further biodiversity indicators – perhaps related to the extent of biodiversity enhancements in new development
<b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment	<b>Yes – negative</b>	<ul style="list-style-type: none"> <li>- Percentage of developed land which is vacant for more than 5 years</li> <li>- Percentage of Conservation Areas with appraisals</li> <li>- New residential developments of 10 or more units achieving silver standard against</li> </ul>	<p>Potential gap in coverage; recommend that GNDP explore development of further landscape indicators – perhaps related to the effect of new development on valued landscape features</p> <p>Indicators could also include:</p>

		<p>Building for Life</p> <ul style="list-style-type: none"> <li>- Number of listed buildings lost/demolished</li> </ul>	<p>Heritage at risk – number and percentage of:</p> <p>a) Listed Buildings; and b) Scheduled Ancient Monuments on Buildings at Risk Register</p>
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change</p>	<p><b>Yes – positive</b></p>	<ul style="list-style-type: none"> <li>- Total CO<sub>2</sub> emissions per capita</li> <li>- Renewable energy capacity permitted by type</li> <li>- Decentralised and renewable or low carbon energy sources permitted in major developments</li> <li>- All new housing schemes permitted to reach Code for Sustainable Homes level 4 for water on adoption and housing schemes of a minimum of 500 dwellings to reach level 6 for water by 2015</li> </ul>	<p>No obvious gaps - no indicators suggested</p>
<p><b>ENV 7</b> To avoid, reduce and manage flood risk</p>	<p>No</p>	<ul style="list-style-type: none"> <li>- Number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality</li> </ul>	<p>N/A</p>
<p><b>ENV 8</b> To provide for sustainable use and sources of water supply</p>	<p>No</p>	<ul style="list-style-type: none"> <li>- All new housing schemes permitted to reach Code for Sustainable Homes level 4 for water on adoption and housing schemes of a minimum of 500 dwellings to reach level 6 for water by 2015</li> </ul>	<p>N/A</p>
<p><b>ENV 9</b> To make the best use of resources, including land and energy and to minimise waste production</p>	<p><b>Yes – negative</b></p>	<ul style="list-style-type: none"> <li>- Percentage of household waste that is a) reused , b) recycled and c) composted</li> <li>- Percentage of new</li> </ul>	<p>No obvious gaps - no indicators suggested</p>



		and converted dwellings on Previously Developed Land	
<b>SOC 1</b> To reduce poverty and social exclusion	No	- Number of Lower Super Output Areas in national most deprived 20%	N/A
<b>SOC 2</b> To maintain and improve the health of the whole population and promote healthy lifestyles	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- Number of Lower Super Output Areas in national most deprived 20%</li> <li>- Number of people killed or seriously injured in road traffic accidents</li> <li>- Percentage of working age population receiving Employment Support Allowance and incapacity benefits</li> <li>- Healthy life expectancy at age 65 of a) males and b) females</li> <li>- Accessibility of leisure and recreation facilities based on Sport England Active Places Power website</li> </ul>	No obvious gaps - no indicators suggested
<b>SOC 3</b> To improve education and skills	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- School leaver qualifications - % of school leavers with 5 or more GCSEs at A* to C grades including Maths and English</li> <li>- 16 to 18 year olds who are not in education, employment or training</li> <li>- Proportion of population aged 16-64 qualified to NVQ level 2 or higher</li> <li>- Proportion of population aged 16-64 qualified to NVQ level 4 or higher</li> <li>- Achievement of at least 78 points across the Early Years Foundation Stage,</li> </ul>	No obvious gaps - no indicators suggested

		with at least 6 in each of the scales in PSE and CLL	
<b>SOC 4</b> To provide the opportunity to live in a decent, suitable and affordable home	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- Net housing completions</li> <li>- Affordable housing completions</li> <li>- New house completions by bedroom number, based on the proportions set out in the most recent Sub-regional Housing Market Assessment</li> <li>- Housing to meet the needs of older people, defined as a key group in the housing market assessment. Assessed by satisfaction of people over 65 with both home and neighbourhood</li> <li>- Percentage of [housing] completions scoring at least 14 out of 20 (silver standard) in Building for Life (BfL) criteria</li> <li>- New residential developments of 10 or more units achieving silver standard against Building for Life</li> </ul>	<p>Indicators could also include:</p> <p>Unfit housing – percentage of overall housing stock not meeting 'Decent Homes Standard'</p>
<b>SOC 5</b> To build community identity, improve social welfare, and reduce crime and anti-social activity	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- Number of Lower Super Output Areas in national most deprived 20%</li> <li>- Reduction in overall crime</li> </ul>	Potential gap in coverage; recommend that GNDP explore development of further indicators around gauging the extent of anti-social behaviour
<b>SOC 6</b> To offer more opportunities for rewarding and satisfying employment for all	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- Percentage of workforce employed in higher occupations (managers and senior officials, professional occupations and associate professional and technical</li> </ul>	Potential gap in coverage; the only current relevant indicator is somewhat narrowly conceived

		occupations)	
<b>SOC 7</b> To improve the quality of where people live	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- Number of Lower Super Output Areas in national most deprived 20%</li> <li>- Percentage of developed land which is vacant for more than 5 years</li> <li>- Percentage of units vacant in defined primary shopping areas</li> </ul>	Potential gap in coverage; recommend that GNDP explore development of further indicators around gauging peoples' opinions of their local area, particularly those living in and nearby new urban extensions
<b>SOC 8</b> To improve accessibility to essential services, facilities and jobs	<b>Yes – positive</b>	<ul style="list-style-type: none"> <li>- The proportion of households without a car in rural areas able to access a market town or key service centre at least twice a week by public transport in 30 minutes</li> <li>- Accessibility to market towns and key centres of employment during the morning peak (0700-1000), returning in the afternoon peak (1600-1900)</li> <li>- Net change in retail floorspace in city centre</li> <li>- National retail ranking for Norwich</li> <li>- Percentage of units vacant in defined primary shopping areas</li> <li>- Accessibility of leisure and recreation facilities based on Sport England Active Places Power website</li> </ul>	No obvious gaps - no indicators suggested
<b>EC 1</b> To encourage sustained economic growth	No	<ul style="list-style-type: none"> <li>- Amount of floorspace developed by employment type</li> <li>- Office space 07-26: 100,000m2 Norwich City Centre; 100,000m2 NRP; 50,000m2 BBP;</li> </ul>	N/A

		<ul style="list-style-type: none"> <li>50,000m2 elsewhere</li> <li>- Annual count of employee jobs by BRES across Plan area (NB BRES = Business Register and Employment Survey)</li> <li>- Employment rate of working age population</li> <li>- Number in employment in rural area</li> <li>- New business registration rate per 10,000 population 16+</li> <li>- New business registration rate as a percentage of business stock</li> <li>- Percentage of workforce employed in higher occupations (managers and senior officials, professional occupations and associate professional and technical occupations)</li> <li>- National retail ranking for Norwich</li> <li>- Net change in retail floorspace in city centre</li> <li>- Percentage of completed town centre uses in identified centres and strategic growth locations</li> </ul>	
<b>EC 2</b> To encourage both indigenous and inward investment	No	None identified	N/A
<b>EC 3</b> To encourage efficient patterns of movement in support of economic growth	No	None identified	N/A
<b>EC 4</b> To improve the social and environmental performance of the economy	No	None identified	N/A

## 7.2 What happens next?

**“...when a plan or programme is adopted, the [environmental] authorities... [and] the public ... are informed and the following items [shall be] made available to those so informed: (a) the plan or programme as adopted, (b) a statement summarising how environmental considerations have been integrated into the plan or programme.... [including] the reasons for choosing the plan or programme as adopted, in light of other reasonable alternatives dealt with, and (c) the measures decided concerning monitoring”**

(SEA Directive Article 9(1))

- 7.2.1 Following the submission of the Joint Core Strategy Proposed Submission Content to the Secretary of State it will be assessed by an Independent Inspector. Should the Submission Content be found sound and subsequently adopted by Broadland District Council, Norwich City Council and South Norfolk Council an “SA Statement” will be published that summarises how environmental and sustainability considerations have been reflected in the plan together with the findings of the public consultation. The SA Statement will also set out the reasons for choosing the plan as adopted in light of the other reasonable alternatives dealt with.