

## **Sustainability Appraisal February 2009**

Following the Member decision to investigate option 2+ the GNDP carried out a SA of this further option on the same basis as previous options.

This appraisal was carried out in February 2009 and appended to the existing SA. This SA document is EIP14 and was available for the Regulation 25 Public Consultation.

# Greater Norwich Development Partnership

PO Box 34666  
Norwich  
NR7 7NX

«Full\_Name»  
«Organisation»  
«Address\_Line\_1»  
«Address\_Line\_2»  
«Address\_Line\_3»  
«Address\_Line\_4»  
«County»  
«Postcode»

«Selection\_Code» «Break\_Mark»  
«Sort\_Position»

30<sup>th</sup> April 2009

Dear consultee

## **Joint core strategy for Broadland, Norwich and South Norfolk**

### **Regulation 25 consultation deadline extended to 5pm on Friday 12 June 2009**

The Greater Norwich Development Partnership launched a consultation on the draft joint core strategy at the beginning of March.

I would like to warmly thank everyone for having taken the time to take part in the public consultation to date, which has been extended for a further 6 weeks. Many local people visited exhibitions and are taking part in the online consultation. The high turnout indicated how strongly local people care about the future of all three districts.

Because of its importance to peoples' lives across the area we want to make sure as many people as possible have the opportunity to comment on the draft joint core strategy. We would especially like to encourage people to take part who might have felt they did not have enough time.

### **The new deadline is 5pm on Friday 12 June 2009.**

I also want to let you know that the sustainability appraisal is available for comment, as part of this consultation process. It is an important part of the evidence base for the joint core strategy.

The GNDP will begin the process of analysing responses on the strategy itself, or the sustainability appraisal. All comments will be collated into a report available on the GNDP website by July.

**Jobs, homes, prosperity for local people**



### How to Respond

You can respond to this consultation by filling in a comments form which is available on-line at [www.gndp.org.uk](http://www.gndp.org.uk). Comments about the Sustainability Appraisal can be made under question 28 of the form (*any other comments on the joint core strategy or the sustainability appraisal*).

If you have questions, or would like the comments form in a different format, please contact your local planning team:

In Broadland: 01603 431133

In Norwich: 0844 9803333

In South Norfolk: 01508 533805

Please make sure your comments are received by **5 p.m., 12 June 2009**

In addition, I would like to refer you to information from Norfolk County Council about ongoing work to improve travel in and around Norwich. This is an important element of the joint core strategy itself and further details are available alongside the current GNDP consultation. The Norwich Area Transportation Strategy leaflet contains details about how to comment. You can see it on the County Council's website [www.norfolk.gov.uk/NATS](http://www.norfolk.gov.uk/NATS).

Yours sincerely,



Sandra Eastaugh  
Greater Norwich Development Partnership Manager

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised:  
**Locations for Growth and Change in the NPA**  
**Technical Consultation Option 1**

**SCORING SYSTEM:**

++	Very positive effects	+	Positive effects	--	Very negative effects	-	Negative effects	+--	Mixed effects
N	Neutral / insignificant effects			?	Uncertain effects	Na	Sustainability objective is not applicable to this option		

SA Objective	Decision making criteria	Short-Term 0-5 yrs	Medium Term 5-20 yrs	Long-Term 20+ yrs	Comments / Justification Inc. cumulative effects
<b>ENVIRONMENTAL</b>					
<b>ENV 1</b> To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?  Will it increase the proportion of journeys using modes other than the car?  Will it reduce the effect of HGV traffic on people and the environment?  Will it encourage more benign modes of travel?  Will new development be located such to reduce the need for people to travel?	N	++	++	Locating growth in combination in NE and SW/Wymondham provides enhanced ability for high quality public transport and co-location of housing and employment. The policy includes strong references to self-containment; walking and cycling and bus and rail use, which clearly need to be in place for such growth.  (Policy could be improved by more specific reference to public transport linkages across the city in a SW-NE direction linking the suggested growth locations through the city centre)
<b>ENV 2</b> To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	N	N	N	The water cycle study identifies the need for phosphate stripping for waste water from all major growth locations in the Norwich Policy Area. This is

water environment	Will it help to support wetland habitats and species?				<p>to ensure potentially negative effects of increased discharge into water courses would be mitigated. This investment would maintain current standards of water quality (or other standards as may be required by statutory discharge consents).</p> <p>Any potentially adverse impacts on the water environment would be mitigated either as part of projects to deliver the Green Infrastructure Strategy or by careful design at masterplanning and detailed planning stages.</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>	N	-	-	<p>The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local services and a more general emphasis on a modal shift away from car use as required by the East of England Plan. However, the level of growth which is required in the area means there is likely to be the potential for air quality to worsen nevertheless.</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>	N	+/-	+/-	<p>Policy indicates priority to protecting, maintaining and enhancing environmental assets and habitats within the wording against each location suggested. There is specific reference to the characteristics of each location.</p> <p>The review of potential impacts on European designated sites (task 1) identifies three features that could be affected:</p> <ul style="list-style-type: none"> <li>• River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species</li> <li>• Broads SAC is sensitive to indirect potential</li> </ul>

					<p>effects of reduced air quality due to more traffic in the north east; increased visitor pressure and disturbance</p> <ul style="list-style-type: none"> <li>• Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure</li> </ul> <p>Potential significant impacts on designated sites could be greatest with option 1 although there may be suitable mitigations which can be put in place to substantially reduce potential significant effects on designated sites such as measures could include the full implementation and integration of the Green Infrastructure Strategy, the Norfolk Ecological Network and meeting the Norfolk and Norwich BAP targets.</p> <p>(Could be strengthened by a general reference to habitat creation and environmental excellence.)</p>
<p><b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<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>	N	+-	+-	<p>Policy aims to protect local valued landscapes. However, large-scale greenfield development will significantly change the existing agricultural landscape.</p> <p>There is potential for significant change to historic towns and landscapes and parts of the City of Norwich. The magnitude and significance of these potential changes will need evaluating using more detailed appraisals for historic landscapes, historic character and conservation areas.</p> <p>Full implementation of the green infrastructure strategy, and masterplanning for large scale growth</p>

					<p>locations would aim to be distinctive, high quality communities. The scale of greenfield development necessary to deliver the high number of new homes will inevitably have significant effects on rural landscapes. Using the current and future evidence on historic landscapes, the historic environment and cultural and heritage assets will be protected and enhanced.</p> <p>This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option</p> <p>(Consider whether landscape issues should be strengthened in general reference.)</p> <p>NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.</p>
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change.</p>	<p>Will it reduce emissions of greenhouse gases by reducing energy 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>	N	++	++	<p>Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. How well each option performs in terms of climate change mitigation will be mainly determined by the potential for major housing and jobs locations to use sustainable transport . The relative performance of this objective in the SA therefore reflects the assessment given to ENV1.</p> <p>More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO<sub>2</sub> generation. Combined heat and power is also</p>

					<p>positively promoted.</p> <p>There is no significant difference between the options in relation to making the area more resilient to the effects of climate change. The water cycle study and the strategic flood risk assessment both set a framework for future development that maximises water efficiency and identifies flood risk in the plan period with an additional allowance for future flood events exacerbated by the effects of climate change.</p>
<p><b>ENV 7</b> To avoid, reduce and manage flood risk.</p>	<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>	+	++	++	<p>All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.</p> <p>There is no evidence to indicate that this growth option would lead to any particular risks in terms of increased off-site/downstream flood risk that cannot adequately be mitigated through good design.</p>
<p><b>ENV 8</b> To provide for sustainable use and sources of water supply.</p>	<p>Will it conserve groundwater resources?</p> <p>Will it minimise water consumption?</p>	N	+	+	<p><del>Sustainable drainage systems and water saving is promoted but will still use water resources.</del></p> <p>The absolute effect on growth at locations in this option will be to exacerbate the pressure on the already stretched water resources of the East of England. However, there is no indication from the evidence studies that this option will lead to growth at places that will have a particularly significant effect, nor are any of the major growth locations particularly <b>unsuited</b> to the promotion of water minimisation measures.</p>
<p><b>ENV 9</b> To make the best use of resources,</p>	<p>Will it minimise consumption of materials and resources?</p> <p>Will it promote the use of land in sustainable locations that</p>	N	+-	+-	<p>Maximises brownfield potential in the city within the limits of current urban capacity and commitments, and avoiding re-development of urban land that is</p>



including land and energy, and to minimise waste production.	<p>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 eg. energy generation?</p>				<p>required for competing uses such as employment, city centre shopping and leisure, and the distinctive green spaces and green links that contribute to the city's distinctiveness. At the time of this assessment (2009) greater use of brownfield land could be achieved but only with significant public investment to overcome highly constrained brownfield sites (such as Deal Ground and Utilities Site).</p> <p>Major growth locations in all options will be at appropriate densities (higher in village/town centres) and through masterplanning guidance, all will promote and deliver energy and resource efficiency and would support local renewable energy generation for communities and employment locations.</p> <p>Each option avoids the loss of high quality agricultural land but each will require a significant amount of greenfield land.</p> <p>Major growth is predicated on high quality public transport services and a significant shift from people using their cars.</p>
<b>SOCIAL</b>					
<p><b>SOC 1</b> To reduce poverty and social exclusion.</p>	<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>	N	+	+	<p>Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.</p>
<p><b>SOC 2</b> To maintain and improve the</p>	<p>Will it improve access to high quality health facilities?</p> <p>Will it encourage healthy lifestyles? How?</p>	N	++	++	<p>It is likely that major green field developments are better suited to designing in green infrastructure from initial masterplanning and three could give</p>

<p>health of the whole population and promote 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>				<p>better opportunities for walking, cycling and outdoor recreation. There is no significant difference between the options on new settlements/large-scale urban extensions and all places are able to promote good links to the surrounding countryside and green infrastructure, walking and cycling.</p> <p>Health care provision promoted.</p> <p>(But will need to investigate the scale and type of primary health care that can be supported in a new centre with 2,000 dwellings at Easton/Costessy.)</p>
<p><b>SOC 3</b> To improve education and skills.</p>	<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>N</p>	<p>+</p>	<p>+</p>	<p>All locations cater for new secondary schools.</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>N</p>	<p>++</p>	<p>++</p>	<p>Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings.</p> <p>Compared with options 2 and 3, this option performs better because there is greater certainty about affordable housing delivery. The other options include a Long Stratton bypass and uncertainty over funding raises issues about how much or whether 40% affordable housing would be delivered.</p>

	Will it make best use of existing housing stock?				This objective scores very positively because there is a high degree of certainty that affordable housing can be met.
<b>SOC 5</b> To build community identity, improve social welfare, and reduce crime and anti-social activity.	Will it encourage engagement in community activities?  Will it contribute to the achievement of a mixed and balanced community?  Will it reduce actual levels of crime?  Will it reduce the fear of crime?	N	++	++	There is no indication that development at the locations promoted by this option will lead to negative effects on community cohesion, and there should be the potential at these locations for good masterplanning and design to support community cohesion.  The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc.
<b>SOC 6</b> To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall?  Will it help to improve earnings?	N	++	++	Promotes growth that is well-related to strategic employment locations and/or well-connected with them and the city centre. Each growth location under any option will also offer a range of local employment opportunities.  A central feature of the joint core strategy under any option is to develop the knowledge economy as well as increasing aspirations and opportunities for people with a wide range of education or skills training. This will support people at all skill and earnings levels.
<b>SOC 7</b> To improve the quality of where people live.	Will it improve the quality of dwellings?  Will it improve the quality of local open space?	N	+	+	This policy is not location specific as it applies across the plan area. Policy promotes high quality design, interactive approach to master planning and wide range of local facilities.

	Will it improve the satisfaction of people with their neighbourhoods?				(Policy could benefit from extra references to involvement of communities in master planning process.)
<b>SOC 8</b> To improve accessibility to essential services, facilities and jobs.	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?  Will it improve accessibility for all whilst reducing dependency on the private car?  Will it improve access to jobs and services for all?	N	++	++	Major growth locations in this option have a greater likelihood of being places which can support good access to strategic employment locations and other, larger centres.  Some major growth locations are co-located with strategic employment areas. New growth locations will be based on existing smaller centres and will grow so a wider range of new facilities can be promoted.
<b>ECONOMIC</b>					
<b>EC 1</b> To encourage sustained economic growth.	Will it assist in strengthening the local economy?  Will it improve business development and enhance competitiveness?  Will it reduce vulnerability to economic shocks?  Will it promote growth in key sectors?  Will it increase vitality & viability of town centres and improve economic diversity?	N	++	++	Promotes strategic employment areas including provision for key sectors, with a greater degree of certainty about delivery than for options 2 or 3..
<b>EC 2</b> To encourage and accommodate both indigenous and inward investment.	Will it encourage indigenous businesses? Will it encourage inward investment? Will it make land and property available for business?  Will it improve economic performance across the Greater Norwich area?  Will it support / encourage rural diversification?	N	++	++	As above

	Will it support / encourage small city businesses?				
<b>EC 3</b> To encourage efficient patterns of movement in support of economic growth.	<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>	N	++	++	Co-location of strategic housing growth and employment locations.
<b>EC 4</b> To improve the social and environmental performance of the economy.	<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>	N	+	+	Will attract new investment help maintain existing businesses and employment. Co-location of employment and dwellings.

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?

**POLICY OPTION: Locations for Growth and Change in the NPA (Growth option 1)**

**Technical Consultation Option 1**

( Note: This option is generally looking for medium and long term growth, thus there are very limited effects in the short term, hence the 'N' scores given throughout.)

<p><b>Environmental Impacts</b></p>	<p>This option maximises opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer on the approaches Norwich. This is an advantage in relation to option 2, and significantly more than option 3. Growth to the north east would benefit from choice and flexibility about how to manage bus and car traffic. A focus for some of the major growth on the A11 corridor in this option could have potential significant impacts on European sites if the effects are not fully mitigated but the overall strategy also provides for significant enhancement to habitats a green infrastructure. Some improvement to the policy wording needs to be more explicit, ensuring these positive aspects are recognised. The combined locations included as part of the policy give very positive scores, although the primary use of greenfield land is a disadvantage in absolute terms for all options, as is the potential impact on local landscapes where large scale growth is being promoted. Potential bus rapid transit indicated is a benefit to large parts of the existing area.</p>
<p><b>Social Impacts</b></p>	<p>Social aspects score very positively, although the main focus will be on new residents in the areas indicated. Will ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. Requires community engagement in designing the new communities in a 'masterplanning' exercise to ensure effective delivery.</p>
<p><b>Economic Impacts</b></p>	<p>The policy scores very positively. It performs a little better than option 2, and better than option 3 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors.</p>
<p><b>Overall summary:</b></p> <ul style="list-style-type: none"> <li>• Impacts</li> <li>• Possible mitigation measures</li> <li>• Recommended further research</li> <li>• Considering cumulative impacts</li> </ul>	<p>Policy generally performs very well against sustainability criteria. Some improvement to policy wording required to make the implicit explicit.</p> <p>Implementation of sustainable transport infrastructure and services will be key, as this is one of the main requirements for growth set out in the regional spatial strategy.</p> <p>Need to investigate:</p> <ul style="list-style-type: none"> <li>• strengthening consideration of landscape impacts</li> <li>• and potential for innovative use of the railway.</li> </ul>

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

**Option Appraised: Locations for Growth and Change in the NPA  
Technical Consultation Option 2**

**SCORING SYSTEM:**

++	Very positive effects	+	Positive effects	--	Very negative effects	-	Negative effects	+ -	Mixed effects
N	Neutral / insignificant effects			?	Uncertain effects	Na	Sustainability objective is not applicable to this option		

SA Objective	Decision making criteria	Short-Term 0-5 yrs	Medium Term 5-20 yrs	Long-Term 20+ yrs	Comments / Justification Inc. cumulative effects
<b>ENVIRONMENTAL</b>					
<b>ENV 1</b> To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?  Will it increase the proportion of journeys using modes other than the car?  Will it reduce the effect of HGV traffic on people and the environment?  Will it encourage more benign modes of travel?  Will new development be located such to reduce the need for people to travel?	N	+	+	Comparing this option to option 1, it can be seen to promote growth at Long Stratton, at the expense of growth at Wymondham. Growth at Long Stratton will be less likely to facilitate a modal shift away from dependency on the private car, and so this option can be seen to perform less well than option 1 in terms of this SA objective. The absence of high quality public transport infrastructure would be likely to encourage longer commuting journey by car from Long Stratton and these would hinder the potential for increases in bus usage. While growth at Long Stratton under this option would amount to approximately 8% of the total for the Norwich Policy Area, the low potential for high quality public transportation and the consequence for further car use suggests this is a less positive option than option 1 even if some enhanced public transport infrastructure on the A140 corridor is provided..

					<p>In Long Stratton there will be environmental improvements arising from removal of through traffic.</p> <p>(Policy could be improved by more specific reference to public transport linkages across the city in a SW-NE direction linking the suggested growth locations through the city centre)</p>
<p><b>ENV 2</b> To improve the quality of the water environment</p>	<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>	N	N	N	<p>The water cycle study identifies the need for phosphate stripping for waste water from all major growth locations in the Norwich Policy Area. This is to ensure potentially negative effects of increased discharge into water courses would be mitigated. This investment would maintain current standards of water quality (or other standards as may be required by statutory discharge consents).</p> <p>Any potentially adverse impacts on the water environment would be mitigated either as part of projects to deliver the Green Infrastructure Strategy or by careful design at masterplanning and detailed planning stages.</p>
<p><b>ENV 3</b> To improve environmental amenity, including air quality.</p>	<p>Will it improve air quality?</p> <p>Will it reduce the emission of atmospheric pollutants?</p>	N	-	-	<p>The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local services and a more general emphasis on a modal shift away from car use as required by the East of England Plan. However, the level of growth which is required in the area means there is likely to be the potential for air quality to worsen nevertheless.</p> <p>There may be some local improvement to air quality</p>



					in Long Stratton, although this effect alone is not strategically significant.
<p><b>ENV 4</b> To maintain and enhance biodiversity and geodiversity.</p>	<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>		+/-	+/-	<p>Policy indicates priority to protecting, maintaining and enhancing environmental assets and habitats within the wording against each location suggested. There is specific reference to the characteristics of each location.</p> <p>The review of potential impacts on European designated sites (task 1) identifies three features that could be affected:</p> <ul style="list-style-type: none"> <li>• River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species</li> <li>• Broads SAC is sensitive to indirect potential effects of reduced air quality due to more traffic in the north east; increased visitor pressure and disturbance</li> <li>• Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure</li> </ul> <p>Potential significant impacts on designated sites could be comparable to option 1 because of the significant scale of growth on the A11 corridor and in the west although there may be suitable mitigations which can be put in place to substantially reduce potential significant effects on designated sites such as measures could include the full implementation and integration of the Green Infrastructure Strategy, the Norfolk Ecological Network and meeting the Norfolk and Norwich BAP targets.</p>

					(Could be strengthened by a general reference to habitat creation and environmental excellence.)
<p><b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<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>		+-	+-	<p>Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape.</p> <p>There is potential for significant change to historic towns and landscapes and parts of the City of Norwich. The magnitude and significance of these potential changes will need evaluating using more detailed appraisals for historic landscapes, historic character and conservation areas.</p> <p>Full implementation of the green infrastructure strategy, and masterplanning for large scale growth locations would aim to be distinctive, high quality communities. The scale of greenfield development necessary to deliver the high number of new homes will inevitably have significant effects on rural landscapes. Using the current and future evidence on historic landscapes, the historic environment and cultural and heritage assets will be protected and enhanced.</p> <p>This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option</p> <p>(Consider whether landscape issues should be strengthened in general reference.)</p> <p>NOTE All landscape comments need to be reviewed to consider emerging information on historic</p>

					heritage.
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change.</p>	<p>Will it reduce emissions of greenhouse gases by reducing energy 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>		+	+	<p>Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. How well each option performs in terms of climate change mitigation will be mainly determined by the potential for major housing and jobs locations to use sustainable transport . The relative performance of this objective in the SA therefore reflects the assessment given to ENV1.</p> <p>More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO<sub>2</sub> generation. Combined heat and power is also positively promoted.</p> <p>There is no significant difference between the options in relation to making the area more resilient to the effects of climate change. The water cycle study and the strategic flood risk assessment both set a framework for future development that maximises water efficiency and identifies flood risk in the plan period with an additional allowance for future flood events exacerbated by the effects of climate change.</p>
<p><b>ENV 7</b> To avoid, reduce and manage flood risk.</p>	<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</p>		++	++	<p>All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.</p> <p>There is no evidence to indicate that this growth</p>

	reduce run off?				option would lead to any particular risks in terms of increased off-site/downstream flood risk that cannot adequately be mitigated through good design.
<b>ENV 8</b> To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources?  Will it minimise water consumption?		+	+	<del>Sustainable drainage systems and water saving is promoted but will still use water resources.</del>  The absolute effect on growth at locations in this option will be to exacerbate the pressure on the already stretched water resources of the East of England. However, there is no indication from the evidence studies that this option will lead to growth at places that will have a particularly significant effect, nor are any of the major growth locations particularly <b>unsuited</b> to the promotion of water minimisation measures.
<b>ENV 9</b> To make the best use of resources, including land and energy, and to minimise waste production.	Will it minimise consumption of materials and resources?  Will it promote the use of land in sustainable locations that has been previously developed?  Will it use land efficiently?  Will it minimise the loss of "greenfield" land?  Will it avoid the loss of good quality agricultural land and preserve soil resources?  Will it minimise energy consumption and promote energy efficiency?  Will it promote the use of renewable energy sources?  Will it lead to less waste being produced?  Will it lead to less waste being disposed, by promoting		+-	+-	Maximises brownfield potential in the city within the limits of current urban capacity and commitments, and avoiding re-development of urban land that is required for competing uses such as employment, city centre shopping and leisure, and the distinctive green spaces and green links that contribute to the city's distinctiveness. At the time of this assessment (2009) greater use of brownfield land could be achieved but only with significant public investment to overcome highly constrained brownfield sites (such as Deal Ground and Utilities Site).  Major growth locations in all options will be at appropriate densities (higher in village/town centres) and through masterplanning guidance, all will promote and deliver energy and resource efficiency and would support local renewable energy generation for communities and employment locations.

	<p>more recycling and composting?</p> <p>Will it increase waste recovery for other means eg. energy generation?</p>				<p>Each option avoids the loss of high quality agricultural land but each will require a significant amount of greenfield land.</p> <p>Major growth is predicated on high quality public transport services and a significant shift from people using their cars.</p>
<b>SOCIAL</b>					
<p><b>SOC 1</b> To reduce poverty and social exclusion.</p>	<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>		+	+	<p>Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.</p>
<p><b>SOC 2</b> To maintain and improve the health of the whole population and promote healthy lifestyles.</p>	<p>Will it improve access to high quality health facilities?</p> <p>Will it encourage healthy lifestyles? How?</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>		++	++	<p>It is likely that major green field developments are better suited to designing in green infrastructure from initial masterplanning and three could give better opportunities for walking, cycling and outdoor recreation. There is no significant difference between the options on new settlements/large-scale urban extensions and all places are able to promote good links to the surrounding countryside and green infrastructure, walking and cycling.</p> <p>Health care provision promoted.</p> <p>(But will need to investigate the scale and type of primary health care that can be supported in a new centre with 2,000 dwellings at Easton/Costessey.)</p>
<p><b>SOC 3</b> To improve education and skills.</p>	<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>The education solution for Wymondham at this level of growth causes high school capacity problems.</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>Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings.</p> <p>The number of new affordable homes in Long Stratton could well be suppressed because of diversion of funding to the bypass. In this option, major growth at Long Stratton makes up just over 8% of the total Norwich Policy Area new housing requirement. If this is reduced it could be a strategic issue.</p> <p>This objective scores very positively because there is a high degree of certainty that affordable housing can be met.</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>There is no indication that development at the locations promoted by this option will lead to negative effects on community cohesion, and there should be the potential at these locations for good masterplanning and design to support community cohesion.</p> <p>The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc.</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>Promotes growth that is well-related to strategic employment locations and/or well-connected with them and the city centre. Each growth location under any option will also offer a range of local employment opportunities.</p> <p>A central feature of the joint core strategy under any option is to develop the knowledge economy as well as increasing aspirations and opportunities for people with a wide range of education or skills training. This will support people at all skill and earnings levels.</p> <p>Growth in Long Stratton is less well related or connected to strategic employment sites although there some local opportunities will be created.</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>This policy is not location specific as it applies across the plan area. Promotes high quality design, interactive approach to master planning and wide range of local facilities.</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>Major growth locations in this option have a greater likelihood of being places which can support good access to strategic employment locations and other, larger centres.</p> <p>Some major growth locations are co-located with strategic employment areas. New growth locations will be based on existing smaller centres and will grow so a wider range of new facilities can be promoted.</p>

					However, in this option there is growth on a smaller scale and these are less likely to support high quality bus rapid transit and local services. <del>The education solution for Wymondham at this level of growth causes high school capacity problems.</del>
<b>ECONOMIC</b>					
<b>EC 1</b> To encourage sustained economic growth.	<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>		++	++	Growth in Long Stratton less well related to strategic employment sites although some local vitality and opportunities will be created. While Long Stratton would support a relatively small proportion of growth overall, the potential for car commuting would add congestion of car-borne traffic to this major regional route into the city.
<b>EC 2</b> To encourage and accommodate both indigenous and inward investment.	<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>		++	++	As above
<b>EC 3</b> To encourage efficient patterns of movement in support of economic growth.	<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>		+	+	Smaller scale major growth locations less likely to support bus services and local services. Education solution for Wymondham less than ideal.



	<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>		+	+	<p>Will attract new investment help maintain existing businesses and employment. Co-location of employment and dwellings.</p>

**Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?**

- POLICY OPTION: Locations for Growth and Change in the NPA  
Technical Consultation Option 2**

<p><b>Environmental Impacts</b></p>	<p>This option redistributes some growth in south Norfolk and makes less use of the opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer on the approaches Norwich. This is a disadvantage in relation to option 1 but better than option 3. Growth to the north east would benefit from choice and flexibility about how to manage bus and car traffic. A reduced focus for some of the major growth on the A11 corridor in this option could have marginally less potential for significant impacts on European sites if the effects are not fully mitigated. This strategy overall also provides for significant enhancement to habitats a green infrastructure. Some improvement to the policy wording needs to be more explicit, <b>ensuring these positive aspects are recognised. The combined locations included as part of the policy give very positive scores, although the primary use of greenfield land is a disadvantage in absolute terms for all options, as is the potential impact on local landscapes where large scale growth is being promoted. Potential bus rapid transit indicated is a benefit to large parts of the existing area.</b></p> <p>The growth in Long Stratton has the potential to be less sustainable because of the potential to increase travel distances to other centres and to Norwich where most people work. The distance from Norwich for buses along an unimproved A140 corridor give less opportunity than option 1 to mitigate car journeys and make bus use more attractive.</p> <p>The scale of growth in Long Stratton is a small proportion of the overall requirement across the plan area and while locally significant particularly on the regionally important A140 corridor, in itself this does not significantly affect the sustainability of this option. In Long Stratton there will be local environmental improvements from a bypass.</p>
<p><b>Social Impacts</b></p>	<p><b>Social aspects score very positively, although the main focus will be on new residents in the areas indicated.</b> Will ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. Requires community engagement in <b>designing the new communities in a 'masterplanning' exercise to ensure effective delivery.</b></p> <p>Investment required for the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing.</p>
<p><b>Economic Impacts</b></p>	<p><b>The policy scores very positively. It performs a little worse than option 1, but, better than option 3 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors.</b></p> <p>The Long Stratton Bypass will improve strategic access along the A140 and may give a local boost to Long Stratton.</p>

<p><b>Overall summary:</b></p> <ul style="list-style-type: none"><li>• <b>Impacts</b></li><li>• <b>Possible mitigation measures</b></li><li>• <b>Recommended further research</b></li><li>• <b>Considering cumulative impacts</b></li></ul>	<p>Policy generally performs well. Growth in long Stratton not ideally located for strategic employment sites and is over 10 miles from Norwich city centre. The need to fund a bypass may divert investment from other areas and infrastructure needs although it will improve strategic access. Education solutions for high schools in Long Stratton and Wymondham are compromised. Uncertainty over the funding of a Long Stratton bypass could have consequent impacts on provision of and access to other social infrastructure also negatively impact in this way.</p> <p>Implementation of sustainable transport infrastructure and services will be key, <b>as this is one of the main requirements for growth set out in the regional spatial strategy.</b></p> <p>Need to investigate:</p> <ul style="list-style-type: none"><li>• <b>strengthening consideration of</b> landscape impacts</li><li>• and potential for innovative use of the railway.</li></ul>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

**Option Appraised: Locations for Growth and Change in the NPA  
Technical Consultation Option 3**

**SCORING SYSTEM:**

<b>++</b>	Very positive effects	<b>+</b>	Positive effects	<b>--</b>	Very negative effects	<b>-</b>	Negative effects	<b>+--</b>	Mixed effects
<b>N</b>	Neutral / insignificant effects			<b>?</b>	Uncertain effects	<b>Na</b>	Sustainability objective is not applicable to this option		

SA Objective	Decision making criteria	Short-Term 0-5 yrs	Medium Term 5-20 yrs	Long-Term 20+ yrs	Comments / Justification Inc. cumulative effects
<b>ENVIRONMENTAL</b>					
<b>ENV 1</b> To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?  Will it increase the proportion of journeys using modes other than the car?  Will it reduce the effect of HGV traffic on people and the environment?  Will it encourage more benign modes of travel?  Will new development be located such to reduce the need for people to travel?	N	+	+	The key differences between this and options 1 and 2 are a greater dispersal of development. This is likely to have implications for delivering infrastructure and services for sustainable transportation. As with the appraisal under this SA objective for option 2, the A140 has no public transport infrastructure and providing this to a high enough quality to encourage a modal shift would require significant investment in relation to options 1 and 2. Despite the relatively higher cost of providing this in relation to options 1 and 2, this infrastructure would still be essential to deliver major growth at Mangreen which is predicated on public transport. This accounts for the less positive assessment than option 1 under this SA objective.  Opportunities for sustainable travel are held back by dispersal of growth requiring investment in A11,

					<p>A140 (N&amp;S of Norwich <b>southern bypass</b>) and NE Norwich travel corridors.</p> <p>(Policy could be improved by more specific reference to <b>public transport</b> linkages <b>across the city in a SW-NE direction linking the suggested growth locations through the city centre</b>)</p> <p><del>There would be some barriers to promotion of walking and cycling, such as the Airport. In terms of considering the relative sustainability of growth options, these effects are of less strategic importance.</del></p>
<p><b>ENV 2</b> To improve the quality of the water environment</p>	<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>	N	N	N	<p>The water cycle study identifies the need for phosphate stripping for waste water from all major growth locations in the Norwich Policy Area. This is to ensure potentially negative effects of increased discharge into water courses would be mitigated. This investment would maintain current standards of water quality (or other standards as may be required by statutory discharge consents).</p> <p>Any potentially adverse impacts on the water environment would be mitigated either as part of projects to deliver the Green Infrastructure Strategy or by careful design at masterplanning and detailed planning stages.</p>
<p><b>ENV 3</b> To improve environmental amenity, including air quality.</p>	<p>Will it improve air quality?</p> <p>Will it reduce the emission of atmospheric pollutants?</p>	N	-	-	<p>The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local services and a more general emphasis on a modal shift away from car use as required by the East of England Plan. However, the level of growth which is required in the area means there is likely to be the</p>

					<p>potential for air quality to worsen nevertheless.</p> <p>There may be some local improvement to air quality in Long Stratton, although this effect alone is not strategically significant.</p>
<p><b>ENV 4</b> To maintain and enhance biodiversity and geodiversity.</p>	<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>	N	+	+	<p>Policy indicates priority to protecting, maintaining and enhancing environmental assets and habitats within the wording against each location suggested. There is specific reference to the characteristics of each location.</p> <p>The review of potential impacts on European designated sites (task 1) identifies three features that could be affected:</p> <ul style="list-style-type: none"> <li>• River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species</li> <li>• Broads SAC is sensitive to indirect potential effects of reduced air quality due to more traffic in the north east; increased visitor pressure and disturbance</li> <li>• Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure</li> </ul> <p>Increased traffic in the A11 resulting from the implementation of Option Three is expected to be significantly reduced when compared with options 1 and 2. Impacts on Breckland SAC and SPA with option 3 may still arise from proposed growth at Wymondham. Overall, potential significant impacts from this option on designated sites could be the least as it redistributes some major growth away</p>

					<p>from receptors on the A11 and in the west although there may be suitable mitigations which can be put in place to substantially reduce potential significant effects on designated sites such as measures could include the full implementation and integration of the Green Infrastructure Strategy, the Norfolk Ecological Network and meeting the Norfolk and Norwich BAP targets.</p> <p>(Could be strengthened by a general reference to habitat creation and environmental excellence.)</p>
<p><b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<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>		<p>+/-</p>	<p>+/-</p>	<p>Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape.</p> <p>There is potential for significant change to historic towns and landscapes and parts of the City of Norwich. The magnitude and significance of these potential changes will need evaluating using more detailed appraisals for historic landscapes, historic character and conservation areas.</p> <p>Full implementation of the green infrastructure strategy, and masterplanning for large scale growth locations would aim to be distinctive, high quality communities. The scale of greenfield development necessary to deliver the high number of new homes will inevitably have significant effects on rural landscapes. Using the current and future evidence on historic landscapes, the historic environment and cultural and heritage assets will be protected and enhanced.</p>

					<p>This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option</p> <p>(Consider whether landscape issues should be strengthened in general reference.)</p> <p>NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.</p>
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change.</p>	<p>Will it reduce emissions of greenhouse gases by reducing energy 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>		+	+	<p>Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. How well each option performs in terms of climate change mitigation will be mainly determined by the potential for major housing and jobs locations to use sustainable transport . The relative performance of this objective in the SA therefore reflects the assessment given to ENV1.</p> <p>More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO<sub>2</sub> generation. Combined heat and power is also positively promoted.</p> <p>There is no significant difference between the options in relation to making the area more resilient to the effects of climate change. The water cycle study and the strategic flood risk assessment both set a framework for future development that maximises water efficiency and identifies flood risk in the plan period with an additional allowance for</p>



					future flood events exacerbated by the effects of climate change.
<b>ENV 7</b> To avoid, reduce and manage flood risk.	Will it minimise the risk of flooding to people and property?  Can it incorporate new designs to adapt to possible flood risk?  Will it promote the use of sustainable drainage systems to reduce run off?		++	++	All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.  There is no evidence to indicate that this growth option would lead to any particular risks in terms of increased off-site/downstream flood risk that cannot adequately be mitigated through good design.
<b>ENV 8</b> To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources?  Will it minimise water consumption?		+	+	<del>Sustainable drainage systems and water saving is promoted but will still use water resources.</del>  The absolute effect on growth at locations in this option will be to exacerbate the pressure on the already stretched water resources of the East of England. However, there is no indication from the evidence studies that this option will lead to growth at places that will have a particularly significant effect, nor are any of the major growth locations particularly <b>unsuited</b> to the promotion of water minimisation measures.
<b>ENV 9</b> To make the best use of resources, including land and energy, and to minimise waste production.	Will it minimise consumption of materials and resources?  Will it promote the use of land in sustainable locations that has been previously developed?  Will it use land efficiently?  Will it minimise the loss of "greenfield" land?  Will it avoid the loss of good quality agricultural land and preserve soil resources?  Will it minimise energy consumption and promote energy		+/-	+/-	Maximises brownfield potential in the city within the limits of current urban capacity and commitments, and avoiding re-development of urban land that is required for competing uses such as employment, city centre shopping and leisure, and the distinctive green spaces and green links that contribute to the city's distinctiveness. At the time of this assessment (2009) greater use of brownfield land could be achieved but only with significant public investment to overcome highly constrained brownfield sites (such as Deal Ground and Utilities Site).  Major growth locations in all options will be at

	<p>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 eg. energy generation?</p>				<p>appropriate densities (higher in village/town centres) and through masterplanning guidance, all will promote and deliver energy and resource efficiency and would support local renewable energy generation for communities and employment locations.</p> <p>Each option avoids the loss of high quality agricultural land but each will require a significant amount of greenfield land.</p> <p>Major growth is predicated on high quality public transport services and a significant shift from people using their cars.</p> <p>Part of the Mangreen site may involve the reuse of land following the extraction of minerals.</p>
<b>SOCIAL</b>					
<p><b>SOC 1</b> To reduce poverty and social exclusion.</p>	<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>		+	+	<p>Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.</p>
<p><b>SOC 2</b> To maintain and improve the health of the whole population and promote healthy lifestyles.</p>	<p>Will it improve access to high quality health facilities?</p> <p>Will it encourage healthy lifestyles? How?</p> <p>Will it provide adequate health infrastructure for existing and new communities?</p> <p>Will the links between poorer health and deprivation be</p>		++	++	<p>It is likely that major green field developments are better suited to designing in green infrastructure from initial masterplanning and threes could give better opportunities for walking, cycling and outdoor recreation. There is no significant difference between the options on new settlements/large-scale urban extensions and all places are able to promotes good links to the surrounding countryside</p>

	<p>addressed?</p> <p>Will links to the countryside be maintained and enhanced?</p>				<p>and green infrastructure, walking and cycling.</p> <p>Health care provision promoted.</p> <p>(But will need to investigate the scale and type of primary health care that can be supported with 'enhanced local services' with 1,000 dwellings at Easton/Costessy.)</p>
<p><b>SOC 3</b> To improve education and skills.</p>	<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>There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk.</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>Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings.</p> <p>The number of new affordable homes in Long Stratton could well be suppressed because of diversion of funding to the bypass. In this option, major growth at Long Stratton makes up just over 6% of the total Norwich Policy Area new housing requirement.</p> <p>This objective scores very positively because there is a high degree of certainty that affordable housing can be met.</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>There is no indication that development at the locations promoted by this option will lead to negative effects on community cohesion, and there should be the potential at these locations for good masterplanning and design to support community cohesion.</p> <p>The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc.</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>Promotes growth that is well-related to strategic employment locations and/or well-connected with them and the city centre. Each growth location under any option will also offer a range of local employment opportunities.</p> <p>A central feature of the joint core strategy under any option is to develop the knowledge economy as well as increasing aspirations and opportunities for people with a wide range of education or skills training. This will support people at all skill and earnings levels.</p> <p>Long Stratton and Mangreen are less well-related or connected with strategic employment locations. For Mangreen bus links are not well developed.</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</p>		+	+	<p>This policy is not location specific as it applies across the plan area. Promotes high quality design, interactive approach to master planning and wide range of local facilities.</p>

	neighbourhoods?				
<b>SOC 8</b> To improve accessibility to essential services, facilities and jobs.	<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>Major growth locations in this option have a greater likelihood of being places which can support good access to strategic employment locations and other, larger centres.</p> <p>Some major growth locations are co-located with strategic employment areas. New growth locations will be based on existing smaller centres and will grow so a wider range of new facilities can be promoted.</p> <p>In this option there is more growth on a smaller scale than option 1 and these are less likely to support high quality bus rapid transit and local services. The education solution for Wymondham at this level of growth causes high school capacity problems.</p> <p>Sites have access to local services although the distribution will mean that for some locations the choice is limited and in some cases the bus links are poor and a challenge to improve. (eg Long Stratton to Norwich)</p>
<b>ECONOMIC</b>					
<b>EC 1</b> To encourage sustained economic growth.	<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</p>		?	+	<p>Unsure of the impacts on the economy and economic diversity of introducing a further strategic employment site on A140 corridor south of A47.</p> <p>There is less certainty that economic growth would be delivered as well as for options 1 or 2.</p>

	improve economic diversity?				
<b>EC 2</b> To encourage and accommodate both indigenous and inward investment.	<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>Promotes strategic employment areas including provision for key sectors.</p> <p>As above</p>
<b>EC 3</b> To encourage efficient patterns of movement in support of economic growth.	<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>		+	+	Growth is more dispersed in this option with more limited access to a choice of strategic employment sites, especially by bus, walking and cycling.
<b>EC 4</b> To improve the social and environmental performance of the economy.	<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>		+	+	Will attract new investment help maintain existing businesses and employment. Some Co-location of employment and dwellings.

	Will it provide employment in the best locations to serve urban and rural residents?				
--	--------------------------------------------------------------------------------------	--	--	--	--

**Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?**

**POLICY OPTION: Locations for Growth and Change in the NPA**  
**Technical Consultation Option 3**

•

<b>Environmental Impacts</b>	<p>Overall beneficial, but may not easily achieve the high quality public transport system necessary to limit CO<sub>2</sub> emissions and manage travel demand from the planned scale of growth.</p> <p>This option would redistribute growth in South Norfolk more than option 2 and, apart from growth at Wymondham, would not use the opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer on the approaches Norwich. This is a disadvantage in relation to options 1 and 2. Growth to the north east would benefit from choice and flexibility about how to manage bus and car traffic. A much reduced focus for some of the major growth on the A11 corridor in this option may avoid potential for significant impacts on European sites. This strategy overall also provides for significant enhancement to habitats and green infrastructure. Some improvement to the policy wording needs to be more explicit, ensuring these positive aspects are recognised. The combined locations included as part of the policy give very positive scores, although the primary use of greenfield land is a disadvantage in absolute terms for all options, as is the potential impact on local landscapes where large scale growth is being promoted. Potential bus rapid transit indicated is a benefit to large parts of the existing area.</p> <p>The growth in Long Stratton has the potential to be less sustainable because of the potential to increase travel distances to other centres and to Norwich where most people work. The distance from Norwich for buses along an unimproved A140 corridor give less opportunity than option 1 to mitigate car journeys and make bus use more attractive.</p> <p>The scale of growth in Long Stratton is a small proportion of the overall requirement across the plan area and while locally significant particularly on the regionally important A140 corridor, in itself this does not significantly affect the sustainability of this option. In Long Stratton there will be local environmental improvements from a bypass.</p>
------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Social Impacts</b>	<p>Overall beneficial, but some development not accessible to larger centres and services. Dispersed transport and education infrastructure costly and will impact on the ability to provide other essential infrastructure and affordable housing.</p> <p>Social aspects score very positively, although the main focus will be on new residents in the areas indicated. Will ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. Requires community engagement in designing the new communities in a 'masterplanning' exercise to ensure effective delivery.</p> <p>Investment required for the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing.</p>
<b>Economic Impacts</b>	<p>Uncertainty over the timing and impact of promoting a further strategic employment site.</p> <p>The policy scores very positively. It performs worse than options 1 and 2 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors.</p> <p>The long Stratton Bypass will improve strategic access along the A140 and may give a local boost to Long Stratton.</p>
<p><b>Overall summary:</b></p> <ul style="list-style-type: none"> <li>• Impacts</li> <li>• Possible mitigation measures</li> <li>• Recommended further research</li> <li>• Considering cumulative impacts</li> </ul>	<p>Generally positive impacts. Score held down by the ability to provide high quality public transport, the costs of infrastructure and the consequent impacts on provision of and access to other social infrastructure. Uncertainty over the funding of a Long Stratton bypass could also negatively impact in this way.</p> <p>Implementation of sustainable transport infrastructure and services will be key, as this is one of the main requirements for growth set out in the regional spatial strategy.</p> <p>Need to investigate:</p> <ul style="list-style-type: none"> <li>• strengthening consideration of landscape impacts</li> <li>• and potential for innovative use of the railway.</li> <li>• Environmental Consequences of implementing public transport priority and the scale of enhancements on A140 in the city.</li> <li>•</li> </ul>



Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

**Option Appraised: Locations for Growth and Change in the NPA  
Technical Consultation Option 2a**

**SCORING SYSTEM:**

<b>++</b>	Very positive effects	<b>+</b>	Positive effects	<b>--</b>	Very negative effects	<b>-</b>	Negative effects	<b>+--</b>	Mixed effects
<b>N</b>	Neutral / insignificant effects			<b>?</b>	Uncertain effects	<b>Na</b>	Sustainability objective is not applicable to this option		

SA Objective	Decision making criteria	Short-Term 0-5 yrs	Medium Term 5-20 yrs	Long-Term 20+ yrs	Comments / Justification Inc. cumulative effects
<b>ENVIRONMENTAL</b>					
<b>ENV 1</b> To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?  Will it increase the proportion of journeys using modes other than the car?  Will it reduce the effect of HGV traffic on people and the environment?  Will it encourage more benign modes of travel?  Will new development be located such to reduce the need for people to travel?	N	+/-	+/-	The key differences between this and options 1,2 and 3 are a slightly lower scale of allocations, taking into account updated information on existing commitments, and a greater dispersal of development. The greater degree of dispersal is likely to have implications for delivering infrastructure and services for sustainable transportation. The grouping of a number of areas for modest growth on the A11 corridor gives an opportunity to sustain reasonable bus services on this route but do not individually meet the critical mass necessary to deliver Bus Rapid Transit that could be achieved through options 1 & 2. The A140 has no existing public transport infrastructure and providing this to a high enough quality to encourage a modal shift would require significant investment in relation to options 1 and 2. Despite the relatively higher cost of providing this in relation to options 1

					<p>and 2, this infrastructure would be essential to deliver sustainable growth at Mangreen which is predicated on public transport. This accounts for the less positive assessment than option 1 under this SA objective. Furthermore, unless secondary education issues can be resolved satisfactorily, the more dispersed approach is likely to lead to longer school trips for many students.</p> <p>Opportunities for sustainable travel are held back by dispersal of growth requiring investment in A11, A140 (N&amp;S of Norwich southern bypass) and NE Norwich travel corridors. Early investment in transport infrastructure to release Long Stratton may be superseded by further measures required to serve development at Mangreen later in the plan period.</p> <p>(Policy could be improved by more specific reference to public transport linkages across the city in linking the suggested growth locations through the city centre)</p> <p>There would be some barriers to promotion of walking and cycling, such as the Airport. In terms of considering the relative sustainability of growth options, these effects are of less strategic importance.</p>
<p><b>ENV 2</b> To improve the quality of the water environment</p>	<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>	N	N	N	<p>The water cycle study identifies the need for phosphate stripping for waste water from all major growth locations in the Norwich Policy Area. This is to ensure potentially negative effects of increased discharge into water courses would be mitigated. This investment would maintain current standards of water quality (or other standards as may be required by statutory discharge consents).</p>

					Any potentially adverse impacts on the water environment would be mitigated either as part of projects to deliver the Green Infrastructure Strategy or by careful design at masterplanning and detailed planning stages.
<b>ENV 3</b> To improve environmental amenity, including air quality.	Will it improve air quality?  Will it reduce the emission of atmospheric pollutants?	N	-	-	The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local services and a more general emphasis on a modal shift away from car use as required by the East of England Plan. However, the level of growth which is required in the area means there is likely to be the potential for air quality to worsen nevertheless.  There may be some local improvement to air quality in Long Stratton, although this effect alone is not strategically significant.
<b>ENV 4</b> To maintain and enhance biodiversity and geodiversity.	Will it conserve / enhance natural or semi-natural habitats, and promote habitat connections?  Is it likely to have a significant effect on sites designated for international, national or local importance?  Will it conserve / enhance species diversity, and in particular avoid harm to protected species?	N	+/-	+/-	Policy indicates priority to protecting, maintaining and enhancing environmental assets and habitats within the wording against each location suggested. There is specific reference to the characteristics of each location.  The review of potential impacts on European designated sites (task 1) identifies three features that could be affected: <ul style="list-style-type: none"> <li>• River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species</li> <li>• Broads SAC is sensitive to indirect potential effects of reduced air quality due to more</li> </ul>

					<p>traffic in the north east; increased visitor pressure and disturbance</p> <ul style="list-style-type: none"> <li>• Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure</li> </ul> <p>Increased traffic in the A11 resulting from the implementation of Option 2a is expected to be significantly reduced when compared with options 1 and 2, but not as great as Option 3. Impacts on Breckland SAC and SPA with option 2a may still arise from proposed growth at Wymondham.</p> <p>Overall, potential significant impacts from this option on designated sites could be less than all except option 3 as it redistributes some major growth away from receptors on the A11 and in the west although there may be suitable mitigations which can be put in place to substantially reduce potential significant effects on designated sites. Such measures could include the full implementation and integration of the Green Infrastructure Strategy, the Norfolk Ecological Network and meeting the Norfolk and Norwich BAP targets.</p> <p>(Policy could be strengthened by a general reference to habitat creation and environmental excellence.)</p>
<p><b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and</p>	<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>Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape.</p>

<p>the historic environment.</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>				<p>There is potential for significant change to historic towns and landscapes and parts of the City of Norwich. The magnitude and significance of these potential changes will need evaluating using more detailed appraisals for historic landscapes, historic character and conservation areas.</p> <p>Full implementation of the green infrastructure strategy, and masterplanning for large scale growth locations would aim to be distinctive, high quality communities. The scale of greenfield development necessary to deliver the high number of new homes will inevitably have significant effects on rural landscapes. Using the current and future evidence on historic landscapes, the historic environment and cultural and heritage assets will be protected and enhanced.</p> <p>This option is no better or worse than the other three and the appraisal concludes there are mixed effects for this option</p> <p>(Consider whether landscape issues should be strengthened in general reference.)</p> <p>NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.</p>
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change.</p>	<p>Will it reduce emissions of greenhouse gases by reducing energy 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>+/-</p>	<p>+/-</p>	<p>Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. How well each option performs in terms of climate change mitigation will be mainly determined by the potential for major housing and jobs locations to use</p>

	Will it ensure that the risks to lives, land and property are minimised?				<p>sustainable transport . The relative performance of this objective in the SA therefore reflects the assessment given to ENV1.</p> <p>More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO<sub>2</sub> generation. Combined heat and power is also positively promoted.</p> <p>There is no significant difference between the options in relation to making the area more resilient to the effects of climate change. The water cycle study and the strategic flood risk assessment both set a framework for future development that maximises water efficiency and identifies flood risk in the plan period with an additional allowance for future flood events exacerbated by the effects of climate change.</p> <p>As the option has a more dispersed pattern of growth it will prove more of a challenge to deliver local renewable energy generation</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>		++	++	<p>All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.</p> <p>There is no evidence to indicate that this growth option would lead to any particular risks in terms of increased off-site/downstream flood risk that cannot adequately be mitigated through good design.</p>
<b>ENV 8</b> To provide for sustainable use and sources of	<p>Will it conserve groundwater resources?</p> <p>Will it minimise water consumption?</p>		+	+	<p><del>Sustainable drainage systems and water saving is promoted but will still use water resources.</del></p> <p>The absolute effect on growth at locations in this</p>

water supply.					option will be to exacerbate the pressure on the already stretched water resources of the East of England. However, there is no indication from the evidence studies that this option will lead to growth at places that will have a particularly significant effect, nor are any of the major growth locations particularly <b>unsuited</b> to the promotion of water minimisation measures.
<b>ENV 9</b> To make the best use of resources, including land and energy, and to minimise waste production.	Will it minimise consumption of materials and resources? Will it promote the use of land in sustainable locations that has been previously developed? Will it use land efficiently? Will it minimise the loss of "greenfield" land? Will it avoid the loss of good quality agricultural land and preserve soil resources? Will it minimise energy consumption and promote energy efficiency? Will it promote the use of renewable energy sources? Will it lead to less waste being produced? Will it lead to less waste being disposed, by promoting more recycling and composting? Will it increase waste recovery for other means eg. energy generation?		+/-	+/-	Maximises brownfield potential in the city within the limits of current urban capacity and commitments, and avoiding re-development of urban land that is required for competing uses such as employment, city centre shopping and leisure, and the distinctive green spaces and green links that contribute to the city's distinctiveness. At the time of this assessment (2009) greater use of brownfield land could be achieved but only with significant public investment to overcome highly constrained brownfield sites (such as Deal Ground and Utilities Site). Major growth locations in all options will be at appropriate densities (higher in village/town centres) and through masterplanning guidance, all will promote and deliver energy and resource efficiency and would support local renewable energy generation for communities and employment locations. Each option avoids the loss of high quality agricultural land but each will require a significant amount of greenfield land. Major growth is predicated on high quality public transport services and a significant shift from people using their cars.

					<p>Part of the Mangreen site may involve the reuse of land following the extraction of minerals. This might also offer the opportunity to create a community wide ground source heat pump system.</p> <p>As option 2a has a more dispersed pattern of growth than other options it will prove more of a challenge to deliver local renewable energy generation and high quality bus services.</p>
<b>SOCIAL</b>					
<p><b>SOC 1</b> To reduce poverty and social exclusion.</p>	<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>		+	+	<p>Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.</p>
<p><b>SOC 2</b> To maintain and improve the health of the whole population and promote healthy lifestyles.</p>	<p>Will it improve access to high quality health facilities?</p> <p>Will it encourage healthy lifestyles? How?</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>		++	++	<p>It is likely that major green field developments are better suited to designing in green infrastructure from initial masterplanning and these could give better opportunities for walking, cycling and outdoor recreation. There is no significant difference between the options on new settlements/large-scale urban extensions and all places are able to promote good links to the surrounding countryside and green infrastructure, walking and cycling.</p> <p>Health care provision promoted.</p> <p>(But will need to investigate the scale and type of primary health care that can be supported with 'enhanced local services' to assess the impacts of the more dispersed pattern of growth</p>
<p><b>SOC 3</b> To improve</p>	<p>Will it improve qualifications and skills for both young people and amongst the workforce?</p>				<p>There is no single and obvious solution to meet the secondary education need of the more dispersed</p>



<p>education and skills.</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>pattern of growth in South Norfolk.</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>Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings.</p> <p>The number of new affordable homes in Long Stratton is likely to be suppressed because of diversion of funding to the bypass. In this option, major growth at Long Stratton makes up just over 8% of the total Norwich Policy Area new housing allocation requirement. Overcoming this and choosing the target level of affordable housing is likely to be dependent on securing funding from the Homes and Communities Agency</p> <p>This objective scores very positively because there is a high degree of certainty that affordable housing can be met. However, if the more dispersed approach makes this a more expensive option to deliver in terms of infrastructure, it may have some impact on the level of affordable housing which can be secured through developer contributions, unless Homes and Communities Agency funding is available..</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>There is no indication that development at the locations promoted by this option will lead to negative effects on community cohesion, and there should be the potential at these locations for good masterplanning and design to support community cohesion.</p> <p>The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc. uncertainties over the way in which secondary education can be provided across the more dispersed pattern of growth in South Norfolk leads to corresponding uncertainties over this aspect the community identity.</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>Promotes growth that is well-related to strategic employment locations and/or well-connected with them and the city centre. Each growth location under any option will also offer a range of local employment opportunities.</p> <p>A central feature of the joint core strategy under any option is to develop the knowledge economy as well as increasing aspirations and opportunities for people with a wide range of education or skills training. This will support people at all skill and earnings levels.</p> <p>Long Stratton and Mangreen are not well-related or connected with existing strategic employment areas, compared with other locations. In the long run Mangreen may offer the potential for some local employment.</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>This policy is not location specific as it applies across the plan area. Promotes high quality design, interactive approach to master planning and wide range of local facilities.</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>Major growth locations in this option have a greater likelihood of being places which can support good access to strategic employment locations and other, larger centres.</p> <p>Some major growth locations are co-located with strategic employment areas. New growth locations will be based on existing smaller centres and will grow so a wider range of new facilities can be promoted.</p> <p>The distribution of smaller scale growth along the A11 can support high quality bus provision which will provide access to strategic employment sites and higher order services. The education solution for Wymondham and Mangreen at this level of growth causes high school capacity problems. The effects of these factors are uncertain.</p> <p>Sites have access to local services although the distribution will mean that for some locations the choice is limited and in some cases the bus links are poor and a challenge to improve. (eg Long Stratton to Norwich)</p>
<p><b>ECONOMIC</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>There is less certainty that economic growth would be delivered as well as for options 1 or 2 but is likely to be better than option3 because of the increased emphasis on A11 corridor close to strategic</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>				employment locations.
<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>Promotes strategic employment areas including provision for key sectors.</p> <p>As above</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>Growth is more dispersed in this option making access through the delivery of high quality public transport more difficult. The grouping of locations along the A11 corridor still provides an opportunity to deliver high quality public transport access, but not to the scale of options 1 or 2.</p>
<p><b>EC 4</b> To improve the social and environmental</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 attract new investment help maintain existing businesses and employment. Some Co-location of employment and dwellings.</p>

performance of the economy.	Will it attract new investment and skilled workers to the area?  Will it maintain existing business and employment provision?  Will it provide employment in the best locations to serve urban and rural residents?				
-----------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?

POLICY OPTION: **Locations for Growth and Change in the NPA (Option 2a)**

-

<b>Environmental Impacts</b>	<p>Overall beneficial, but may not easily achieve the high quality public transport system necessary to limit CO<sub>2</sub> emissions and manage travel demand from the planned scale of growth. A high quality service in the south west of the NPA is dependent on the cumulative support of the different locations for growth.</p> <p>This option would redistribute growth in South Norfolk more than options 1, 2 and 3, and, compared with options 1 and 2, would not make such good use of the opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer on the approaches Norwich. In this regard, however, it performs better than option 3. Growth to the north east would benefit from choice and flexibility about how to manage travel demand by bus car and rail. A reduced focus for some of the major growth on the A11 corridor in this option may avoid potential for significant impacts on European sites. This strategy overall also provides for significant enhancement to habitats and green infrastructure. Some improvement to the policy wording needs to be more explicit, ensuring these positive aspects are recognised. The combined locations included as part of the policy give very positive scores, although the primary use of greenfield land is a disadvantage in absolute terms for all options, as is the potential impact on local landscapes where large scale growth is being promoted. The dispersed nature of the option in South Norfolk does not provide potential for bus rapid transit which has been indicated is a benefit to large parts of the existing area.</p> <p>The growth in Long Stratton has the potential to be less sustainable because of the potential to increase travel distances to other centres and to Norwich where most people work. The distance from Norwich for buses along an unimproved A140 corridor give less opportunity than option 1 to mitigate car journeys and make bus use more attractive. It does, however, offer some local environmental improvements in Long Stratton.</p> <p>The scale of growth in Long Stratton is a small proportion of the overall requirement across the plan area and while locally significant particularly on the regionally important A140 corridor, in itself this does not significantly affect the sustainability of this option. In Long Stratton there will be local environmental improvements from a bypass.</p> <p>Ref to Historic landscape assessment on all 4 options</p>
------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Social Impacts</b>	<p>Overall beneficial, but some development not accessible to larger centres and services. Dispersed transport infrastructure costly and will impact on the ability to provide other essential infrastructure and affordable housing. <b>There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk. In this respect the option has uncertain educational consequences.</b></p> <p><b>Social aspects score very positively, although the main focus will be on new residents in the areas indicated.</b> Will ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. Requires community engagement in <b>designing the new communities in a 'masterplanning' exercise to ensure effective</b> delivery.</p> <p>Investment required for the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing. <b>Achievement of the target level may be dependent on support from the homes and communities agency and what the the the the the</b></p>
<b>Economic Impacts</b>	<p>Uncertainty over the provision, timing and impact of promoting a further strategic employment site.</p> <p><b>Although the policy scores very positively, it performs worse than options 1, 2 &amp; 3 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors.</b></p> <p>The Long Stratton Bypass will improve strategic access along the A140 and my give a local boost to Long Stratton.</p>
<p><b>Overall summary:</b></p> <ul style="list-style-type: none"> <li>• <b>Impacts</b></li> <li>• <b>Possible mitigation measures</b></li> <li>• <b>Recommended further research</b></li> <li>• <b>Considering cumulative impacts</b></li> </ul>	<p>Generally positive impacts. Score held down by the ability to provide high quality public transport, the costs of infrastructure and the consequent impacts on provision of and access to other social infrastructure. Uncertainty over the funding of a Long Stratton bypass could also negatively impact in this way.</p> <p>Implementation of sustainable transport infrastructure and services will be important, <b>as this is one of the main requirements for growth set out in the regional spatial strategy.</b></p> <p>Need to investigate:</p> <ul style="list-style-type: none"> <li>• <b>strengthening consideration of</b> landscape impacts</li> <li>• and potential for innovative use of the railway.</li> <li>• Secondary education solution</li> <li>• Environmental Consequences of implementing public transport priority and the scale of enhancements on A140 in the city.</li> </ul>



Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

**Option Appraised: Locations for Growth and Change in the NPA  
Technical Consultation Favoured Option (Option 2+)**

**SCORING SYSTEM:**

<b>++</b>	Very positive effects	<b>+</b>	Positive effects	<b>--</b>	Very negative effects	<b>-</b>	Negative effects	<b>+--</b>	Mixed effects
<b>N</b>	Neutral / insignificant effects			<b>?</b>	Uncertain effects	<b>Na</b>	Sustainability objective is not applicable to this option		

SA Objective	Decision making criteria	Short-Term 0-5 yrs	Medium Term 5-20 yrs	Long-Term 20+ yrs	Comments / Justification Inc. cumulative effects
<b>ENVIRONMENTAL</b>					
<b>ENV 1</b> To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?  Will it increase the proportion of journeys using modes other than the car?  Will it reduce the effect of HGV traffic on people and the environment?  Will it encourage more benign modes of travel?  Will new development be located such to reduce the need for people to travel?	N	+/-	+	The key differences between this and options 1,2 and 3 is a reduced scale of development which arises from updated housing monitoring information. This option shares the same growth locations as option 2. The grouping of a number of areas for modest growth on the A11 corridor gives an opportunity to sustain reasonable bus services on this route but do not individually meet the critical mass necessary to deliver Bus Rapid Transit that could be achieved through options 1 & 2. Long Stratton is remote from Norwich and strategic employment sites and the A140 has no existing public transport infrastructure. Some small scale improvements would be required but even so growth in Long Stratton is less attractive as a public transport based growth location.  (Policy could be improved by more specific

					reference to public transport linkages across the city in a south west north east direction, linking the suggested growth locations through the city centre)
<b>ENV 2</b> To improve the quality of the water environment	Will it improve the quality of the water environment (streams, rivers, lakes etc)?  Will it help to support wetland habitats and species?	N	N	N	<p>The water cycle study identifies the need for phosphate stripping for waste water from all major growth locations in the Norwich Policy Area. This is to ensure potentially negative effects of increased discharge into water courses would be mitigated. This investment would maintain current standards of water quality (or other standards as may be required by statutory discharge consents).</p> <p>The scale of development promoted through this option is less than the previous options. Therefore impacts on the water environment are correspondingly reduced</p> <p>Any potentially adverse impacts on the water environment would be mitigated either as part of projects to deliver the Green Infrastructure Strategy or by careful design at masterplanning and detailed planning stages.</p>
<b>ENV 3</b> To improve environmental amenity, including air quality.	Will it improve air quality?  Will it reduce the emission of atmospheric pollutants?	N	-	-	<p>The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local services and a more general emphasis on a modal shift away from car use as required by the East of England Plan. However, the level of growth which is required in the area means there is likely to be the potential for air quality to worsen nevertheless.</p> <p>The scale of development promoted through this option is less than the previously assessed. The</p>

					<p>potential for impacts on air quality and pollutants is less.</p> <p>There may be some local improvement to air quality in Long Stratton, although this effect alone is not strategically significant.</p>
<p><b>ENV 4</b> To maintain and enhance biodiversity and geodiversity.</p>	<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>	N	+/-	+/-	<p>Policy indicates priority to protecting, maintaining and enhancing environmental assets and habitats within the wording against each location suggested. There is specific reference to the characteristics of each location.</p> <p>The review of potential impacts on European designated sites (task 1) identifies three features that could be affected:</p> <ul style="list-style-type: none"> <li>• River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species</li> <li>• Broads SAC is sensitive to indirect potential effects of reduced air quality due to more traffic in the north east; increased visitor pressure and disturbance</li> <li>• Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure</li> </ul> <p>Increased traffic in the A11 resulting from the implementation of Option 2+_ is equivalent to Option 2a is expected to be less when compared with options 1 and 2, but not as great as Option 3. Impacts on Breckland SAC and SPA with option 2+ may still arise from</p>

					<p>proposed growth at Wymondham. Overall, potential significant impacts from this option on designated sites could be less as the overall scale of growth planned is less. The Option reduces major growth the A11 and in the west although there may be suitable mitigations which can be put in place to substantially reduce potential significant effects on designated sites. Such measures could include the full implementation and integration of the Green Infrastructure Strategy, the Norfolk Ecological Network and meeting the Norfolk and Norwich BAP targets.</p> <p>(Policy could be strengthened by a general reference to habitat creation and environmental excellence.)</p>
<p><b>ENV 5</b> To maintain and enhance the quality of landscapes, townscapes and the historic environment.</p>	<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>		+/-	+/-	<p>Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape.</p> <p>There is potential for significant change to historic towns and landscapes and parts of the City of Norwich. The magnitude and significance of these potential changes will need evaluating using more detailed appraisals for historic landscapes, historic character and conservation areas.</p> <p>Full implementation of the green infrastructure strategy, and masterplanning for large scale growth locations would aim to be distinctive, high quality communities. The scale of greenfield development necessary to deliver the high number of new homes will inevitable have significant effects on rural</p>

					<p>landscapes. Using the current and future evidence on historic landscapes, the historic environment and cultural and heritage assets will be protected and enhanced.</p> <p>The scale of development promoted through this option is less than the previously assessed partly arising from efficient use of brownfield land. Less greenfield development is promoted compared to other options and gives the opportunity to have less impact on rural and urban landscapes. However there will still be some impacts and the appraisal concludes that there are mixed effects for this option. (Consider whether landscape issues should be strengthened in general reference.)</p> <p>NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.</p>
<p><b>ENV 6</b> To adapt to and mitigate against the impacts of climate change.</p>	<p>Will it reduce emissions of greenhouse gases by reducing energy 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>		+/-	+	<p>Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. How well each option performs in terms of climate change mitigate will be mainly determined by the potential for major housing and jobs locations to use sustainable transport. The relative performance of this objective in the SA therefore reflects the assessment given to ENV1.</p> <p>More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO<sub>2</sub> generation. Combined heat and power is also positively promoted.</p>

					<p>There is no significant difference between the options in relation to making the area more resilient to the effects of climate change. The water cycle study and the strategic flood risk assessment both set a framework for future development that maximises water efficiency and identifies flood risk in the plan period with an additional allowance for future flood events exacerbated by the effects of climate change.</p> <p>As the option has a more dispersed pattern of growth in the southern part of the Norwich Policy Area, it will prove more of a challenge to deliver local renewable energy generation than options 1, 2 and 3.</p>
<p><b>ENV 7</b> To avoid, reduce and manage flood risk.</p>	<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>		++	++	<p>All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.</p> <p>There is no evidence to indicate that this growth option would lead to any particular risks in terms of increased off-site/downstream flood risk that cannot adequately be mitigated through good design.</p> <p>The lesser scale of development will help ensure impacts can be mitigated.</p>
<p><b>ENV 8</b> To provide for sustainable use and sources of water supply.</p>	<p>Will it conserve groundwater resources?</p> <p>Will it minimise water consumption?</p>		+	+	<p>The absolute effect on growth at locations in this option will be to exacerbate the pressure on the already stretched water resources of the East of England. As this option promotes less growth, effects will be reduced. There is no indication from the evidence studies that this option will lead to growth at places that will have a particularly</p>

					significant effect, nor are any of the major growth locations particularly <b>unsuited</b> to the promotion of water minimisation measures.
<p><b>ENV 9</b> To make the best use of resources, including land and energy, and to minimise waste production.</p>	<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 eg. energy generation?</p>		+/-	+/-	<p>Maximises brownfield potential in the city within the limits of current urban capacity and commitments, and avoiding re-development of urban land that is required for competing uses such as employment, city centre shopping and leisure, and the distinctive green spaces and green links that contribute to the city's distinctiveness. At the time of this assessment (2009) greater use of brownfield land could be achieved but only with significant public investment to overcome highly constrained brownfield sites (such as Deal Ground and Utilities Site).</p> <p>Major growth locations in all options will be at appropriate densities (higher in village/town centres) and through masterplanning guidance, all will promote and deliver energy and resource efficiency and would support local renewable energy generation for communities and employment locations.</p> <p>Each option avoids the loss of high quality agricultural land but each will require a significant amount of greenfield land, although less for this option.</p> <p>Major growth is predicated on high quality public transport services and a significant shift from people using their cars.</p> <p>Like option 2a this option has a more dispersed pattern of growth than other options it will prove more of a challenge to deliver local renewable energy generation.</p>

SOCIAL					
<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>		+	+	Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.
<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? How?</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>		++	++	<p>It is likely that major green field developments are better suited to designing in green infrastructure from initial masterplanning and these could give better opportunities for walking, cycling and outdoor recreation. There is no significant difference between the options on new settlements/large-scale urban extensions and all places are able to promote good links to the surrounding countryside and green infrastructure, walking and cycling.</p> <p>Health care provision promoted.</p> <p>(But will need to investigate the scale and type of primary health care that can be supported with 'enhanced local services' to assess the impacts of the more dispersed pattern of growth)</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>		?	?	There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk.



	Will links between lower levels of education and deprivation be addressed?				
<b>SOC 4</b> To provide the opportunity to live in a decent, suitable and affordable home.	<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>Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings.</p> <p>The number of new affordable homes in Long Stratton will be suppressed because of diversion of funding to the bypass. In this option, major growth at Long Stratton makes up just over 8% of the total Norwich Policy Area new housing requirement.</p> <p>This objective scores very positively because there is a high degree of certainty that affordable housing can be met.</p>
<b>SOC 5</b> To build community identity, improve social welfare, and reduce crime and anti-social activity.	<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>This option builds on existing communities and offers the opportunity for new growth to both draw on existing community facilities and activities and end enhance the facilities available to the existing residents and businesses.</p> <p>The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc.</p>
<b>SOC 6</b> To offer more opportunities for rewarding and satisfying employment for all.	<p>Will it reduce unemployment overall?</p> <p>Will it help to improve earnings?</p>		++	++	<p>Promotes growth that is well-related to strategic employment locations and/or well-connected with them and the city centre. The smaller growth areas will only have a limited ability to provide a range of local employment opportunities as compared the largest growth locations.</p> <p>A central feature of the joint core strategy under any</p>

					<p>option is to develop the knowledge economy as well as increasing aspirations and opportunities for people with a wide range of education or skills training. This will support people at all skill and earnings levels.</p> <p>Long Stratton is less well-related or connected with strategic employment locations.</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>This policy is not location specific as it applies across the plan area. Promotes high quality design, interactive approach to master planning and wide range of local facilities.</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>Major growth locations in this option have a greater likelihood of being places which can support good access to strategic employment locations and other, larger centres.</p> <p>Some major growth locations are co-located with strategic employment areas. New growth locations will be based on existing smaller centres and will grow so a wider range of new facilities can be promoted.</p> <p>In this option there is more growth on a smaller scale than the other options and these are less likely to support a wide range of local services. The distribution of smaller scale growth along the A11 can support high quality bus provision which will provide access to strategic employment sites and higher order services. The education solution for this option looks to be complex and less than ideal, but is currently being investigated. . The effects of these factors are uncertain.</p>

					Sites have access to local services although the distribution will mean that for some locations the choice is limited and in the case of Long Stratton the bus link is relatively poor and a challenge to improve.
<b>ECONOMIC</b>					
<b>EC 1</b> To encourage sustained economic growth.	<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>		?	+	There is less certainty that economic growth would be delivered as well as for options 1, 2 but is likely to be better than option 2a or 3 because of the increased emphasis on A11 corridor close to strategic employment locations.
<b>EC 2</b> To encourage and accommodate both indigenous and inward investment.	<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>		++	++	As above
<b>EC 3</b> To encourage efficient patterns of movement in support of economic growth.	<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>		+	+	Growth is more dispersed in this option making walking and cycling access to services and jobs more difficult. The grouping of locations along the A11 corridor still provides an opportunity to deliver high quality public transport access, but not to the scale of options 1 or 2.

	<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>		+	+	<p>Will attract new investment help maintain existing businesses and employment. Some Co-location of employment and dwellings.</p>

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?

POLICY OPTION: **Locations for Growth and Change in the NPA (Option 2+)**

•

**Environmental Impacts**

This option promotes a lesser scale of growth (12.5%) compared to options previously considered. In this respect the impacts of the option are reduced.

Overall beneficial, but may not easily achieve the high quality public transport system necessary to limit CO<sub>2</sub> emissions and manage travel demand from the planned scale of growth. A high quality service in the south west of the NPA is dependent on the cumulative support of the different locations for growth.

This option would redistribute growth in South Norfolk more than options 1, 2 and 3, and, compared with options 1 and 2, would not make such good use of the opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer on the approaches Norwich. This is a consequence of the reduced allocation compared to the other options limiting the potential patronage for buses and the more dispersed growth in this area. Growth to the north east would benefit from choice and flexibility about how to manage travel demand by bus car and rail. A reduced focus for some of the major growth on the A11 corridor in this option may avoid potential for significant impacts on European sites. This strategy overall also provides for significant enhancement to habitats and green infrastructure. Some improvement to the policy wording needs to be more explicit, ensuring these positive aspects are recognised. The combined locations included as part of the policy give very positive scores, although the primary use of greenfield land is a disadvantage in absolute terms for all options, as is the potential impact on local landscapes where large scale growth is being promoted. The dispersed nature of the option in South Norfolk and the reduced allocation makes it harder to realise the potential for bus rapid transit than options 1 & 2, but performs better than option 3 which has been indicated is a benefit to large parts of the existing area.

The growth in Long Stratton has the potential to be less sustainable because of the potential to increase travel distances to other centres and to Norwich where most people work. The distance from Norwich for buses along an unimproved A140 corridor give less opportunity than option 1 to mitigate car journeys and make bus use more attractive.

The scale of growth in Long Stratton is a small proportion of the overall requirement across the plan area and while locally significant particularly on the regionally important A140 corridor, in itself this does not significantly affect the sustainability of this option. In Long Stratton there will be local environmental improvements from a bypass.

<p><b>Social Impacts</b></p>	<p>Overall beneficial, but some development not accessible to larger centres and services. Some dispersal transport infrastructure compared with option 1 likely to be more costly and will impact on the ability to provide other essential infrastructure and affordable housing, but less than option 2a and 3. There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk. In this respect the option has uncertain educational consequences.</p> <p>Social aspects score very positively, although the main focus will be on new residents in the areas indicated. Will ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. Requires community engagement in designing the new communities in a 'masterplanning' exercise to ensure effective delivery. In South Norfolk this option builds on existing communities and offers the opportunity for new growth to both draw on existing community facilities and activities and end enhance the facilities available to the existing residents and businesses.</p> <p>Investment required for the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing.</p>
<p><b>Economic Impacts</b></p>	<p>Although the policy scores very positively, it performs worse than options 1 and 2 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors but better than 2a and 3 because of the uncertainties around delivering a new major employment site to serve growth at Mangreen.</p> <p>The Long Stratton Bypass will improve strategic access along the A140 and may give a local boost to Long Stratton.</p>
<p><b>Overall summary:</b></p> <ul style="list-style-type: none"> <li>• Impacts</li> <li>• Possible mitigation measures</li> <li>• Recommended further research</li> <li>• Considering cumulative impacts</li> </ul>	<p>Generally positive impacts. A number of benefits arise from the reduced scale of allocation. Score held down by the dispersed pattern of smaller scale growth in South Norfolk being less able to deliver local jobs and services, however the grouping of the smaller growth locations on along the A11 corridor maximises their ability to provide high quality public transport. Uncertainty over the funding of a Long Stratton bypass and its impacts on other infrastructure provision could also negatively impact.</p> <p>Implementation of sustainable transport infrastructure and services will be important, as this is one of the main requirements for growth set out in the regional spatial strategy.</p> <p>Need to investigate:</p> <ul style="list-style-type: none"> <li>• and potential for innovative use of the railway.</li> <li>• Secondary education solution</li> </ul>

