Greater Norwich Development Partnership

Joint Core Strategy: Sustainability Appraisal Framework

Important notes:

- 1 This document was originally prepared to accompany the preferred option of the joint core strategy under the pre-June 2008 planning-making procedures. The SA has been updated to incorporate the three original growth options for the Norwich Policy Area, that were included in the July 2008 regulation 25 joint core strategy technical consultation. It also now includes an appraisal of the favoured growth option as agreed by the GNDP in February 2009, as the basis for consultation.
- 2 This appraisal will be developed further to take account of consultation responses from the technical consultation (summer 2008) and the public consultation (spring 2009).
- 3 A final SA report will accompany the pre-submission version of the joint core strategy when it is published under regulation 27, before submitting it to the Secretary of State.

Document changes:

Draft b Growth Locations updated Assessment reviewed against Scott Wilson report of 7 May 2008 Includes Alternative Growth Options

Draft c Assessment reviewed against Scott Wilson audit of October 2008 Draft d Includes GNDP favoured growth option December 2008. Assessment reviewed against Scott Wilson audit of January 2009

Draft e Includes GNDP favoured growth option February 2009 Assessment reviewed against Scott Wilson audit of March 2009

Option Appraised: VISION

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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? 	+	++	++	The vision promotes minimising need to travel and reducing reliance on the private car.
ENV 2 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?	+	+	+	Generally supportive of environmental improvements but not very explicit on water.
ENV 3	Will it improve air quality?				Reduction in traffic impact and promotion of zero

To improve environmental amenity, including	Will it reduce the emission of atmospheric pollutants?	+	++	++	carbon developments.
air quality.					
ENV 4 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?	+	++	++	Specific references to biodiversity and distinctiveness/green infrastructure, including enhancements.
	Will it conserve / enhance species diversity, and in particular avoid harm to protected species?				
ENV 5 To maintain and enhance the quality of	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant?	+	++	++	Vision recognises and promotes local distinctiveness and encourages appropriate design
landscapes, townscapes and the historic	Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage?				
environment.	Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical,				
	archaeological and cultural value?				
ENV 6 To adapt to and mitigate against	Will it reduce emissions of greenhouse gases by reducing energy consumption?	+	++	++	Vision has a specific section responding to the challenges of climate change.
the impacts of climate change.	Will it lead to an increased proportion of energy needs being met from renewable sources?				
	Will it increase the capacity of the area to withstand the effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7	Will it minimise the risk of flooding to people and property?				Flood risk not specifically covered.

To avoid, reduce and manage flood	Can it incorporate new designs to adapt to possible flood	?	?	?	Need for additional text.
risk.	risk?				
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8	Will it conserve groundwater resources?				Not specifically covered needs additional text.
To provide for sustainable use and sources of water supply.	Will it minimise water consumption?	?	?	?	
ENV 9	Will it minimise consumption of materials and resources?				Vision includes references to renewable energy,
To make the best use of resources, including land and energy, and	Will it promote the use of land in sustainable locations that has been previously developed?	+	++	++	recycling, composting and energy efficiency.
to minimise waste production.	Will it use land efficiently?				
P	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?				

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	++	++	Vision refers to revitalising areas of deprivation and promotion of local businesses to meet the needs of all and raising aspirations skills and attainment.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	++	++	Promotes "healthy and fulfilling lifestyles" and provision of accessible healthcare facilities.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	++	++	Promotes lifelong learning and personal development. Access to good quality educational facilities.
SOC 4 To provide the opportunity to live	Will it increase the range of types, sizes and affordability of housing for all social groups?	+	+	+	Mix of good quality housing of variety of tenures etc but lacks commitment to meet RSS target levels of housing

in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?				
SOC 5 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?	+	+	+	Commitment to involving people in decision making and engendering pride in their surroundings but no explicit reference to crime/safety – needs addition in view of community priority
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+	++	++	The vision has emphasis on improving skills, providing fulfilling employment and economic growth.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	++	++	Showing emphasis on pride in place and quality of places.
SOC 8 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?	+	++	++	The vision puts an emphasis on the use of public transport, walking and cycling and the provision of accessible facilities and services.

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	Will it improve access to jobs and services for all?				
ECONOMIC					
EC 1 To encourage	Will it assist in strengthening the local economy?				Promotes key sectors of the local economy and growth of strategic locations as well as innovative
sustained economic growth.	Will it improve business development and enhance competitiveness?	+	+	+	development to promote rural businesses.
	Will it reduce vulnerability to economic shocks?				Mitigation. The vision needs stronger reference to small businesses.
	Will it promote growth in key sectors?				
	Will it increase vitality & viability of town centres and improve economic diversity?				
EC 2	Will it encourage indigenous businesses?				Refers to strategic employment allocations and
To encourage and accommodate	Will it encourage inward investment? Will it make land and property available for business?	+	++	++	raising areas economic profile.
both indigenous and inward	Will it improve economic performance across the Greater Norwich area?				
investment.	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3 To encourage	Will it improve provision of local jobs?				Promotes mixed use and local accessibility but does not refer to Northern Distributor Road.
efficient patterns	Will it improve accessibility to work, particularly by public	+	+	+	
of movement in support of	transport, walking and cycling?				
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?				
	Will it improve efficiency and sustainability of freight distribution?				

	Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+/-	+/-	+/-	Promotes sustainable locations for new business but does not adequately focus on environmental performance of the economy eg energy from Waste energy audits of businesses, local energy generation. Water/recycling etc. Harvesting/BREEAM standards. (NOTE SCORE CHANGED)

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

• POLICY OPTION: VISION

Environmental Impacts	Vision promotes sustainable locations for new development, sustainable design and looks to minimise the impacts of development on climate change. However, an integrated approach to managing the water environment that considers water quality, water resources, wetlands and the water environment and flood risk in a connected way is needed.
Social Impacts	Generally positive, but more specific points addressing the impacts of crime should be added.
Economic Impacts	Positive but needs strengthening in terms of requirements for infrastructure such as the Northern Distributor Road and environmental performance of the economy.

Overall summary:	The vision sores well against the SA objectives. However there is scope for further refinement to better reflect the water environment, community safety and the importance of strategic infrastructure.
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	

Option Appraised: Sustainable Development Policy

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++ Very positive		Positive effects		Very negat			-		tive effects +- Mixed effects		
N Neutral / insignificant effects ? Uncertain effects			effects		Na	Sustai	nability objective is no	t applicable to this option			
SA Objective Decision making		ecision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20	1 I	Long- Term 20+ yrs		ents / Justification umulative effects	
					yrs						
ENVIRONMENTAL						y13					
ENV 1 To reduce the effect of traffic on the environment.	Will it reduce traffic reduce congestion? Will it increase the other than the car? Will it reduce the ef environment? Will it encourage m	proportion of journeys fect of HGV traffic on p ore benign modes of tr ent be located such to	using i beople avel?	modes and the	N	++		++	The settlement hiera places which have th	rchy foresees development in le best accessibility	
ENV 2 To improve the quality of the water environment	(streams, rivers, lal	quality of the water env kes etc)? ort wetland habitats and			N	N		Ν	environment, other p assets, will achieve t strengthen the wordi inclusion of an integr	s not actively improve the water olicies – e.g. environmental his. There is scope to ng of this policy through rated approach to the er resources and the water	

					environment.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	N	N	N	The policy does directly deal with these issues.
ENV 4 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	+	++	The policy strongly advocates maintaining and enhancing environmental resources highlighting sites that are important for biodiversity.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	+	++	++	The policy is strong in the protection of landscapes, townscapes and the historic environment.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are 	+	++	++	The policy moves development significantly towards reducing the impacts on climate change and achieving greater sustainability.

	minimised?				
ENV 7 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?	+	++	++	Strongly adopts this as a key principle. Policies identifying locations for development also consider sustainable drainage and impacts of flooding. The policies work in combination to provide a strong response.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	+	++	++	The policy promotes water efficiency.
ENV 9 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? 	+	++	++	The policy sets out what the core strategy considers to be sustainable development and is comprehensive in its response to the use of resources. There may be scope to strengthen minimisation of waste.

	Will it increase waste recovery for other means eg. energy generation?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	Contains elements of strong policy to reduce poverty through improved accessibility to jobs and services and sustainable communities. Policy could be strengthened to be inclusive of all areas, rural and urban for both existing and new communities.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Ζ	+	+	The policy promotes sustainable development and good access to jobs and services, but is not specific about health facilities. The policy encourages walking and cycling, which have indirect health benefits.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	?	?	?	Sets a strong context to increase aspirations and plan for infrastructure provision including education.
SOC 4	Will it increase the range of types, sizes and affordability of	?	?	?	Policy sets a strong context for sustainable

To provide the opportunity to live in a decent, suitable and affordable home.	 housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 				communities but does not directly deal with the provision of housing.
SOC 5 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? 	?	?	?	Policy promotes strong communities within the large scale growth locations but the policy is not primarily concerned with community cohesion.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	?	?	?	Policy supports accessibility to jobs to help improved opportunities for all, but other policy could be strengthened so economic growth supports better job opportunities.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	++	++	The policy directly supports the provision of high quality homes, green infrastructure, jobs, services and the building of strong communities. Quality of place and well-balanced communities with the services they need should improve satisfaction of people with their neighbourhoods, but it is a secondary effect and to a degree subjective. The policy could be stronger with principles for growth applying to all scale of development.
SOC 8	Will it improve accessibility to key local services and	+/-	+	+	Key principles strongly support improved

To improve accessibility to essential services, facilities and jobs.	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?				accessibility but these will need to be implemented through other parts of the plan.
ECONOMIC EC 1	Will it assist in strengthening the local economy?	?	?	?	The policy does not directly refer to economic
To encourage sustained economic growth.	 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? 				growth. The policy is essentially housing focussed, hinting at economic development but is not clear. The policy needs to be expanded to specifically include the policy context for sustainable economic growth.
EC 2 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? Will it support / encourage small city businesses? 	?	?	?	Policy does not specifically encourage economic growth, but the sequence for development and principles for development do create the conditions for sustainable indigenous and inward investment. The policy focuses on large-scale development and could be improved by making policy independent of development scale or adding specific rural issues.
EC 3 To encourage efficient patterns of movement in support of	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling?	+	+	+	The policy promotes better accessibility, proximity between housing jobs and services and identified strategic infrastructure improvements. It refers to the Norwich area transportation strategy, a subsidiary strategy to the Local Transport Plan as

economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?Will it improve efficiency and sustainability of freight distribution?Will it support provision of key communications infrastructure?				providing the blueprint for transport improvements. Some of the longer term improvements will be reliant on the success of these transportation strategies.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	+	Supports environmental performance of non- housing development but could be stronger and more explicit for 'social performance' by picking up the specific issues and identifying policy responses to the. An example being the Areas educational attainment being lower than the national average. (CHECK)

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

• POLICY OPTION: Sustainable Development Policy

Environmental Impacts	Environmental performance, including housing, non-housing and use of resources is promoted positively and strongly.

Social Impacts	A mixed assessment of strongly positive to uncertain effects. Aspects of the policy could be more explicit but with amendment would be more explicit and positive.					
Economic Impacts	Combinations of positive and uncertainty but is strong for major development with amendment, would be positive for all types of development in all locations at different scales.					
Overall summary: Impacts Possible mitigation Recommended fund 		No negative impacts No mitigation Recommendations to improve, clarify and amend policy wording.				

N.B

Rejected options 2 and 4 from question 29 were subject to sustainability appraisal at the Issues and Options stage – no change to options so no need for further SAs.

Area-wide policies – Housing

Options Appraised:	Affordable housing thresholds:
	(A) 2 units
	(B) 5 units
	(C) 10 Units
	(D) Planning Policy Statement 3 national indicative threshold of 15 units

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	pplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAI					
ENV 1 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? 	Na	Na	Na	See summary below

	Will new development be located such to reduce the need for people to travel?				
ENV 2 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?	Na	Na	Na	See summary below
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	Na	Na	See summary below
ENV 4 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? 	Na	Na	Na	See summary below
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na	Na	Na	See summary below
ENV 6 To adapt to and mitigate against the impacts of	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs	Na	Na	Na	See summary below

climate change.	being met from renewable sources?				
	Will it increase the capacity of the area to withstand the				
	effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 To avoid, reduce	Will it minimise the risk of flooding to people and property?	Na	Na	Na	See summary below
and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk?				
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8	Will it conserve groundwater resources?	Na	Na	Na	See summary below
To provide for sustainable use	Will it minimise water consumption?				
and sources of					
water supply.					
ENV 9 To make the best	Will it minimise consumption of materials and resources?	Na	Na	Na	See summary below
use of resources,	Will it promote the use of land in sustainable locations that				
including land	has been previously developed?				
and energy, and to minimise waste production.	Will it use land efficiently?				
production.	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?				

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	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?				
SOCIAL					
SOC 1 To reduce poverty and	Will it reduce poverty and social exclusion in those areas most affected?				Options a to c will increase the provision of affordable housing above the PPS3 national indicative threshold of 15 units, helping reduce
social exclusion.	Will it help to reduce deprivation levels?				deprivation/social exclusion across a range of settlements/locations.
	Will it help meet the needs of residents most effectively?				
		+	++	++	(A) Lowest threshold, potential to provide the greatest level of affordable housing;
		+	+	++	(B) Moderate threshold
		+	+	+	(C) Higher threshold has lowest potential to provide additional affordable housing
		N	N	N	(D) No change to the current situation
SOC 2 To maintain and	Will it improve access to high quality health facilities?				The provision of larger amounts of affordable housing has an indirect positive impact on health
improve the health of the	Will it encourage healthy lifestyles? How?				and reducing deprivation.
whole population and promote	Will it provide adequate health infrastructure for existing and new communities?	+	++	++	A) Lowest threshold, potential to provide the greatest level of affordable housing;
healthy lifestyles.		+	+	++	(B) Moderate threshold
	Will the links between poorer health and deprivation be addressed?	+	+	+	(C) Higher threshold has lowest potential to provide additional affordable housing
	Will links to the countryside be maintained and enhanced?	N	N	N	(D) No change to the current situation
SOC 3 To improve	Will it improve qualifications and skills for both young people and amongst the workforce?	?	?	?	Provision of a greater amount of affordable housing through lower threshold could potentially facilitates

education and skills.	 Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 				the retention of key workers, if eligible for the housing provided.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	++	++	++	All of the options will potentially provide greater amounts of affordable housing than the PPS3 indicative national threshold of 15 units. By maximising the possibilities for providing affordable housing these offer the best opportunities for meeting the overall need and the right balance of housing across the area. However, there may be concerns about the very lowest threshold affecting the overall delivery of housing.
SOC 5 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? 	+	+	+	The inclusion of affordable housing will contribute to the achieving more mixed and balanced communities, with lower thresholds helping achieve a wider spread of affordable housing across a range of settlements/location.
SOC 6 To offer more opportunities for rewarding and satisfying	Will it reduce unemployment overall? Will it help to improve earnings?	Na	Na	Na	Na

employment for all.					
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N	?	?	Although maximising the amount of affordable housing is likely to lead to greater satisfaction with their circumstances it is unlikely to have a significant affect on overall satisfaction with the neighbourhood although increased provision of affordable housing will create the opportunity for people to improve the environment within which they live
SOC 8 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? 	Na	Na	Na	The affordable housing threshold will not affect the overall amount and location of housing.
ECONOMIC					
EC 1 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? 	?	?	?	Provision of affordable housing will help retain a mixed population, potentially providing housing for existing employees/key groups who would not otherwise be able to afford market housing – however link between local employees and occupation is not fixed, therefore the benefits are uncertain. Very high levels of affordable housing can threaten the viability of developments and reduce overall housing supply.
EC 2 To encourage and accommodate both indigenous	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	?	?	?	Provision of affordable housing will help retain a mixed population, potentially providing housing for existing employees/key groups who would not otherwise be able to afford market housing – however link between local employees and

and inward investment.	Norwich area? Will it support / encourage rural diversification? Will it support / encourage small city businesses?				occupation is not fixed, therefore the benefits are uncertain. Very high levels of affordable housing can threaten the viability of developments and reduce overall housing supply.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	Na	Na	Na
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	Na	Na	Na

Overal	Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process? ONS: Affordable housing thresholds: (A) 2 units (B) 5 units (C) 10 Units (D) Planning Policy Statement 3 national indicative threshold of 15 units					
Environmental Impacts	here are no direct environmental impacts arising from this option, however, there are potential indirect impacts arising from the financial urden squeezing the funding available for environment protection features.					
Social Impacts	Options (A), (B) and (C), will increase the proportion of affordable housing more than applying the PPS3 national indicative threshold of 15 units. By having affordable housing across a range of smaller sites it offers the potential to create more mixed, balanced communities, particularly via windfall sites in locations where specific allocation are not made					
Economic Impacts	Provision of affordable housing will help retain a mixed population, potentially providing housing for existing employees/key groups who would not otherwise be able to afford market housing – however link between local employees and occupation is not fixed, therefore the benefits are uncertain. However, a very low threshold (Option A) may have implications for the overall delivery of sites (due to concerns over economic viability/pressure to bring sites forward for below the threshold numbers) and also either jeopardise the level of Community Infrastructure Levy that is achievable; not actually deliver the anticipated affordable housing or raise the cost of the market-housing element.					
Overall summary: • Impacts • Possible mitigatio • Recommended fu • Considering cum	The SA demonstrates the need to balance the social benefits of achieving a greater amount and spread of affordable housing through by applying the lowest threshold (Option A) and the concerns that such an approach might lead to a slow down in delivery of small sites, or a increase in the number of sites coming in below the threshold size. The impacts of changing the threshold in terms of environmental and economic criteria are very limited. n measures rther research					

Options Appraised:

Location of 'Exceptions' housing sites:

(A) Limited to 'appropriate settlements' (including limiting exceptions allocations to settlements listed in the Settlement Hierarchy'

(B) In all settlements

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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? 	N	Ν	Ν	(A) Limiting affordable only allocations to settlements identified in the JCS hierarchy will ensure these developments allow people more choice in terms of transport modes for everyday journeys. For other exceptions sites the impacts will depend on individual authorities' definitions of 'appropriate'. However development is still likely to be relatively dispersed and partially car dependent.
	Will new development be located such to reduce the need for people to travel?	N	-	-	(B) Although this option would allow exceptions sites in all settlements, occupied would still

					be tied to people with local connections (e.g. through existing residency, employment etc.). However there is the potential for housing to be provided in villages with very few/no facilities, increasing the need to travel for everyday activities.
ENV 2 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?	Na	Na	Na	Na
ENV 3 To improve environmental amenity, including	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	N	N	N	 (A) Changes to air quality/atmospheric pollutants will be related to transport/traffic impacts, see ENV 1
air quality.		N	-	-	 (B) Changes to air quality/atmospheric pollutants will be related to transport/traffic impacts, see ENV 1
ENV 4 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	Ν	N	Impacts will depend on the specific locations of sites.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land?	?	?	?	In both cases sites are likely to be greenfield, but relatively small in size and therefore more easily integrated into the landscape/townscape. However the impacts will depend on the specific locations of sites.

	Will it protect and enhance features of historical, archaeological and cultural value?				
ENV 6 To adapt to and mitigate against the impacts of	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs	N	N	Ν	 (A) Changes to air quality/atmospheric pollutants will be related to transport/traffic impacts, see ENV 1
climate change.	being met from renewable sources? Will it increase the capacity of the area to withstand the	N	-	-	 (B) Changes to air quality/atmospheric pollutants will be related to transport/traffic impacts, see ENV 1
	effects of climate change? Will it ensure that the risks to lives, land and property are minimised?				Other factors will depend on the specific schemes.
ENV 7 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?	Na	Na	Na	Will depend on the specific schemes.
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	Na	Na	Will depend on the specific schemes.
ENV 9 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? 	?	?	?	In both cases sites are likely to be greenfield, but relatively small in size and therefore take limited amounts of land. However the impacts will depend on the specific schemes/locations of sites.

SOCIAL SOC 1 To reduce poverty and social exclusion.	 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? Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively? 	++	+++	+++	Both options provide the opportunity to increase the supply of affordable housing in rural locations, in locations directly related to identified need and those being housed have existing family, friends, employment and/or social support networks: (A) limits affordable allocations to specific settlements identified in the JCS hierarchy (B) gives greater flexibility to provide local needs affordable housing across a wider range of settlements.
SOC 2 To maintain and	Will it improve access to high quality health facilities?	+	+	+	The majority of schemes are likely to be in more rural locations, which don't necessarily have the
improve the	Will it encourage healthy lifestyles? How?				best access to health or recreation facilities or
health of the					promote walking/cycling. Overall the effects will
whole population	Will it provide adequate health infrastructure for existing				depend on the specific scheme. However, the
and promote	and new communities?				provision of better quality housing may indirectly

healthy lifestyles.	Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced?				address the links between poorer health and deprivation.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and 	?	?	?	The majority of schemes are likely to be in more rural locations, which don't necessarily have the best access to education or training facilities. However the effects will depend on the specific scheme.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 deprivation be addressed? Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? 	++	++	++	Both options offer the opportunity to increase the supply of affordable housing in settlements/location which might otherwise not receive affordable units. This will help supply housing which specifically addresses (A) limits affordable allocations to specific settlements identified in the JCS hierarchy
	Will it make best use of existing housing stock?	++	++	++	(B) gives greater flexibility to provide local needs affordable housing across a wider range of settlements.
SOC 5 To build community identity, improve social welfare,	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	++	++	++	Both options offer the opportunity to increase the supply of affordable housing in settlements/location that might otherwise not receive affordable units. This will help maintain mixed/balanced communities and facilitate people to remain in locations where

and reduce crime and anti-social	Will it reduce actual levels of crime?				they already have local connections.
activity.	Will it reduce the fear of crime?				
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?	?	?	?	Both options offer the opportunity to increase the supply of local needs affordable housing; such housing could be occupied by people with a local employment connection, helping them retain employment.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N	N	N	Although providing local needs affordable housing is likely to lead to greater satisfaction with people's circumstances, it is unlikely to have a significant affect on overall satisfaction with the neighbourhood.
SOC 8 To improve accessibility to essential	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?				The majority of schemes are likely to be in more rural locations, which are unlikely to have good accessibility to local services.
services, facilities and jobs.	Will it improve accessibility for all whilst reducing dependency on the private car?	N	-	-	 (A) limits affordable allocations to specific settlements identified in the JCS hierarchy
	Will it improve access to jobs and services for all?	-	-		(B) gives greater flexibility to provide local needs affordable housing across a wider range of settlements.
ECONOMIC				1	
EC 1 To encourage	Will it assist in strengthening the local economy?	?	?	?	Both options offer the opportunity to provide affordable homes in areas which might otherwise
sustained economic growth.	Will it improve business development and enhance competitiveness?				not receive affordable units, potential providing housing for existing employees/key groups who would not otherwise be able to afford market
	Will it reduce vulnerability to economic shocks?				housing. However, this will be dependent on the priorities for specific schemes. Overall the scale is
	Will it promote growth in key sectors?				modest and will not have significant impacts.

	Will it increase vitality & viability of town centres and improve economic diversity?				
EC 2 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? Will it support / encourage small city businesses? 	Na	Na	Na	Overall the scale is modest and will not have significant impacts
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	N	N -	-	Both options offer the opportunity to provide affordable homes in areas which might otherwise not receive affordable units, potential providing housing for existing employees/key groups who would not otherwise be able to afford market housing. Conversely, providing housing in more rural locations may decrease the accessibility to work via non-car means.(A) limits affordable allocations to specific settlements identified in the JCS hierarchy(B) gives greater flexibility to provide local needs affordable housing across a wider
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? Will it attract new investment and skilled workers to the area?	Na	Na	Na	Na

Will it maintain existing business and employment provision?		
Will it provide employment in the best locations to serve urban and rural residents?		

Overal POLICY OPTI 	ons: Locati (A) Lir a	on of 'Exceptions' housing sites nited to 'appropriate settlements' (including limiting exceptions llocations to settlements listed in the Settlement Hierarchy' all settlements			
Environmental Impacts	Overall the schemes permitted under both of these options would be greenfield and in more rural locations, but would also be small-scale and therefore relatively easily to assimilate with the environmental constraints. Although the local needs housing is targeted at those with an existing local connections, a number of everyday activities are still likely to be reliant on car journeys. The more restrictive approach of option (A) would give the opportunity to limit these car journeys by restricting development to those settlements with a range of basic facilities.				
Social Impacts	Overall both options score strongly for the social benefits of providing affordable housing in locations where people can remain close to existing families, friends, employment etc. whilst also retaining/creating mixed/balanced communities. Option (B) offers greater flexibility to target housing to locations of need regardless of local facilities, conversely in these locations this could cause increased isolation for those without easy access to a car.				
Economic Impacts	Overall the economic effects of both options are relatively limited, being based on the potential retention of local employees/key workers in settlements/locations where they would not otherwise be able to afford market housing.				
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		Although Option (B) offers greater flexibility in the location of local needs affordable housing, with more scope to tailor provision to specific local circumstances, this needs to be balanced against the worsening access to basic/everyday facilities and possible isolation, for those who no not have easy access to a car. Option (B) also potentially, over the longer term, leads to increasing amounts of housing in unsustainable locations (particularly as the initial residents may no longer need the properties). However, much also depends on how individual authorities interpret the definition of 'appropriate settlements' for local needs exceptions schemes.			

Options Appraised: Sites to meet the RSS requirement for Gypsies and Travellers (A) Providing guidance on locations (B) No guidance on locations

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

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL	<u> </u>	-		-	
ENV 1 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?				Although impacts will depend on the final choice of sites Option (A) aims to target them towards places with good access to basic facilities/services as well as to the main routes used by the Gypsy and Traveller community, with consequent opportunities to cut overall travel and promote more benign modes.
	Will it encourage more benign modes of travel?	N	+	+	(A) Providing guidance on locations
	Will new development be located such to reduce the need for people to travel?	N	-	-	(B) No guidance on locations
ENV 2 To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?				Although impacts will depend on the final choice of sites Option (A) aims to target them towards places which avoid environmentally sensitive areas.

water	Will it help to support wetland habitats and species?				
environment		N	+	+	(A) Providing guidance on locations
		?	?	?	(B) No guidance on locations
ENV 3	Will it improve air quality?				Improvements in air quality/reductions in
To improve					atmospheric pollution will be related to travel
environmental	Will it reduce the emission of atmospheric pollutants?				reductions/changes in transport mode – see ENV1
amenity, including air quality.					above.
an quanty.		Ν	+	+	(A) Providing guidance on locations
		N	-	-	(B) No guidance on locations
ENV 4	Will it conserve / enhance natural or semi-natural habitats,				Although impacts will depend on the final choice of
To maintain and enhance	and promote habitat connections?				sites Option (A) aims to target them towards places which avoid environmentally sensitive areas.
biodiversity and	Is it likely to have a significant effect on sites designated				
geodiversity.	for international, national or local importance?	N	+	+	(A) Providing guidance on locations
3					()
	Will it conserve / enhance species diversity, and in	?	?	?	(B) No guidance on locations
	particular avoid harm to protected species?				
ENV 5	Will it protect and enhance the quality of landscapes,				Although impacts will depend on the final choice of
To maintain and enhance the	townscapes and countryside character, including the character of the Broads and its setting where relevant?				sites Option (A) aims to target them towards places which avoid environmentally sensitive areas.
quality of	character of the broads and its setting where relevant?				which avoid environmentally sensitive areas.
landscapes,	Will it maintain and enhance the distinctiveness of the	Ν	+	+	(A) Providing guidance on locations
townscapes and	landscapes/townscapes and heritage?				
the historic		?	?	?	(B) No guidance on locations
environment.	Will it reduce the amount of derelict, underused land?				
	Will it protect and enhance features of historical,				
	archaeological and cultural value?				
ENV 6	Will it reduce emissions of greenhouse gases by reducing	N	N	N	Although Option (A) requires sites to be capable of
To adapt to and	energy consumption?				being serviced with basic utilities, neither Option
mitigate against	Will it lead to an increased properties of operative				makes specific provision to meet this SA Objective.
the impacts of	Will it lead to an increased proportion of energy needs				

climate change.	being met from renewable sources?				
	Will it increase the capacity of the area to withstand the effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 To avoid, reduce	Will it minimise the risk of flooding to people and property?				Although impacts will depend on the final choice of sites Option (A) aims to target them towards places
and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk?				which are not at risk from flooding.
	Will it promote the use of sustainable drainage systems to	N	+	+	(A) Providing guidance on locations
	reduce run off?	?	?	?	(B) No guidance on locations
ENV 8 To provide for sustainable use and sources of	Will it conserve groundwater resources? Will it minimise water consumption?	N	N	N	Neither Option makes specific provision to meet this SA Objective.
water supply.					
ENV 9 To make the best use of resources, including land	Will it minimise consumption of materials and resources? Will it promote the use of land in sustainable locations that has been previously developed?	N	N	N	Neither Option makes specific provision to meet this SA Objective.
and energy, and to minimise waste production.	Will it use land efficiently?				
production	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?				

F	Τ				1
	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?				
SOCIAL			1	1	
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?				The overall provision of sites will help reduce deprivation by providing fixed addresses for accessing services, facilities, employment etc. However, Option A provides stronger guidance on locating sites to maximise access.
		Ν	+	+	(A) Providing guidance on locations
		?	?	?	(B) No guidance on locations
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	N ?	+ ?	+ ?	 The overall provision of sites will help reduce the stresses related to temporary/unauthorised sites and by providing fixed addresses for accessing health facilities. However, Option A provides stronger guidance on locating sites to maximise access and potentially increase the opportunities for walking and cycling. (A) Providing guidance on locations (B) No guidance on locations
SOC 3 To improve education and	Will it improve qualifications and skills for both young people and amongst the workforce?				The overall provision of sites will help improve qualifications/skills etc. by providing fixed addresses for accessing employment and training
skills.	Will it help to retain key workers and provide more skilled				opportunities. However, Option A provides stronger

	workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training?	N ?	+ ?	+ ?	guidance on locating sites to maximise access. (A) Providing guidance on locations (B) No guidance on locations
500.4	Will links between lower levels of education and deprivation be addressed?				Dath options about a contribute to mosting the poor
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+ +	+ +	+ +	Both options should contribute to meeting the needs of this sector of the community. Option A guides the choice of sites to locations which serve occupiers needs best (close to facilities, services etc.). However the freer choice of locations/sites under Option B may mean that they are more readily available and come forward more quickly. (A) Providing guidance on locations (B) No guidance on locations
SOC 5 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? 				Both Options should limit the problems associated with unauthorised and temporary sites and facilitate better access to health education, employment etc. therefore contributing to long term reductions in the fear of crime between the Gypsy and Traveller and settled communities. However it should be noted that these options are not concerned with the overall principle of allocating sites. Option (A) may cause short-term concerns if sites are located close to/within the settled community, although these should be reversed in the long term. Option (B) gives more flexibility and could reduce both short - and long-term conflicts.

		Ν	+	+	(A) Providing guidance on locations
		N	?	?	(B) No guidance on locations
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	N ?	+ ?	+ ?	The overall provision of sites will help improve access to employment by providing fixed addresses. However, Option A provides stronger guidance on locating sites to maximise access. (A) Providing guidance on locations (B) No guidance on locations
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	- N	N +	+ +	Both Options should limit the problems of accommodation quality associated with unauthorised and temporary sites and also contribute to long term reductions in the tensions between the Gypsy and Traveller and settled communities. However it should be noted that these options are not concerned with the overall principle of allocating sites. Option (A) may cause short-term concerns if sites are located close to/within the settled community, although these should be reversed in the long term. Option (B) gives more flexibility and could reduce both short -and long-term conflicts. (A) Providing guidance on locations (B) No guidance on locations
SOC 8 To improve accessibility to essential	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?				Although impacts will depend on the final choice of sites Option (A) aims to target them towards places with good access to basic facilities, services, employment etc., with consequent opportunities to

Will it improve accessibility for all whilst reducing dependency on the private car?				promote less car dependence.
	N	+	+	(A) Providing guidance on locations
	N	-	-	(B) No guidance on locations
Will it assist in strengthening the local economy? Will it improve business development and enhance competitiveness?	Na	Na	Na	These options are not concerned with the principle of providing sites, numbers or specific locations.
Will it reduce vulnerability to economic shocks?Will it promote growth in key sectors?Will it increase vitality & viability of town centres and				
 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? Will it support / encourage small city businesses? 	Na	Na	Na	These options are not concerned with the principle of providing sites, numbers or specific locations.
Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment	+ N	+	+	Option A specifically encourages appropriate locations to meet the community's needs. Option B could meet a very short tern need but be less appropriate over the longer term.
	 dependency on the private car? Will it improve access to jobs and services for all? 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? 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? Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public 	dependency on the private car? N Will it improve access to jobs and services for all? N Will it improve business development and enhance competitiveness? Na Will it reduce vulnerability to economic shocks? Na Will it promote growth in key sectors? Will it increase vitality & viability of town centres and improve economic diversity? Will it encourage indigenous businesses? Na Will it make land and property available for business? Na Will it support / encourage rural diversification? Na Will it improve accessibility to work, particularly by public transport, walking and cycling? N	dependency on the private car?N+Will it improve access to jobs and services for all?N+Will it improve access to jobs and services for all?N-Will it assist in strengthening the local economy?NaNaWill it improve business development and enhance competitiveness?NaNaWill it reduce vulnerability to economic shocks?Vill it promote growth in key sectors?NaWill it norrease vitality & viability of town centres and improve economic diversity?NaNaWill it encourage indigenous businesses?NaNaWill it make land and property available for business?NaNaWill it support / encourage rural diversification?Vill it support / encourage rural diversification?Vill it improve provision of local jobs?Will it improve accessibility to work, particularly by public transport, walking and cycling?N-Will it reduce journey times between key employmentN-	dependency on the private car?N++Will it improve access to jobs and services for all?N++NWill it assist in strengthening the local economy?NaNaNaWill it assist in strengthening the local economy?NaNaNaWill it improve business development and enhance competitiveness?NaNaNaWill it reduce vulnerability to economic shocks?Improve accessibility to economic shocks?Improve accessibility of town centres and improve economic diversity?NaNaWill it encourage indigenous businesses?NaNaNaNaWill it encourage indigenous businesses?NaNaNaWill it improve economic performance across the Greater Norwich area?Improve economic performance across the Greater Norwich area?Improve economic performance across the Greater Norwich area?Improve provision of local jobs?++Will it improve accessibility to work, particularly by public transport, walking and cycling?NWill it reduce journey times between key employmentImprove accessibility to work particularly by public transport, walking and cycling?N

	Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	Na	Na	These options are not concerned with the principle of providing sites, numbers or specific locations.

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

POLICY OPTIONS: Sites to meet the RSS requirement for Gypsies and Travellers (A) Providing guidance on locations (B) No guidance on locations

	Over all the effects of Option (A) are to increase the likelihood of sites being provided in more sustainable locations (with better access to
Environmental	services and facilities and the option to use more benign transport modes), and also avoid more environmentally sensitive areas and areas at
Impacts	risk of flooding etc. Although some of these factors may also be covered in respect of Option (B) by other JCS policies and the fact that there
-	is greater flexibility, the outcomes would be less certain.

Social Impacts	s of Option (A) are to increase the likelihood of sites being provided in locations with better access to a range of health and s and employment opportunities. Option (B) has positive effects in the short term as sites could be chosen in more 'remote' ng initial concerns amongst the settled community; although there is likely to be a long term disadvantage as integration ommunity and access to local facilities will be more difficult. The greater flexibility offered by Option (B) may also mean that forward more quickly.							
Economic Impacts Careful selection of locations for sites may have slight positive effects.								
Overall summary: Impacts Possible mitigation Recommended fund Considering cumulation 	ther research	Overall Option (A) provides guidance which should ensure sites are provided in more environmentally sustainable locations (reduced travel, avoiding sensitive areas etc.), whilst also offering better access to services, facilities and employment opportunities and therefore addressing some of the disadvantages faced by the Gypsy and Traveller community. These are set against the advantages of Option (B) relating to flexibility of provision. Additional clauses could be considered as improvements to Option (A) to meet deficiencies under the Environmental Objectives, such ENV8 and ENV9, however these may be too detailed for this policy and also already be covered by other JCS Policies and other Policy documents.						

Options Appraised: Sites to meet the RSS requirement for Gypsies and Travellers (A) Allocating a small number of large sites (B) Allocating a larger number of small sites

++	Very positive effects	+	Positive effects	-	Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	pplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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	Ν	N	These options are concerned with the size of individual sites rather than overall numbers or locations. The number of pitches is insignificant in terms of impact on overall traffic level. Even local effects will be very small.
ENV 2 To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	N	N	N	Larger sites have the potential for greater local impacts, however more smaller sites will have a similar cumulative impact and as there are more

water environment	Will it help to support wetland habitats and species?				sites management will be more difficult.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	N	N	N	Larger sites have the potential for greater local impacts, however more smaller sites will have a similar cumulative impact and as there are more sites management will be more difficult.
ENV 4 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	N	N	Larger sites have the potential for greater local impacts, however more smaller sites will have a similar cumulative impact and as there are more sites management will be more difficult.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage?				Although the actual affects will depend on the choice of specific sites, more smaller sites offers better opportunities to integrate sites with the land/townscape and more flexibility to use previously developed land.
the historic environment.	Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	N	N	N	(A) Fewer larger sites(B) Greater number of smaller sites
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?	N	N	N	Larger sites have the potential for greater local impacts, however more smaller sites will have a similar cumulative impact and as there are more sites management will be more difficult.

	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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	Ν	N	N	These options are concerned with the size of individual sites rather than overall numbers or locations.
ENV 8 To provide for sustainable use and sources of water supply.	reduce run off? Will it conserve groundwater resources? Will it minimise water consumption?	Na	Na	Na	These options are concerned with the size of individual sites rather than overall numbers or locations.
ENV 9 To make the best use of resources, including land and energy, and to minimise waste	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?	-	_	_	Although the actual affects will depend on the choice of specific sites, and the majority of sites are likely to be greenfield, more smaller sites offers greater flexibility in the choice of sites. (A) Fewer larger sites
production.	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	Ν	Ν	Ν	(B) Greater number of smaller sites
	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?				

		Т			
	Will it increase waste recovery for other means eg. energy generation?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	-+	-+	-+	Provision of a greater number of smaller sites better reflects the need to accommodate different groups within the Gypsy and Traveller Community on separate sites of different types and in different locations. (A) Fewer larger sites (B) Greater number of smaller sites
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	?	?	?	Although the overall the provision of sites should provide improvements in terms of access to health facilities, these options are concerned with the size of individual sites rather than the principle of provision or specific locations. Smaller sites (Option B) may prove to have less impact on local facilities. (A) Fewer larger sites
		+	+	+	(B) Greater number of smaller sites
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce?Will it help to retain key workers and provide more skilled workers from school leavers?				Although the overall the provision of sites should provide improvements in terms of access to education and training facilities, these options are concerned with the size of individual sites rather than the principle of provision or specific locations.
	Will adequate education infrastructure be provided for existing and new communities?				Smaller sites (Option B) may prove to have less impact on local facilities.

			1		
	Will it promote lifelong learning and skills training?	?	?	?	(C) Fewer larger sites
	Will links between lower levels of education and deprivation be addressed?	+	+	+	(D) Greater number of smaller sites
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all?				Overall the Provision of sites should contribute to meeting housing needs of this sector of the community. In terms of the options presented, a greater number of smaller sites if likely to provide the flexibility to address the housing requirement.
	Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?	-	-	-	(A) Fewer larger sites
	Will it make best use of existing housing stock?	+	+	+	(B) Greater number of smaller sites
SOC 5 To build community identity, improve social welfare,	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?				Over the short term, sites for gypsies and travellers are likely to cause concern relating to 'fear of crime'; however smaller sites offer the opportunity for easier integration with the settled community.
and reduce crime and anti-social	Will it reduce actual levels of crime?	-	-	Ν	(A) Fewer larger sites
activity.	Will it reduce the fear of crime?	-	Ν	+	(B) Greater number of smaller sites
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Ν	Ν	Ν	Although the overall the provision of sites should provide improvements in terms of access to employment opportunities, these options are concerned with the size of individual sites rather than the principle of provision or specific locations. Larger site may have greater potential to provide on site facilities to support economic activity however effects are considered very small.
SOC 7 To improve the	Will it improve the quality of dwellings?				Over the short term, sites for gypsies and travellers are likely to cause concern amongst the settled

quality of where people live.	Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+/-	+	+	community, potentially reducing satisfaction with people's neighbourhoods; however smaller sites offer the opportunity for easier integration with the settled community. Planning for sites will have the biggest impacts on the quality of life for the gypsies and travellers. (A) Fewer larger sites (B) Greater number of smaller sites
		+/-	+	+	(B) Greater number of smaller sites
SOC 8 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? 	Na	Na	Na	Although the overall the provision of sites should provide improvements in terms of access to employment opportunities, these options are concerned with the size of individual sites rather than specific locations.
ECONOMIC					
EC 1 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	N	N	Larger site may have greater potential to provide on site facilities to support economic activity however effects are considered very small.
EC 2	Will it encourage indigenous businesses?	N	N	N	Larger site may have greater potential to provide on
To encourage and	Will it encourage inward investment? Will it make land and property available for business?				site facilities to support economic activity however effects are considered very small.

accommodate both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area? Will it support / encourage rural diversification? Will it support / encourage small city businesses?				
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	N	Ν	Ν	Larger site may have greater potential to provide on site facilities to support economic activity however effects are considered very small.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	Na	Na	These options are concerned with the size of individual sites rather than overall numbers or locations.

	ons: <mark>Sites to</mark> (A) All	at are the main effects of the policy option as identified through the sustainability appraisal process? meet the RSS requirement for Gypsies and Travellers locating a small number of large sites locating a larger number of small sites					
Environmental Impacts	These options are concerned with the size of individual sites rather than the principle of providing sites, the overall numbers or specific locations; consequently the environmental considerations are limited to the benefits that the greater flexibility that smaller sites provide in terms choosing sites. Larger sites have the potential for greater local impacts, however more smaller sites will have a similar cumulative impact and as there are more sites management will be more difficult.						
Social Impacts	Broadly the provision of sites offers overall benefits in terms of offering stable base and better access to basic facilities such as health, education, employment opportunities etc. However these options are concerned with the size of sites and as such the main benefits of Option (B) relate to the flexibility of smaller sites to meet the different needs of the various groups within the Gypsy and Traveller community, whilst also making sites easier to integrate with the settled community.						
Economic Impacts		ave greater potential to provide on site facilities to support economic activity however effects are considered very small.					
Overall summary: Impacts Possible mitigatio Recommended fur Considering cumu 	rther research	Taking into account the flexibility, easier integration and greater scope to tailor site provision to the needs of different groups within the Gypsy and Traveller community, the provision of a greater number of smaller sites performs better against in the SA Objectives, over the sort, medium and longer term.					

Area-wide policies – The economy

Option Appraised: Generic Policy : Economy : Preferred Option

			Very negat				ive effects +- Mixed effects
N Neutral / insignificant effects ? Uncertain effects				effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria	l		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL							
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the floreduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of the will new development be located such to for people to travel? 	using beople ravel?	modes and the	+/-	+/-	+/-	Encouragement of small-scale local business, homework. Co-location of employment and housing should be more explicit in the policy. Innovation, skills and training in accessible locations is advocated. However, likely to be an overall increase in traffic.
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water env (streams, rivers, lakes etc)? Will it help to support wetland habitats an			Ν	Ν	Ν	Any increased effluent will need to be managed to prevent adverse impacts on the water environment. Not a main theme of this policy.
ENV 3	Will it improve air quality?						It is likely that increased economic activity will

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?	-	-	-	increase potential for pollutants.
ENV 4 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?	?	?	?	The policy is not location specific and therefore the impacts will be dependant on implementation through other policies.
	Will it conserve / enhance species diversity, and in particular avoid harm to protected species?				
ENV 5 To maintain and enhance the quality of landscapes,	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the	+/-	+/-	+/-	Some employment development will have a detrimental impact. But reuse of rural buildings is a definite positive. Small-scale development is more likely to be positive.
townscapes and the historic environment.	landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land?				
	Will it protect and enhance features of historical, archaeological and cultural value?				
ENV 6 To adapt to and mitigate against the impacts of	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs	?	?	?	More positive effects could come from co-location, mixed uses, re use of rural buildings, but the policy needs to be more specific.
climate change.	Will it increase the capacity of the area to withstand the				
	effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7	Will it minimise the risk of flooding to people and property?				SUDS design policy will apply.

To avoid, reduce and manage flood	Can it incorporate new designs to adapt to possible flood	N/A	N/A	N/A	
risk.	risk?				
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8	Will it conserve groundwater resources?				Economic development will increase water use.
To provide for sustainable use and sources of water supply.	Will it minimise water consumption?	-	-	-	
ENV 9	Will it minimise consumption of materials and resources?				Economic development will use Greenfield land and
To make the best use of resources, including land and energy, and	Will it promote the use of land in sustainable locations that has been previously developed?	_	_	_	is likely to create additional waste.
to minimise waste production.	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?				

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	Job growth, skills/training emphasis and wide location of opportunities will all benefit deprivation.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Ν	Ν	N	
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	++	++	++	Key emphasis of policy
SOC 4 To provide the opportunity to live	Will it increase the range of types, sizes and affordability of housing for all social groups?	+	+	+	Balancing housing and jobs growth is an explicit aim on the plan and will help bring forward sustainable growth across the plan area.

in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?				
SOC 5 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/A	N/A	N/A	The policy could be more explicit in promoting stronger communities.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	++	++	++	Job growth, skills emphasis wide range of large and small opportunities. Knowledge economy focus will all minimise unemployment and improve earnings.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N/A	N/A	N/A	
SOC 8 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?	+	+	+	Small scale development, rural diversification accessible skills all improve accessibility.

	Will it improve access to jobs and services for all?				
ECONOMIC		1			
EC 1 To encourage	Will it assist in strengthening the local economy?				This is the primary reason for the policy.
sustained economic growth.	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?				
EC 2 To encourage and accommodate	Will it encourage indigenous businesses? Will it encourage inward investment? Will it make land and property available for business?	+	++	++	Deal with both needs of both large and small businesses, increases skills.
both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area?				
	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3 To encourage	Will it improve provision of local jobs?				Allocations consistent with spatial hierarchy. Encourages small scale business including flexible
efficient patterns of movement in support of	Will it improve accessibility to work, particularly by public transport, walking and cycling?	+	++	++	design etc. Specifically encourages local business/work opportunities.
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?				
	Will it improve efficiency and sustainability of freight distribution?				

	Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	++	++	The policy provides for economic activity and the supporting activities such as education, training and good design. The policy should provide a range of opportunity maximising attraction of appropriate labour.

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

• POLICY OPTION: Generic Policy : Economy : Preferred Option

Environmental Impacts	There are positive scores in this section for trying to achieve sustainable patterns of accessibility, however economic growth is likely to place additional burdens on the environment although this could be mitigated by careful attention to emerging technologies.
Social Impacts	There is a positive emphasis on reducing poverty and improving aspirations and skills. Links are made to the provision of new housing, overall social impacts are beneficial. More explicit reference could be made to the value of economic growth in aiding vibrant communities.
Economic Impacts	Given this is the prime aim of the policy – to improve economic prosperity, the policy scores very well here.

Overall summary:	Very positive scores arise in the economic section of the appraisal; equally social aspects are picked up (e.g. links to training and housing provision). However the environmental performance is not so strong given the need for extra travel; potential effects on waste, water resources and landscape. However some of these could be mitigated depending on
Impacts	location factors when detail sites are explored. These latter factors should be more explicitly mentioned in the policy, as
Possible mitigation measures	should the link to potentially more vibrant communities.
Recommended further research	
Considering cumulative impacts	

Option Appraised: Generic Policy: Economy : Rejected Option : Lower level/economic growth

++ Very positive			Very negat				ive effects +- Mixed effects
N Neutral / insig	nificant effects	?	Uncertain e	effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria	a		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL						-	
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flor reduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on environment? Will it encourage more benign modes of Will new development be located such to 	using people ravel?	modes and the	+-	+-	+-	Similar to preferred option but will have lower negative impact because it will have lower level of traffic growth. However, this would be counteracted by increased long distances commuting if same amount of housing.
	for people to travel?						
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water en (streams, rivers, lakes etc)? Will it help to support wetland habitats ar			Ν	Ν	Ν	
ENV 3	Will it improve air quality?						Less negative than preferred option

To improve environmental	Will it reduce the emission of atmospheric pollutants?	-	-N	N	
amenity, including air quality.					
ENV 4 To maintain and enhance	Will it conserve / enhance natural or semi-natural habitats, and promote habitat connections?	?	?	?	The policy is not location specific and therefore the impacts will be dependent on implementation through other policies.
biodiversity and geodiversity.	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?				
ENV 5 To maintain and enhance the guality of	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant?	+-	+-	+-	Less –ve impact than PO
landscapes, townscapes and the historic	Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage?				
environment.	Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical,				
	archaeological and cultural value?				
ENV 6 To adapt to and mitigate against	Will it reduce emissions of greenhouse gases by reducing energy consumption?	+	+	+	Les -ve impact than PO
the impacts of climate change.	Will it lead to an increased proportion of energy needs being met from renewable sources?				
	Will it increase the capacity of the area to withstand the effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7	Will it minimise the risk of flooding to people and property?				

To avoid, reduce and manage flood	Can it incorporate new designs to adapt to possible flood	N/A	N/A	N/A	
risk.	risk?				
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8	Will it conserve groundwater resources?				Less economic development would have less
To provide for sustainable use and sources of water supply.	Will it minimise water consumption?	N	N	N	impact on water demand.
ENV 9 To make the best	Will it minimise consumption of materials and resources?				
use of resources, including land and energy, and	Will it promote the use of land in sustainable locations that has been previously developed?	Ν	Ν	-	
to minimise waste production.	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?				

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	N	N	N	
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Ν	Ν	N	
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	+	+	Less opportunities to acquire or use skills if there are less job opportunities.
SOC 4 To provide the opportunity to live	Will it increase the range of types, sizes and affordability of housing for all social groups?	N	N	N	There is some link between this lower level of economic growth and provision of less housing, although not significant.

in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?				
SOC 5 To build community identity, improve	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	N/A	N/A	N/A	
social welfare, and reduce crime and anti-social activity.	Will it reduce actual levels of crime? Will it reduce the fear of crime?				
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+	+	+	Lower +ve impact than PO
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N/A	N/A	N/A	
SOC 8 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?				
ECONOMIC					
EC 1 To encourage	Will it assist in strengthening the local economy?				This policy would still promote some growth in the local economy, so there will be some economic
sustained economic growth.	Will it improve business development and enhance competitiveness?	+	+	+	benefits, but not as great as the more aspirational preferred option. Growth is still likely to occur based
	Will it reduce vulnerability to economic shocks?				on past trends.
	Will it promote growth in key sectors?				
	Will it increase vitality & viability of town centres and improve economic diversity?				
EC 2	Will it encourage indigenous businesses?				This policy would still promote some growth in the
To encourage and accommodate	Will it encourage inward investment? Will it make land and property available for business?	+	+	+	local economy, so there will be some economic benefits, but not as great as the more aspirational preferred option. Growth is still likely to occur based
both indigenous and inward	Will it improve economic performance across the Greater Norwich area?				on past trends.
investment.	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3 To encourage	Will it improve provision of local jobs?				Allocations would be consistent with spatial hierarchy. Encourages small scale business
efficient patterns	Will it improve accessibility to work, particularly by public	+	+	+	including flexible design etc. Specifically encourages
of movement in support of	transport, walking and cycling?				local business/work opportunities, albeit on a lesser scale than preferred option.
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?				
	Will it improve efficiency and sustainability of freight distribution?				

	Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	+	If the economy is growing it will offer the opportunity for positive effects, but less so than stronger policies.

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

• POLICY OPTION: Generic Policy: Economy : Rejected Option : Lower level/economic growth

Environmental Impacts	Any growth in the economy can have environmental impacts and there maybe a further issue if people have to travel further to gain employment.
Social Impacts	Benefits would still be evident but would not provide such a widespread benefit for all.
Economic Impacts	Overall positive effects, but less than for stronger growth option.

Overall summary:	Still performs well, but less impacts and less benefits than the preferred option.
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	

Option Appraised: Generic Policy: Economy Rejected Option: Less emphasis on skills, business needs, rural emphasis

++ Very positive effects + Positive effects			Very negat	ive effects	-	Negat	ive effects +- Mixed effects	
N Neutral / insignificant effects ?			Uncertain	ertain effects Na		a Sustai	inability objective is not applicable to this option	
SA Objective	Decision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects	
ENVIRONMENTAL								
ENV 1 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? 			-	-	-	There would still be growth in the economy, so would lead to an overall increase in traffic, the lack of rural emphasis could encourage commuting from rural areas.	
ENV 2 To improve the quality of the water environment	(streams, rive	e the quality of the water e ers, lakes etc)? support wetland habitats			N	N	N	

ENV 3	Will it improve air quality?	-	-N	Ν	A policy like the preferred option, but with less
To improve environmental	Will it reduce the emission of atmospheric pollutants?				emphasis on skill and specific business needs, would still have negative effects on air quality.
amenity, including	will it reduce the emission of atmospheric politicants?				would still have negative effects of all quality.
air quality.					
ENV 4	Will it conserve / enhance natural or semi-natural habitats,				The policy is not location specific, therefore the
To maintain and	and promote habitat connections?				effects on the natural environment arise from other
enhance		Ν	Ν	Ν	more specific policies in the plan.
biodiversity and	Is it likely to have a significant effect on sites designated				
geodiversity.	for international, national or local importance?				
	Will it conserve / enhance species diversity, and in				
	particular avoid harm to protected species?				
ENV 5	Will it protect and enhance the quality of landscapes,				Less positive than the preferred option as the policy
To maintain and	townscapes and countryside character, including the				provides less encouragement for re- use of buildings
enhance the	character of the Broads and its setting where relevant?	+-	+-	+-	in the countryside for rural based business.
quality of					
landscapes,	Will it maintain and enhance the distinctiveness of the				
townscapes and the historic	landscapes/townscapes and heritage?				
environment.	Will it reduce the amount of derelict, underused land?				
chvironnent.					
	Will it protect and enhance features of historical,				
	archaeological and cultural value?				
ENV 6	Will it reduce emissions of greenhouse gases by reducing				Because there is less guidance on the way in which
To adapt to and	energy consumption?				smaller businesses might grow or the role of rural
mitigate against		N	-	-	areas the adaptation possible to climate change is
the impacts of	Will it lead to an increased proportion of energy needs				more limited.
climate change.	being met from renewable sources?				
	Will it increase the capacity of the area to withstand the				
	effects of climate change?				
	Will it ensure that the risks to lives, land and property are				
	minimised?				

ENV 7 To avoid, reduce	Will it minimise the risk of flooding to people and property?	N/A	N/A	N/A	
and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk?				
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for	Will it conserve groundwater resources?	N	N	N	Less economic development would have less impact on water demand.
sustainable use and sources of water supply.	Will it minimise water consumption?				
ENV 9 To make the best	Will it minimise consumption of materials and resources?				Probably more negative than preferred option as less mixed use, less re-use of existing building, less
use of resources, including land and energy, and	Will it promote the use of land in sustainable locations that has been previously developed?				co-location.
to minimise waste production.	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?				
SOCIAL	I				
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels?	+-	+-	+-	Still promoting the number of jobs but no focus on skills and training will limit positive impact.
	Will it help meet the needs of residents most effectively?				
SOC 2 To maintain and	Will it improve access to high quality health facilities?				
improve the health of the	Will it encourage healthy lifestyles? How?	Ν	N	N	
whole population and promote healthy lifestyles.	Will it provide adequate health infrastructure for existing and new communities?				
	Will the links between poorer health and deprivation be addressed?				
	Will links to the countryside be maintained and enhanced?				
SOC 3 To improve education and	Will it improve qualifications and skills for both young people and amongst the workforce?	_	_	_	Explicitly less recognition of enhancing skills.
skills.	Will it help to retain key workers and provide more skilled workers from school leavers?				
	Will adequate education infrastructure be provided for existing and new communities?				
	Will it promote lifelong learning and skills training?				
	Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the	Will it increase the range of types, sizes and affordability of housing for all social groups?				

opportunity to live in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?	N/A	N/A	N/A	
SOC 5 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	-	-	Less emphasis on the economic needs of rural areas and the lack of support for business within communities could have effects communities.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Ν	Ν	N	Will not improve higher skilled/higher wage opportunities, but similar effects to the preferred option.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N/A	N/A	N/A	
SOC 8 To improve accessibility to essential services, facilities	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	-	-	-	No emphasis on small scale business (->mixed use), local small scale, flexible buildings.

and in ha	denondences on the private corr				1
and jobs.	dependency on the private car?				
	Will it improve access to jobs and services for all?				
ECONOMIC					
EC 1	Will it assist in strengthening the local economy?				Less encouragement to business need and skills
To encourage					would have a dampening effect on the prospects for
sustained economic growth.	Will it improve business development and enhance competitiveness?	+	+	+	growth, although not enough for a negative effect.
	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?				
EC 2	Will it encourage indigenous businesses?				
To encourage	Will it encourage inward investment?				
and	Will it make land and property available for business?	+	+	+	As above.
accommodate both indigenous	Will it improve economic performance across the Greater				
and inward investment.	Norwich area?				
	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3	Will it improve provision of local jobs?				
To encourage	APRIL 10 Second and a second State of the second se				No explicit encouragement for small business in
efficient patterns of movement in	Will it improve accessibility to work, particularly by public transport, walking and cycling?	+	+	+	sustainable locations although growth still
support of	ransport, waiking and cycling?				anticipated.
economic growth.	Will it reduce journey times between key employment				
	areas and key transport interchanges?				
	Will it improve efficiency and sustainability of freight				

	distribution? Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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?	+	+	+	Less encouragement than preferred option to business need and skills, but still sees growth.

• POLICY OPTION: Economy Rejected Option: Less emphasis on skills, business needs, rural emphasis

Environmental Impacts	There are mixed effects here, but generally either negligible or not applicable, but tending to be poor. Economic growth in this poorly balanced option will exhibit more poor scores.
Social Impacts	Again there are more negative effects in this option, but many neutral or insignificant effects. Rural communities are more affected by the lack of explicit emphasis for the option.

Economic Impacts	Overall there are economy.	significant positive effects since this is an option (albeit less well balanced than other options) promoting growth of the
Overall summary: Impacts Possible mitigation Recommended fur Considering cumu 	ther research	This option scores less well than a more balanced approach to economic growth, supporting many sectors – as the preferred option does, although overall it is still positive. There is potential for longer-term damage as skills in existing population are lost, or rural businesses close. This is a pessimistic option.

Area-wide policies – Transportation

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Transport

++ Very positive				Very negat	ive effects	-	Negat	tive effects +- Mixed effects
N Neutral / insig	nificant effects		?	Uncertain e	effects	N	a Susta	ainability objective is not applicable to this option
SA Objective	Decision making criteria				Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					r		T	1
ENV 1 To reduce the effect of traffic on the environment.	reduce congestic Will it increase th other than the ca Will it reduce the environment?	e proportion of journeys	using i beople	modes	+-	+-	+-	Improved strategic access will increase traffic, but will also enable 'impacts' to be minimised as routes will avoid some existing communities e.g. Long Stratton Bypass. Aspects of the option provide encouragement to non-car modes.
	Will new develop for people to trav	ment be located such to vel?	reduce	e the need				
ENV 2 To improve the quality of the water environment	(streams, rivers,	e quality of the water env lakes etc)? oport wetland habitats and			N/A	N/A	N/A	

ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+-	+-	+-	Not reducing overall emissions but provides opportunities to improve air quality in specific populated locations.
ENV 4 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? 	-	-	-	New transport infrastructure will offer opportunities to create some new areas of natural habitat, but others may be affected. Appropriate design will mitigate against adverse impacts.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+-	+-	+-	Can help reduce traffic impacts on urban environments, but new infrastructure will have an adverse impact on landscapes.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	+-	+-	+-	Promotes strategic access, which will increase emissions. Also promotes use of public transport home working and cycling to minimise local travel needs.

ENV 7 To avoid, reduce	Will it minimise the risk of flooding to people and property?				Design will mitigate any adverse impacts.
and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk?	Ν	Ν	N	
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for	Will it conserve groundwater resources?				
sustainable use and sources of water supply.	Will it minimise water consumption?	N/A	N/A	N/A	
ENV 9	Will it minimise consumption of materials and resources?				Promotes more sustainable local journeys and will
To make the best use of resources, including land and energy, and	Will it promote the use of land in sustainable locations that has been previously developed?	N	+	+	help new development to be sustainable. These effects are in the medium to long term.
to minimise waste production.	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?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels?	N	+	+	Will promote better accessibility to jobs and services and reduce social exclusion.
	Will it help meet the needs of residents most effectively?				
SOC 2 To maintain and improve the	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How?	+	+	+	Will improve access to healthcare and encourages walking and cycling
health of the whole population and promote healthy lifestyles.	Will it provide adequate health infrastructure for existing and new communities?				
nealing mestyles.	Will the links between poorer health and deprivation be addressed?				
	Will links to the countryside be maintained and enhanced?				
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers?	Ν	+	+	Will improve access to education and training opportunities.
	Will adequate education infrastructure be provided for existing and new communities?				
	Will it promote lifelong learning and skills training?				
	Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the	Will it increase the range of types, sizes and affordability of housing for all social groups?				

opportunity to live in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?	N/A	N/A	N/A	
SOC 5 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?	+	+	+	There is some potential for more rural communities to benefit from the option through the reduction of social exclusion and rural deprivation.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	N	+	+	Will promote better strategic links that will assist inward investment. Creating more and better jobs.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	N	+	+	Will release some areas of the city from the impacts of traffic congestion.
SOC 8 To improve accessibility to essential services, facilities	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	+	++	++	Will promote improved access. Should also mention opportunities for demand responsive public transport.

and jobs.	dependency on the private car?				
	Will it improve access to jobs and services for all?				
ECONOMIC		1	1		
EC 1 To encourage	Will it assist in strengthening the local economy?				Will improve access to employment markets.
sustained economic growth.	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?				
EC 2	Will it encourage indigenous businesses?				Opens up areas for development. Better strategic
To encourage	Will it encourage inward investment?				access will help inward investment.
and accommodate	Will it make land and property available for business?	+	++	++	
both indigenous and inward	Will it improve economic performance across the Greater Norwich area?				
investment.	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3	Will it improve provision of local jobs?				One of the primary aims of the policy.
To encourage	Addition to the second state of the second sec				
efficient patterns of movement in	Will it improve accessibility to work, particularly by public	+	++	++	
support of	transport, walking and cycling?				
economic growth.	Will it reduce journey times between key employment				
	areas and key transport interchanges?				
	Will it improve efficiency and sustainability of freight				

	distribution? Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N	+-	+	There is provision in the option for improvements to local service delivery giving a beneficial impact on the economy but in a sustainable way. It will also assist in encouraging balanced housing and jobs growth through better access opportunities.

• POLICY OPTION: Transport

Environmental Impacts	Promotes strategic travel, which will increase emissions, but promotes more sustainable local trips. Overall though the impacts are mixed, but with the balance struck this is to be expected.
Social Impacts	Will assist the economy to develop and provide better access to essential services. The positive scores reflect the emphasis on offering the prospect of improved accessibility.
Economic Impacts	Strategic links will encourage inward investment. Generally very positive scores showing the links between better access in a more dispersed settlement pattern and opportunities for growth.

Overall summary:	There are mixed outcomes as the policy promotes strategic accessibility that will have some negative (particularly environmental) effects but this is balanced by approaches that encourage more sustainable local travel and provide access to key services. The stress in the option about improved rural accessibility improves the social score set.
ImpactsPossible mitigation measuresRecommended further research	New development in appropriate locations should ensure sustainable travel choices are available from the outset.
Considering cumulative impacts	Amend Policy wording to include mention of demand responsive transport solutions to improve further the (particularly) rural performance.

Area-wide policies - The Broads

Area-wide policies – Environmental assets

Area-wide policies – Environmental Assets

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Environmental Assets policy

++ Very positive	effects + Positive effects	fects		Very negat	ive effects	-	Negat	ive effects +- Mixed effects
N Neutral / insig	nificant effects		?	Uncertain e	effects	Na	a Sustai	inability objective is not applicable to this option
SA Objective		aking criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL ENV 1 To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, reduce congestion?Will it increase the proportion other than the car?Will it reduce the effect of HC environment?	of journeys o W traffic on p	using i beople	nodes	+-	+-	+-	Any effects are likely to be marginal. There are potential negative effects if safeguarding environmental assets causes development to be located where people have to drive further to services etc. Conversely, limiting development in areas will potentially benefit particular aspects of the environment e.g. avoiding potentially sensitive landscapes or natural areas, or avoiding congestion impacts. The promotion of Green Infrastructure will
	Will it encourage more benig Will new development be loc for people to travel?			e the need				increase the opportunities for and attraction of more benign modes of travel such as walking and cycling.
ENV 2 To improve the quality of the water environment	Will it improve the quality of t (streams, rivers, lakes etc)? Will it help to support wetland				++	++	++	Environmental assets include water based habitats, and the water environment will be a key part of green infrastructure. Therefore, the policy has a potential direct benefit for this objective.

ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+	+	+	Maintaining greenspaces will contribute to better air quality in specific locations, with a general contribution to overall air quality.
ENV 4 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? 	++	++	++	The policy will have a direct benefit on this objective, safeguarding specific sites and promoting improvements, including linkages between habitats and the provision of new ones. Nationally important sites already receive protection; increased efforts should be made to identify (in a general way), but particularly to 'protect' local areas.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	++	++	++	The policy will have a direct benefit on this objective, maintaining and enhancing rural and urban areas, including their general character and specific elements, through the safeguarding of existing assets and the provision of new ones.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	+-	+-	+-	It is possible that there will be some negative effects related to the location of development and travel generation as discussed under ENV1. Otherwise, potential effects are likely to be positive, particularly in relation to promoting more benign modes of travel, helping wildlife to adapt to climate change through linking habitats, and in providing greenspaces that will help to counteract temperature increases in urban areas. Also see ENV7 below.

ENV 7 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?	+	+	+	Green infrastructure has the potential to assist in providing sustainable drainage and so reducing flood-risk.
ENV 8 To provide for sustainable use and sources of water supply.	Will it minimise water consumption?	+	+	+	Many of the wildlife habitats are water-based, including rivers from which water is extracted. Maintaining the quality of the water habitat should also benefit the quality of water supply. If sustainable drainage is incorporated into green infrastructure this could help with groundwater recharge.
ENV 9 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? 	+-	+-	+-	The policy should have indirect benefits for this objective in terms of helping to guide development to appropriate locations. However, safeguarding areas as environmental assets could result in development being located in less favourable areas in terms of other considerations eg agricultural land quality. See also ENV1.

	Will it increase waste recovery for other means eg. energy generation?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	The policy should improve residents' access to informal open spaces and the countryside.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	+	+	As in SOC1. Also, improved pedestrian and cycle access with links to the countryside, through green infrastructure provision, should greatly assist in providing opportunities for informal recreation and exercise.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	Ν	N	N	Possible marginal benefits in relation to improving the educational resource for environmental subjects such as ecology, biology, geology, geography.

SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	N/a	N/a	N/a	N/a
SOC 5 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?	+-	+-	+-	The character of an area, which can be greatly affected by its environmental attributes, is an important part of "sense of place" and contributes to community identity. In addition, greenspaces and links provide an important community resource. Open spaces can be associated with a perception of crime or reduced personal safety, though such fears can be addressed by design.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	N/a	N/a	N/a	N/a
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	++	++	++	The policy will have a direct benefit for this objective. The provision and enhancement of greenspaces etc will improve the quality of localities, and their enjoyment by residents and visitors.
SOC 8 To improve accessibility to	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?	N/a	N/a	N/a	N/a

essential services, facilities and jobs.	Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all?				
ECONOMIC					
EC 1 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? 	+	+	+	Environmental improvements can help in economic regeneration, making areas more attractive to investors and encouraging businesses to locate there. In particular, a high quality environment with attractive countryside and heritage is an important factor in tourism and the attraction of visitors to the area. However there may be some effects on the environment of the economic growth.
EC 2 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? Will it support / encourage small city businesses? 	+	+	+	As in EC1.
EC 3 To encourage efficient patterns of movement in support of economic growth.	Will it improve provision of local jobs?Will it improve accessibility to work, particularly by public transport, walking and cycling?Will it reduce journey times between key employment areas and key transport interchanges?	+-	+-	+-	There are potential negative effects if safeguarding environmental assets causes development to be located where people have to drive further to employment. The promotion of Green Infrastructure will increase the opportunities for and attraction of more benign modes of travel such as walking and cycling; including potential links to employment

	Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?				areas.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	+	In considering business development consideration will need to be given to limiting the impacts on the local environment, and the potential for enhancement including green infrastructure.

• POLICY OPTION: Environmental Assets policy

Environmental Impacts	The policy option will contribute significantly to the achievement of SA environmental objectives, particularly relating to water environment, biodiversity and geodiversity, and landscapes/townscapes and the historic environment. There is the possibility of being some negative effects, related to traffic, climate change and best use of land, if safeguarding assets results in development being located in areas that are
	less favourable for other sustainability considerations, eg by increasing travelling distances, though this would be compensated by the opportunity for incorporating more sustainable modes of travel such as walking and cycling.

Social Impacts	space for recreation community identit	e main social beneficial effect will be on improving the quality of life for residents through environmental improvements and access to open ace for recreation etc. Appreciation of a "good" environment in which to live may contribute to a "sense of place" and so support nmunity identity and cohesion. There may also be some benefits arising from opportunities for environmental assets being an educational ource. However, there could be some social disbenefits in terms of fears over personal safety and perception of crime being associated n open-spaces.							
Economic Impacts	There would likely be general benefits to the economy from maintaining and enhancing the environmental assets of the area, through making								
Overall summary: • Impacts • Possible mitigatio • Recommended fur • Considering cumu	rther research	The policy will contribute significantly to the achievement of SA objectives. This primarily relates to environmental objectives (eg benefits for the water environment, biodiversity and geodiversity, landscapes/townscapes, and the historic environment) but also to social objectives (eg improved neighbourhoods, access to open-space for recreation, and "sense of place" and community identity and cohesion) and economic objectives (eg a good quality environment attracting new businesses / investment, and benefits for tourism by attracting visitors). There are some potential disbenefits, mainly relating to possible detrimental impacts on the location of development and the possibility of increased journey lengths, though this would be compensated by the opportunities for encouraging more sustainable modes of travel such as walking and cycling. This is recognised in the content of the transport and location of development options discussed elsewhere, therefore no wording amendments are considered necessary here. There is also the possibility of social disbenefits in terms of fears over crime and personal safety, and this would need to be addressed through the design of specific proposals. It would be helpful to state in the option that protection for locally significant assets will be investigated. When considering the strategic level of Core Strategy policies, there may be an alternative option to the proposed policy, which would be a "do nothing" approach. However, the policy option above accords with national and regional planning policy, which requires the protection and enhancement of a variety of environmental assets. Also, the proposed Regional Spatial Strategy (East of England Plan) requires the identification, protection and enhancement of areas and networks of green infrastructure. Consequently, not to protect and enhance environmental assets is not regarded as a credible option, and has not been specifically appraised though this is implicitly included in the appraisal of the policy, ie. if there is no p							

Area-wide policies – community, society and culture

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Community and Culture

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
N Neutral / insignificant effects ? Uncertain effects			Na	Sustainability objective is	s not a	oplicable to this option			
S	SA Objective		Decision making criteria		Short- M	lediu	Long- Co	mment	ts / Justification

			m Term 5-20	Term 20+ yrs	Inc. cumulative effects
			yrs		
ENVIRONMENTAL	-				
ENV 1	Will it reduce traffic volumes, ease the flow of traffic and				Promotes the safeguarding of healthier lifestyle and
To reduce the	reduce congestion?				travel choices.
effect of traffic on		Ν	Ν	+	
the environment.	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?				
ENV 2	Will it improve the quality of the water environment				
To improve the	(streams, rivers, lakes etc)?				
quality of the		N/A	N/A	N/A	
water	Will it help to support wetland habitats and species?				
environment					
ENV 3	Will it improve air quality?				

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?	N/A	N/A	N/A	
ENV 4Will it conserve / enhance natural or semi-natural habitats, and promote habitat connections?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?		N	N	+	More and improved, green spaces could increase biodiversity.
	Will it conserve / enhance species diversity, and in particular avoid harm to protected species?				
ENV 5 To maintain and enhance the quality of	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant?	N	N	+	Some improvements to public realm townscapes and landscapes long term.
landscapes, townscapes and the historic environment.	Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land?				
environment.	Will it protect and enhance features of historical, archaeological and cultural value?				
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	N/A	N/A	N/A	
	Will it increase the capacity of the area to withstand the effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7	Will it minimise the risk of flooding to people and property?				

The second second					
To avoid, reduce and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk?	N/A	N/A	N/A	
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	
water supply. ENV 9 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? 	N/A	N/A	N/A	

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	N	+	+	The policy seeks to improve communities but in the short term effects will be limited.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	+	+	This is a central aim of the policy. Effects will build over time.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	++	++	As above
SOC 4	Will it increase the range of types, sizes and affordability of				
To provide the opportunity to live	housing for all social groups?	N/A	N/A	N/A	

in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?				
SOC 5 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?	+	++	++	The policy positively promotes cohesion and crime reduction.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Ν	Ν	+	Promotes education and learning which will lead to reduced unemployment and higher earnings.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	Ν	+	+	May improve satisfaction of people with neighbourhoods and should promote better public space.
SOC 8 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?	Ν	+	+	Promotes services that are accessible by the new communities.

]
	Will it improve access to jobs and services for all?				
ECONOMIC	I				
EC 1 To encourage sustained	Will it assist in strengthening the local economy? Will it improve business development and enhance	N	N	+	Better health and education will contribute to a stronger economy and community cohesion and vibrancy will more generally help to create the
economic growth.	competitiveness?				conditions for local economies to thrive.
	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?				
EC 2 To encourage	Will it encourage indigenous businesses? Will it encourage inward investment?				Possibly see small positive effects, but the impacts of the policy will be marginal, however the effects of
and accommodate	Will it make land and property available for business?	N	N	N	greater vibrancy in more rural communities would be likely to have a more noticeable effect.
both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area?				
	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3 To encourage	Will it improve provision of local jobs?				
efficient patterns	Will it improve accessibility to work, particularly by public	N	Ν	N	
of movement in support of	transport, walking and cycling?				Possibly small positive effects as policy encourages improved access, indirectly supporting economic
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?				growth, overall effect judged to be neutral.
	Will it improve efficiency and sustainability of freight distribution?				

	Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N	Ν	Ν	Possibly small positive effects as policy encourages improved access, indirectly supporting economic growth, overall effect judged to be neutral.

• POLICY OPTION: Community and Culture

Environmental Impacts	Longer term position impacts could be considered positive as the policy looks to protect cultural assets, which could include environmental assets. Also looks to improve green spaces and access to them.
Social Impacts	Provides community health culture and leisure opportunities. Will be greatly positive if it can be implemented in full.
Economic Impacts	Positive impacts from improved, education and training. Some slight positive impacts from improved facilities and public realm.

Overall summary:	A positive policy, but will need to be implemented which will take time and be dependant on the detailed design of development proposals.
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	Effects will build over time.

Policies for places – Settlement Hierarchy

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Spatial Hierarchy – (i) Definition of hierarchy Option (a) main towns and Key Service Centres

(NB This option is specifically extracting the larger settlements and assessing the SA implications of this aspect. The 2 subsequent assessments seek to isolate the impacts for the use of service villages and other villages. It is considered that to undertake one overall assessment would mask the particular implications of the 3 individual parts)

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

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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? 	+-	+-	+-	Focussing facility, service, and job provision in main towns and KSCs will improve the level of service available for the major proportion of the population, and potentially enable pedestrian / cycle access for those living reasonably close. This would help to reduce traffic flows. However, such a high concentration would likely result in more traffic journeys from those that live further afield and need to access the services etc.

ENV 2 To improve the quality of the water	Will it improve the quality of the water environment (streams, rivers, lakes etc)? Will it help to support wetland habitats and species?	N/a	N/a	N/a	N/a
environment					
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	?	?	?	If development were to be concentrated in specific locations it might have the potential to worsen any existing air quality problems.
ENV 4 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? 	?	?	?	The concentration of development would have the potential to impact on biodiversity and landscape as existing assets are not evenly spread across the sub region.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	As ENV 4 above. Additionally an urban concentration may have the potential to impact upon the historic cores of towns and villages.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	+-	+-	+-	Focussing facility / service provision in a few settlements may assist in the provision of renewable / low carbon energy schemes eg community schemes and combined heat and power installations. Also see ENV1 and ENV3.

	Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	+-	+-	+-	Focussing facility / service provision in a few settlements could mean improvements would be made in those settlements, however it may leave other settlements vulnerable if investment is not made.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	+/-	+/-	+/-	Concentrating development may have the potential to put particular strain on local water resources, but it could also offer opportunities for demand to be made more efficiently.
ENV 9 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? 	+-	+-	+-	There should be benefits of making better use of existing and future facilities and brownfield opportunities in the larger settlements, though there may be related reduced use of existing facilities elsewhere.

		1		1	
	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?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+-	+-	+-	Focussing on the main settlements should enable more effective / improved service provision etc for the majority of the population. However, there would likely be disbenefits for the substantial population living in the smaller settlements / more rural areas, with difficulties in accessing the service centres.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+-	+-	+-	See SOC1
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? 	+-	+-	+-	See SOC1

	Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock?	+-	+-	+-	See SOC1. Most housing would be concentrated in the main settlements, which would not likely meet all local needs.
SOC 5 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?	+-	+-	+-	See SOC1
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+-	+-	+-	See SOC1
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their	+-	+-	+-	See SOC1

	neighbourhoods?				
SOC 8 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? 	+-	+-	+-	See SOC1
ECONOMIC					
EC 1 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? 				See SOC1. In particular, main settlements could benefit from improved provision of better quality employment sites.
EC 2 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? Will it support / encourage small city businesses? 	+-	+-	+-	See SOC1. In particular, focussing on main settlements could move investment / resources away from the more rural areas, to the detriment of rural diversification.
EC 3	Will it improve provision of local jobs?	+-	+-	+-	See SOC1 and ENV1
To encourage efficient patterns	Will it improve accessibility to work, particularly by public				

of movement in support of economic growth.	transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+-	+-	+-	See SOC1 and ENV1

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

• POLICY OPTION: Spatial Hierarchy – (i) Definition of hierarchy Option (a) main towns and Key Service Centres

Environmental Impacts	Environmental impacts are likely to be indirect and mixed. Benefits should accrue from concentrating resources, service provision, employment encouragement etc in the settlements where most population is located, particularly in relation to access and the potential for using more benign modes of travel such as public transport, cycling and walking, and the potential for low carbon energy schemes such as combined heat and power. However, these effects would not be apparent to the same degree in the smaller settlements / more rural areas where a significant proportion of the population is located, increasing journey lengths to services/ facilities / jobs etc.						
Social Impacts Social impacts are likely to be indirect and mixed. Benefits should accrue from concentrating resources, service provision, employment encouragement etc in the settlements where most population is located, particularly in relation to the potential for more effective service provision / better use of resources. However, this could disbenefit the smaller settlements / more rural areas where a significant proportion the population is located, potentially having a reduced level of services.							
Economic Impacts	Economic impacts are likely to be indirect and mixed. Benefits should accrue from concentrating resources, service provision, employment						
Overall summary: Impacts Possible mitigatio Recommended fur Considering cumu 	rther research	Environmental, social and economic effects are likely to be mixed. Whilst benefits should accrue for the main settlements, and the populations within or in easy reach of them, there are likely to be corresponding poor effects for the smaller and more rural settlements. Although the majority of the population is concentrated in the main settlements, especially Norwich, the area is predominantly a rural one, and there is a still a significant proportion of the population that lives in the many smaller settlements. Consequently, care should be taken over adopting an approach that may lead to an over-emphasis of negative effects on a very limited number of settlements.					

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Spatial Hierarchy – (i) Definition of hierarchy Option (b) inclusion of service villages in the hierarchy

(to be read in conjunction with option (i)(a)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL	Will it reduce traffic volumes, ease the flow of traffic and	+	+	+	The inclusion of "service villages" in the hierarchy
To reduce the effect of traffic on the environment.	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?				would help to avoid an over-concentration on a very limited number of settlements. This should enable reasonable access, including the opportunity for walking / cycling, to at least a basic level of services / facilities etc, in a large number of settlements. Similarly, it should reduce travel distances to this basic level of services for those living in the very small settlements with very limited facilities, or in the wider countryside. However air quality issues are more closely related to congestion than journey trip lengths.
ENV 2	Will it improve the quality of the water environment	N/a	N/a	N/a	N/a
To improve the quality of the	(streams, rivers, lakes etc)?				

water environment	Will it help to support wetland habitats and species?				
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+	+	+	Benefits should accrue from reduced vehicle journeys and journey lengths.
ENV 4 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? 	?	?	?	The concentration of development would have the potential to impact on biodiversity and landscape, as existing assets are not evenly spread across the sub region.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	As ENV 4.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? 	+-	+-	+-	Focussing facility / service provision mainly in a few major settlements and from the inclusion of service villages in the hierarchy may assist in the provision of renewable / low carbon energy schemes eg community schemes and combined heat and power installations. Also see ENV1 and ENV3.

	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	+-	+-	+-	Focussing facility / service provision mainly in a few major settlements and including service villages in the hierarchy would expand the number of settlements where there could be potential for improved infrastructure (flood risk reduction, drainage etc) for those settlements.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/a	N/a	N/a	N/a
ENV 9 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? 	+-	+-	+-	There should be benefits of making better use of existing and future facilities including brownfield potential in the selected settlements. However spreading to a wider range of settlements could mean a less efficient pattern emerges.

	Will it increase waste recovery for other means eg. energy generation?				
SOCIAL		1			
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	Focussing on the larger settlements should enable more effective / improved service provision etc for the majority of the population. Including service villages within the hierarchy should mean that the benefits are spread further into the wider rural area.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	+	+	See SOC1
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	+	+	See SOC1

SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+	+	+	See SOC1. Inclusion of "service villages" in the hierarchy would increase the potential for meeting local housing needs.
SOC 5 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?	+	+	+	There is some potential for enhanced community cohesion if smaller settlements are allowed to grow modestly.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+	+	+	See SOC1
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Potentially allowing some development will offer limited opportunities for localised improvements.
SOC 8 To improve accessibility to	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?	+	+	+	See SOC1

essential services, facilities and jobs.	Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all?				
ECONOMIC		·	·		
EC 1 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? 	+	+	+	See SOC1. In particular, main settlements could benefit from improved provision of better quality employment sites. The inclusion of service villages would give the opportunity for such benefits to spread further into the rural area.
EC 2 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? Will it support / encourage small city businesses? 	+	+	+	See SOC1. The inclusion of service villages would increase the potential for investment / resources to spread into the rural area.
EC 3 To encourage efficient patterns of movement in support of economic growth.	Will it improve provision of local jobs?Will it improve accessibility to work, particularly by public transport, walking and cycling?Will it reduce journey times between key employment areas and key transport interchanges?	+	+	+	See ENV1.

	Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?				
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?Will it attract new investment and skilled workers to the	+	+	+	Potentially allowing development in a wider range of settlements could lead to more vibrant settlements and business opportunities.
	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: Spatial Hierarchy – (i) Definition of hierarchy Option (b) inclusion of service villages in the hierarchy

	Environmental impacts are likely to be generally positive. Benefits should accrue from concentrating resources, service provision,
Environmental	employment encouragement etc in the settlements where most population is located, particularly in relation to access and the potential for
Impacts	using more benign modes of travel such as public transport, cycling and walking, and the potential for low carbon energy schemes such as
	combined heat and power. The inclusion of "service villages" in the hierarchy should help to avoid an over-concentration of impacts on a
	very limited number of settlements.
	These impacts are in some parts positive, but generally mixed or uncertain. Whilst concentrating development into more sustainable
	locations is positive and could reduce trips, spreading across a wider range of places could affect landscapes, townscapes and the historic
	environment. There is less likelihood of significant use of brownfield sites.
	Social impacts are likely to be indirect and generally positive. Benefits should accrue from concentrating resources, service provision,
Social Impacts	employment encouragement etc in the settlements where most population is located, particularly in relation to the potential for more effective
	service provision / better use of resources. The inclusion of "service villages" in the hierarchy should help to avoid an over-concentration on
	a very limited number of settlements.
	Importe under this booding are all positive. The potential for new development to aid the posial working of pottlements is also by a possibility.
	Impacts under this heading are all positive. The potential for new development to aid the social working of settlements is clearly a possibility.
	If accessibility is improved also, or facilities located in accessible locations there are benefits for a wider population.
	Economic impacts are likely to be indirect and generally positive. Benefits should accrue from concentrating resources, service provision,
Economic Impacts	employment encouragement etc in the settlements where most population is located, particularly in relation to potential job growth serving
	more people and good quality employment sites being available. The inclusion of "service villages" in the hierarchy should help to avoid an
	over-concentration on a very limited number of settlements and spread benefits into the wider rural area.
	Again there are positive effects under these factors as potential opportunities would be available in settlements, depending on the spread of
	villages and towns included the benefits could be even greater. The impacts are likely to be felt more in rural areas.

Overall summary:	Environmental factors receive a mixed score. Social and economic effects are likely to be indirect and generally positive. Benefits should accrue for the main settlements, and the populations within or in easy reach of them. Although the majority of the population is concentrated in the main settlements, especially Norwich, the area is predominantly a rural
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	one, and there is a significant proportion of the population that lives in the many smaller settlements. With the inclusion of "service villages" in the hierarchy this should help to avoid an over-concentration on a very limited number of settlements and spread benefits into the wider rural area.

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised:

Spatial Hierarchy – (i) Definition of hierarchy Option (c) inclusion of "other villages" in the hierarchy

(to be read in conjunction with option (i)(a) and (b)).

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	cts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

ENV 1 To reduce the effect of traffic on the environment.Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?+/-+/-+/-+/-The inclusion of "other villages in the hierarchy r have some minor effects if people have to travel higher level services. However it may assist in th retention of very local services etc, and so help prevent some journeys to higher-order settlementWill it reduce the effect of HGV traffic on people and the environment?Will it encourage more benign modes of travel?H/-H/-H/-H/-	SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
To reduce the effect of traffic on the environment.reduce congestion?have some minor effects if people have to travel higher level services. However it may assist in th retention of very local services etc, and so help prevent some journeys to higher-order settlementWill it reduce the effect of HGV traffic on people and the environment?Will it encourage more benign modes of travel?Have some minor effects if people have to travel higher level services. However it may assist in the retention of very local services etc, and so help prevent some journeys to higher-order settlement	ENVIRONMENTAL		+/-	+/-	+/-	The inclusion of "other villages in the hierarchy may
	To reduce the effect of traffic on	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				have some minor effects if people have to travel to higher level services. However it may assist in the retention of very local services etc, and so help to prevent some journeys to higher-order settlements.
for people to travel? N/a ENV 2 Will it improve the guality of the water environment N/a N/a N/a	FNV 2		N/a	N/a	N/a	N/a

To improve the quality of the	(streams, rivers, lakes etc)?				
water environment	Will it help to support wetland habitats and species?				
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+/-	+/-	+/-	See ENV1. Some benefits could accrue from reduced vehicle journeys and journey lengths, but if people travel to higher order facilities this could impact on amenity.
ENV 4 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/a	N/a	N/a	N/a
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	N/a	N/a	N/a	N/a
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the	?	?	?	If development is spread more widely the potential for economies of scale for new community based renewable energy schemes could be limited. (See ENV1 and ENV3).

	effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	+/-	+/-	+/-	Inclusion of "other villages" in the hierarchy could increase the potential for development to affect flood risk areas or drainage, however improved infrastructure provision, such as drainage might result, in a wider number of settlements.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/a	N/a	N/a	N/a
ENV 9 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? 	+/-	+/-	+/-	Inclusion of "other villages" in the hierarchy could have the benefit of making better use of existing and future facilities, though there may be related reduced use of existing facilities elsewhere. Any effects are likely to be minor from introducing this element into the Option. Overall better efficiencies would occur if there is a concentration of development in larger urban areas.

	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?				
SOCIAL			1		
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	Inclusion of "other villages", as well as 'service villages' in the hierarchy could give potential benefits to tackle rural regeneration.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Ν	N	N	See SOC1 above, but impact is likely to be minimal. Access to health facilities unlikely to be affected.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? 	Ν	Ν	Ν	Some potential benefits to tackle rural regeneration.

	Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+	+	+	Inclusion of "other villages" in the hierarchy would increase the potential for meeting local housing needs.
SOC 5 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? 	+	+	+	Some potential benefits to tackle rural regeneration.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+	+	+	Inclusion of "other villages" in the hierarchy would increase the potential for providing local employment.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	Ν	N	N	See SOC1.
SOC 8	Will it improve accessibility to key local services and	+/-	+/-	+/-	See SOC1, however it is possible that spreading

To improve accessibility to essential services, facilities and jobs.	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?				development could also result in increased travel by car.
	Will it excite in etremetheming the level economy?		<u> </u>		
EC 1 To encourage	Will it assist in strengthening the local economy?	+	+	+	Inclusion of "other villages" in the hierarchy would increase the potential for providing local
sustained	Will it improve business development and enhance				employment., particularly for more rural settlements.
economic growth.	competitiveness?				This could aid rural regeneration, and also tackle
	Will it reduce vulnershility to economic checks?				rural deprivation. However the opportunities will vary with the nature of each settlement.
	Will it reduce vulnerability to economic shocks?				with the hature of each settlement.
	Will it promote growth in key sectors?				
	Will it increase vitality & viability of town centres and				
	improve economic diversity?				
EC 2	Will it encourage indigenous businesses?	+	+	+	See EC1.
To encourage	Will it encourage inward investment?				
and accommodate	Will it make land and property available for business?				
both indigenous	Will it improve economic performance across the Greater				
and inward	Norwich area?				
investment.	Will it compart (an accuracy source diversification 2				
	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3	Will it improve provision of local jobs?	+	+	+	See EC1 and ENV1.
To encourage					
efficient patterns of movement in	Will it improve accessibility to work, particularly by public transport, walking and cycling?				
support of					

economic growth.	 Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	+	See EC1 and ENV1.

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

• POLICY OPTION: (i) Definition of hierarchy Option (c) inclusion of "other villages" in the hierarchy

	The inclusion of "other villages in the hierarchy may have some minor effects. In particular, it may assist in the retention of very local services
Environmental	etc, and so help to prevent some journeys to higher-order settlements; and may have some benefits in terms of infrastructure provision, such
Impacts	as drainage, and in making use of existing facilities / resources.
-	There are positive aspects to the inclusion of 'other villages' into the hierarchy. Because the scale of development is likely to be small there
	are considered to be few impacts on the environment of the area.

Social Impacts	Inclusion of "other villages" in the hierarchy would increase the potential for meeting local housing needs, and provision of local employment. Although amounts may be relatively small, this can be very important for specific communities, and in total can be an important contribution to overall provision. There are positive aspects to the inclusion of 'other villages' into the hierarchy. Because the scale of development is likely to be small there are considered to be fewer beneficial social impacts on the area, unlike the inclusion of larger settlements into the hierarchy as for Option (b).					
Economic Impacts	Inclusion of "other villages" in the hierarchy would increase the potential for providing local employment. Although amounts may be relatively small, this can be very important for specific communities, and in contributing to the overall local economy. This could be particularly important in the rural areas where tackling rural deprivation and rural regeneration are important.					
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		The inclusion of "other villages in the hierarchy may have some minor environmental benefits, particularly, in terms of possibly assisting in the retention of very local services etc, and so helping to prevent some journeys to higher-order settlements. However with a more dispersed pattern of development there is potential for increased use of private cars. There may be other benefits in terms of infrastructure provision, such as drainage, and in making use of existing facilities / resources. There are also likely to be some social and economic benefits, such as increasing the potential for meeting local housing and employment needs. It will be important to consider what mitigation measures might be appropriate to prevent an overreliance on private cars. Attention should be given to the presence of buses when deciding the criteria for inclusion of settlements.				

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Town centre hierarchy

Option Appraised:

TOWN CENTRE HIERARCHY:

Option (a) Concentration of shops and services in only the defined town centres for which a growth potential has been identified.

Option (b) Dispersal of shops and services over a greater number of easily accessible defined town centres.

Option (c) The inclusion of free standing out-of-town large stores as district centres in the retail hierarchy in Option (a).

Option (d) The inclusion of free standing out-of-town large stores as district centres in the retail hierarchy in Option (b).

SCORING SYSTEM:

++ Very positive		Very negat			0	ive effects +- Mixed effects
N Neutral / insig	nificant effects	? Uncertain	effects	Na	Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL	-					
ENV 1 To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys other than the car?		+ -	-		Option (a): Initial mixed benefits would become increasingly negative as smaller centres start to decline leading to the need for greater travel to the largest centres from wider catchments.
	Will it reduce the effect of HGV traffic on p environment?	people and the	+	+	++	Option (b): Initial benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement policies and local population growth with good non-
	Will it encourage more benign modes of tr	avel?				car access.

	Will new development be located such to reduce the need for people to travel?	+-			Option (c): Initially as for Option (a), but medium term negative impacts would increase as out-of- town centres grow at the expense of the no longer protected established town and district centres and increase the need to travel by car.
		+	+ -	-	Option (d): Initially as for Option (b) but could gradually undermine the potential enhancements of the smaller centres and create the need for additional travel.
ENV 2 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	Options (a), (b), (c) and (d): Impacts arising from new development would be location and site specific. The hierarchy would coincide with places where mitigation measures would be in place or required to avoid adverse impacts on water resources. Suitably treated and directed water runoff could help to support wetland habitats.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+ -	-		As per ENV 1. Option (a): Initial mixed benefits would become increasingly negative as smaller centres start to decline leading to the need for greater travel to the largest centres from wider catchments.
		+	+	++	Option (b): Initial benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement policies and population growth with good non-car access.
		+-			Option (c): Initially as for Option (a), but medium term negative impacts would arise more quickly as out-of-town centres grow at the expense of no longer protected established town and district centres and increase the need to travel car.

		+	+ -	-	Option (d): Initially as for Option (b) but could gradually undermine the potential enhancements of the smaller centres and create the need for additional travel.
ENV 4 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	Ν	N	Options (a), (b), (c) and (d): Impacts arising from new development would be location and site specific. The hierarchy would coincide with settlements and existing developments where measures would be in place or required to avoid adverse impacts on natural habitats and sites of nature conservation importance.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+-	-+-	+ -	Option (a): Initial mixed benefits would become increasingly negative as brown field land is developed and smaller centres increasingly decline with potential adverse impacts on their townscapes. Option (b): This would provide for continued support for the potential enhancement of a wider number of town centres than Option (a) and the take up of additional brown field land, but there is a lack of available land for medium/ long term extensions to some existing town centres.
		+ -			Option (c): Would exacerbate the negative impacts of Option (a in the medium term. The initial expansion of out-of-town centres could take up some brown field land but overall would require additional green field land with increasingly adverse impacts on the landscape, and indirectly through adverse retail impacts, on the townscapes of potentially declining small centres.
		+ -	-	-	Option (d): The expansion of out-of-town shopping areas would exacerbate the negative retail and by

					implication townscape etc impacts on Option (b) town centres over the medium to longer terms with the same brown field and green field implications as for Option (c).
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the	+-	-		Option (a): Initial mixed benefits would become increasingly negative as smaller centres start to decline leading to the need for greater travel to the largest centres from wider catchments with increased impacts on energy use, climate change and road safety risks.
	effects of climate change? Will it ensure that the risks to lives, land and property are minimised?	+-	+	++	Option (b): Initial mixed benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement policies and local population growth with good non-car access.
		+ -			Option (c): Initially as for Option (a), but medium term negative impacts would arise more quickly as out-of-town centres grow at the expense of no longer protected established town and district centres and increase the need to travel by car.
		+ -	+ -	-	Option (d): Initially as for Option (b) but could soon undermine the potential enhancements of the smaller centres and create the need for additional travel.
ENV 7 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?	N	Ν	N	Options (a), (b), (c) and (d): Impacts arising from new development would be location and site specific. The hierarchy would coincide with settlements and existing developments where measures would be in place or required to avoid adverse impacts related to potential flooding while providing for the use of appropriate types of drainage including sustainable urban drainage

					systems where possible.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N	N	N	Options (a), (b), (c) and (d): Impacts arising from new development would be location and site specific. The hierarchy would coincide with settlements and existing developments where measures would be in place or required to provide for adequate water supplies. Building regulation changes will improve general water use conservation in the medium to long terms.
ENV 9 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? 	+ -	-		Option (a): Initial benefits would become increasingly negative as town centre sites become developed and green field/ agricultural land could become under pressure to provide for further expansion. Energy consumption would rise with the declines of smaller centres leading to the increased need to travel to the larger centres.
	Will it avoid the loss of good quality agricultural land and preserve soil resources? Will it minimise energy consumption and promote energy efficiency?	+-	+	+	Option (b): Initial mixed benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement policies, population growth and the potential to redevelop brown field land.
	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?	-			Option (c): The adverse impacts of Option (a) would increase due to the increased need to travel by car as out-of-town shopping areas grow in unsustainable locations at the expense of established centres, while potentially requiring green field land for expansion and affecting efficiency of land use in the smaller centres. Option (d): Would detract from the benefits of Option (b) with similar impacts to Option (c) regarding the use of land.

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+-	-		Option (a): Initial mixed benefits would become increasingly negative as smaller centres decline leading to increased deprivation and the need for greater travel to the largest centres with less easily accessible services from larger catchments. Mitigation measures would be required to slow the losses of commercial premises to other uses that could possibly slow the rates of decline in the smaller centres.
		+	+	++	Option (b): Initial benefits would slowly improve as the spread of large and smaller centres maintain and enhance their provisions aided by town centre enhancement policies to provide for more easily accessible services. Mitigation measures to slow the losses of commercial premises could again be required as for Option (a).
		-			Option (c): The adverse impacts of Option (a) would increase more quickly due to the increased need to travel by car as out-of-town centres grow in unsustainable locations at the expense of established smaller town and district centres.
		+-	-	-	Option (d): The expansion of out-of-town district centres would increasingly detract from the benefits of Option (b) in the medium to longer terms as a result of expanding out-of-town shopping facilities.

SOC 2	Will it improve access to high guality health facilities?			1	Ontion (a): Lloolth provisions are loss dependent on
To maintain and	Will it improve access to high quality health facilities?	+ -	-		Option (a): Health provisions are less dependent on a town centre hierarchy but increasing car travel to
improve the	Will it encourage healthy lifestyles? How?				fewer less accessible centres at the expense of
health of the					walking and cycling would have increasingly
whole population	Will it provide adequate health infrastructure for existing				negative health impacts.
and promote	and new communities?				nogativo notiti inpuoto.
healthy lifestyles.		+	+	++	Option (b): Health provisions impact would be as for
	Will the links between poorer health and deprivation be addressed?Will links to the countryside be maintained and enhanced?				Option (a). However health and deprivation benefits should slowly improve as the greater numbers of protected centres maintain and enhance their provisions aided by town centre enhancement policies to provide for more easily accessible
					services by walking and cycling to an increasing local population.
		-			Option (c): This option would further detract from the impacts of Option (a) due to the potentially adverse impacts of expanding out-of-town stores on the established smaller centres and ease of access to a range of services in particular.
		+ -	-		Option (d): This option would further detract from the impacts of Option (b) due to the potentially adverse impacts of expanding out-of-town stores on the established smaller centres and ease of access to a range of services in particular.
SOC 3	Will it improve qualifications and skills for both young				The sustainability appraisal for the public
To improve	people and amongst the workforce?				consultation issues and options for a town centre
education and					hierarchy considered this sustainability objective to
skills.	Will it help to retain key workers and provide more skilled				be not applicable. The definitions of town centres
	workers from school leavers?				however will form foci for all town centre uses as
	Will adapte advantion infrastructure he provided for				defined by government guidance in PPS 6. While
	Will adequate education infrastructure be provided for existing and new communities?				these do not specify educational facilities, enhanced
	existing and new communities?				and easily accessible shops and services would provide opportunities for practical skills training, the
	Will it promote lifelong learning and skills training?				retention of workers especially in rural areas, and
L			1		recontion of workers especially in rular aleas, and

					varying reductions in deprivation.
	Will links between lower levels of education and deprivation be addressed?	+ -	-		Option (a): An initial varying ease of accessibility to training and jobs would be eroded by gradual declines in the smaller, less protected centres.
		+	+	++	Option (b): Provisions for the enhancement of a wider range of centres would provide for increasing opportunities more closely allied to provisions for population growth.
		+-			Option (c): The gradual declines in the smaller centres could be accelerated by expanding out-of- town shops and services where training and job opportunities would increase albeit in unsustainable locations. This would exacerbate rural deprivation and worsen accessibility to suitable job and training opportunities.
		+-	-	-	Option (d): This would weaken the benefits of Option (b) by potentially increasing training and job opportunities in increasingly unsustainable locations to the detriment of the smaller centres and rural deprivation.
SOC 4 To provide the opportunity to live	Will it increase the range of types, sizes and affordability of housing for all social groups?	Na	Na	Na	
in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?				
	Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable				

	communities?				
SOC 5 To build community identity, improve social welfare, and reduce crime and anti-social activity.	Will it make best use of existing housing stock? 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?	+	+ -	+ -	Option (a): The enhancement of community activities through for example, enhanced cultural and leisure facilities in a limited number of defined centres would have limited positive effects overall. Crime reduction measures would be carried out in those centres. Mixed communities could be encouraged through mixed-use developments in the larger centres. Declining unprotected smaller centres would reduce the overall benefits, albeit the quality of community life and the existence of crime largely reflect the residents.
		+	+ +	++	Option (b): The benefits of Option (a) would be more widespread with wider impacts, albeit the scope for mixed use developments could be more restricted in the smaller centres.
		-	-	-	Option (c): The expansion of out-of-town facilities could reduce the benefits of Option (a) through their unsustainable locations and increasing negative impacts on established and unprotected smaller centres.
		+ -	+-	-	Option (d): The benefits would remain mixed due to the gradual weakening of the advantages of option (b) arising from the potential declines of smaller centres.
SOC 6 To offer more opportunities for	Will it reduce unemployment overall? Will it help to improve earnings?	+ -	+ -	-	Option (a): Enhanced provisions in a limited number of centres would increase job opportunities and possibly earnings. However the overall benefits

rewarding and satisfying					could be reduced by declining smaller centres.
employment for all.		+	+	+ +	Option (b): This option could lead to a wider availability of jobs in shops and services.
		+ -	-		Option (c): Job opportunities could increase in unsustainable locations at the expense of established and declining smaller centres.
		+	-	-	Option (d): As for Option (c) but with slightly weaker adverse impacts on the smaller centres.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?				Town and district centres would continue to be a focus for enhancements to improve the quality of public open spaces within them while providing for shops and services that would increase peoples' satisfaction with their neighbourhoods. The expansion of out-of-town facilities however could weaken the provisions of such facilities in existing centres, which in turn would require additional investment to maintain their attraction.
		+ -	+ -	-	Option (a): The selection of a limited number of centres could limit the influence of potential benefits. If there were a decline in the smaller centres as well this would compound the problem.
		+	+	+ +	Option (b): Would have wider benefits but more centres could require increasing investment overall to maintain their attractions.
		+ -	-		Option (c); Would accentuate the disadvantages of option (a).
		+	-	-	Option (d): Could have weaker adverse impacts than option (c).

SOC 8 To improve accessibility to essential	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?	+ -	-		Option (a): Initial mixed benefits would become increasingly negative as smaller centres start to decline leading to the need for greater travel to the largest centres from wider catchments.
services, facilities and jobs.	Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all?	+	+	++	Option (b): Initial benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement policies and local population growth with good non- car access.
		+-			Option (c): Initially as for Option (a), but medium term negative impacts would increase as out-of- town centres grow at the expense of the no longer protected established town and district centres and increase the need to travel by car.
		+	+ -	-	Option (d): Initially as for Option (b) but could gradually undermine the potential enhancements of the smaller centres and create the need for additional travel.
ECONOMIC		1	1	1	
EC 1 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?	+	+ -	+ -	Option (a): Initial benefits would become reduced as smaller centres start to decline. However the enhancement of the larger centres could attract major retailers and service providers who boost local economic confidence.
	Will it promote growth in key sectors?	+	+	+ +	Option (b): Initial benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement

	Will it increase vitality & viability of town centres and improve economic diversity?	+	-+-		 policies and local population growth. Option (c): Could assist in strengthening the overall local economy through the attraction of major retailers and service providers, but could exacerbate adverse economic impacts on the smaller centres. Option (d): Could assist the overall economy as for Option (c) but could adversely impact upon the smaller centres to a lesser extent.
EC 2 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?	+	+++	+ ++	Option (a): This option would achieve these aims in limited locations. Option (b): These aims could be achieved over a wider area, which would be of greater assistance to urban and rural diversification in the medium and longer terms. Option (c): Could attract investment but have mixed
	Will it support / encourage small city businesses?	+	+ -	-	adverse impacts on local centres and the potential for rural diversification.
		+	+	+ -	Option (d): Would detract from the benefits of Option (b) for rural diversification if local and small centres suffer declines in the medium to long terms.
EC 3 To encourage efficient patterns of movement in support of	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling?	+ -	-		Option (a): Initial mixed benefits would become increasingly negative as smaller centres start to decline leading to the need for greater travel to the largest centres from wider catchments.
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?	+	+	+ +	Option (b): Initial benefits would slowly improve as the smaller centres maintain and enhance their provisions aided by town centre enhancement

	Will it improve efficiency and sustainability of freight distribution?Will it support provision of key communications infrastructure?	+-			 policies, local population growth and improvements to public transport, walking and cycling facilities. Option (c): Initially as for Option (a), but medium term negative impacts would increase as out-of-town centres grow at the expense of the smaller town and district centres and increase the need to travel by car.
		+	+-	-	Option (d): Initially as for Option (b), but could increasingly adversely affect the smaller centres and create the need for additional travel.
EC 4 To improve the social and environmental	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?	+-	+ -	-	Option (a): Would concentrate adverse impacts but also the benefits in limited areas that could decline in the smaller centres to the detriment of residents' needs.
performance of the economy.	Will it attract new investment and skilled workers to the area? Will it maintain existing business and employment provision?	+	++	+	Option (b): Would spread the potential benefits more widely in sustainable locations. Longer-term land needs to expand centres could increase environmental impact.
	Will it provide employment in the best locations to serve urban and rural residents?	+-	-		Option (c): Would attract new investment but increase environmental impacts on out-of-town sites and adversely affect smaller centres and rural employment provisions.
		+ -	+ -	-	Option (d): Would weaken the benefits of option (b) by not providing for jobs in the most sustainable locations and increasing the environmental impacts of expansion, while contributing towards the decline of smaller centres.

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

POLICY OPTION: TOWN CENTRE HIERARCHY:

Option (a) Concentration of shops and services in only the defined town centres for which a growth potential has been identified. Option (b) Dispersal of shops and services over a greater number of easily accessible defined town centres. Option (c) The inclusion of free standing out-of-town large stores as district centres in the retail hierarchy in Option (a). Option (d) The inclusion of free standing out-of-town large stores as district centres in the retail hierarchy in Option (b).

Environmental Impacts	Impacts are mostly positive for all options in the short term. However they become increasingly negative over the medium and longer terms for options (a) and (c) in particular due to the potential declines of smaller less well protected centres, impacts on their townscapes, the declining accessibility of service centres, the need to travel further for shops and services, and an increasing need for green field land to expand successful defined out-of-town district centres. Option (b) has the most positive benefits of providing easily accessible facilities over a wider area, reducing the need to travel, providing for easier non-car access and providing more options for the development of brown field land. Additionally there is more opportunity for 'one stop' shopping in one location, rather than several trips to smaller centres. Option (d) dilutes such benefits by gradually increasing the need to travel and requiring more green field land for expansion.
Social Impacts	Impacts are positive or mixed for all options in the short term. However they become increasingly negative over the medium and longer terms for options (a) and (c) in particular due to the potential declines of smaller less well protected centres, the declining accessibility of service centres, the need to travel further for shops and services, and an increasing negative impact on rural deprivation exacerbated by the potential expansion of defined out-of-town district centres. Option (b) has the most positive benefits of providing for more easily accessible facilities over a wider area, reducing the need to travel, providing for easier non-car access to jobs, training and facilities with the benefit of healthier lifestyles, and aiding community cohesion. Option (d) dilutes such benefits by gradually increasing the need to travel and reducing potential overall accessibility through the lack of non-car access options.
Economic Impacts	There is a greater range of economic benefits from all options as population growth will increase demand and strengthen the local economy. However the enhancement of only the larger centres would lead to declines in the less protected centres thus reducing the ranges of and access to jobs in the latter locations, although there is a need to keep up investment in the larger centres in the longer term as well, although there has not previously been any difficulty in this regard. Option (b) produces the most medium and long-term benefits and sustainable employment locations with good accessibility whereas the encouragement of out-of-centre facilities in options (c) and (d) weakens the benefits to the smaller centres in particular.

Overall summary:	The environmental, social and economic impacts suggest that overall Option (b) would provide for the most appropriate distribution of town and local centres. However while such a hierarchy would provide a suitable context for the consideration of the most appropriate new retail, services, cultural and leisure developments for each centre, the potential
ImpactsPossible mitigation measures	loss of shops and services in other places also needs to be addressed to reduce negative impacts of rural deprivation and social exclusion.
 Recommended further research 	
Considering cumulative impacts	Suggested mitigation measures therefore include the need for a test to ensure the existence of commercial interests in the continued operation of shops and services in particular which are the subject of proposed changes of use to non-commercial uses.

Policies for places – Norwich Policy Area – Major locations for Growth

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Locations for Growth and Change in the NPA Technical Consultation Option 1 (August 2008)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL				1	· · · · · · · · · · · · · · · ·
ENV 1 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? 	Ν	++	++	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)
ENV 2 To improve 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
quality of the		N	N	N	growth locations in the Norwich Policy Area. This is

water environment	Will it help to support wetland habitats and species?				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). 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.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Ν	-	-	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.
ENV 4 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? 	Ν	+/-	+/-	 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: River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species

					 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 Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure 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. (Could be strengthened by a general reference to habitat creation and environmental excellence.)
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	N	+-	+-	Policy aims to protect local valued landscapes. However, large-scale greenfield development will significantly change the existing agricultural landscape. 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.
					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. This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option (Consider whether landscape issues should be strengthened in general reference.) NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	Ν	++	++	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. More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO ₂

					generation. Combined heat and power is also positively promoted. 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.
ENV 7 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.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N	-	-	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 fro 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 unsuited to the promotion of water minimisation measures.
ENV 9 To make the best	Will it minimise consumption of materials and resources?				Maximises brownfield potential in the city within the limits of current urban capacity and commitments,

use of resources, including land and energy, and to minimise waste production.	 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? 	N	+-	+-	 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.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	N	+	+	Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.
SOC 2 To maintain and	Will it improve access to high quality health facilities?				It is likely that major green field developments are better suited to designing in green infrastructure

improve the health of the whole population and promote healthy lifestyles.	Will it encourage healthy lifestyles? How?Will it provide adequate health infrastructure for existing and new communities?Will the links between poorer health and deprivation be addressed?Will links to the countryside be maintained and enhanced?	Ν	++	++	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 promote good links to the surrounding countryside and green infrastructure, walking and cycling. Health care provision promoted. (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.)
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	Ν	+	+	All locations cater for new secondary schools.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable 	Ν	++	++	 Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings. 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

	communities? Will it make best use of existing housing stock?				funding raises issues about how much or whether 40% affordable housing would be delivered. This objective scores very positively because there is a high degree of certainty that affordable housing can be met.
SOC 5 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.
SOC 6 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.
SOC 7 To improve the quality of where	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

people live.	Will it improve the satisfaction of people with their neighbourhoods?				wide range of local facilities.
SOC 8 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.
ECONOMIC					
EC 1 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.
EC 2 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 GreaterNorwich area?Will it support / encourage rural diversification?Will it support / encourage small city businesses?	N	++	++	As above

EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Ν	++	++	Co-location of strategic housing growth and employment locations.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Ν	+	+	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

Technical Consultation Option 1 (August 2008)

(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.).

Environmental Impacts This option maximises opportunities for sustainable travel on the A11 corridor which has established good quality bus infrastructure closer of 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 form 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.							
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.							
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.							
n measures ther research lative impacts	 Policy generally performs very well against sustainability criteria. Some improvement to policy wording required to make the implicit explicit. 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. Need to investigate: strengthening consideration of landscape impacts and potential for innovative use of the railway. 						
	the approaches N benefit form choic option could have significant enhance these positive asp use of greenfield I growth is being pr Social aspects scor good access to jol Requires commun The policy scores relation to, and su						

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Locations for Growth and Change in the NPA Technical Consultation Option 2 (August 2008)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	cts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAI	-				
ENV 1 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? 	Ν	+	+	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.

					In Long Stratton there will be environmental improvements arising from removal of through traffic. (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)
ENV 2 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	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). 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.
ENV 3 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.
ENV 4 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?	+/-	+/-	 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: River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species 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 Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure 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.

				(Could be strengthened by a general reference to habitat creation and environmental excellence.)
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+-	+-	Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape. 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. 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. This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option (Consider whether landscape issues should be strengthened in general reference.) NOTE All landscape comments need to be reviewed to consider emerging information on historic

				heritage.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	+	+	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. More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO ₂ generation. Combined heat and power is also positively promoted. 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.
ENV 7 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?	++	++	All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems.
	Will it promote the use of sustainable drainage systems to			There is no evidence to indicate that this growth option would lead to any particular risks in terms of

	reduce run off?			increased off-site/downstream flood risk that cannot adequately be mitigated through good design.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	-	-	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 fro 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 unsuited to the promotion of water minimisation measures.
ENV 9 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? 	+-	+-	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

	Will it increase waste recovery for other means eg energy generation?			amount of greenfield land. Major growth is predicated on high quality public transport services and a significant shift from people using their cars.
SOCIAL			1	
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively?	+	+	Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	++	++	 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 and green infrastructure, walking and cycling. Health care provision promoted. (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).
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce?Will it help to retain key workers and provide more skilled workers from school leavers?	+	+	The education solution for Wymondham at this level of growth causes high school capacity problems.

	 Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 			
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	++	++	 Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings. 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. This objective scores very positively because there is a high degree of certainty that affordable housing can be met.
SOC 5 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? 	++	++	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.

SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	++	++	 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. Growth in Long Stratton is less well related or connected to strategic employment sites although there some local opportunities will be created.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	+	+	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.
SOC 8 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? 	+	+	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.

				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.
ECONOMIC				
EC 1 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? 	++	++	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.
EC 2	Will it encourage indigenous businesses?			
To encourage and accommodate	Will it encourage inward investment? Will it make land and property available for business?	++	++	As above
both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area?			
	Will it support / encourage rural diversification?			
	Will it support / encourage small city businesses?			
EC 3 To encourage	Will it improve provision of local jobs?			Smaller scale major growth locations less likely to support bus services and local services. Education
efficient patterns of movement in support of	Will it improve accessibility to work, particularly by public transport, walking and cycling?	+	+	solution for Wymondham less than ideal.
economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?			
	Will it improve efficiency and sustainability of freight			

	distribution? Will it support provision of key communications infrastructure?			
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	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							
	Technical Consultation Option 2 (August 2008)						
Environmental Impacts	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 form 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, 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.						
	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.						
Social Impacts	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.						
	Investment required fir the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing.						
Economic Impacts	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.						
	The Long Stratton Bypass will improve strategic access along the A140 and my give a local boost to Long Stratton.						

Overall summary:	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
Impacts	are compromised. Uncertainty over the funding of a Long Stratton bypass could have consequent impacts on provision of
Possible mitigation measures	and access to other social infrastructure also negatively impact in this way.
Recommended further research	
Considering cumulative impacts	
J. T.	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.
	Need to investigate:
	 strengthening consideration of landscape impacts and potential for innovative use of the railway.

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Locations for Growth and Change in the NPA Technical Consultation Option 3 (August 2008)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	cts		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTA ENV 1 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,

					 A140 (N&S of Norwich southern bypass) and NE Norwich travel corridors. (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)
ENV 2 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	Ν	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 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). 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.
ENV 3 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.

ENV 4 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: River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species 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 Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11; increased visitor pressure 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 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. (Could be strengthened by a general reference to habitat creation and environmental excellence.)
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+/-	+/-	Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape. 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. 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. This option is no better or worse than the other two and the appraisal concludes there are mixed effects for this option

				strengthened in general reference.) NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?	+	+	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. More sustainable, resource and energy efficient development is positively promoted eg encouraging mixed use development to reduce per capita CO ₂ generation. Combined heat and power is also positively promoted. 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.
ENV 7	Will it minimise the risk of flooding to people and property?			

To avoid, reduce and manage flood risk.	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.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	-	-	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 fro 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 unsuited to the promotion of water minimisation measures.
ENV 9 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? 	+/-	+/-	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

	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?			 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. Part of the Mangreen site may involve the reuse of land following the extraction of minerals.
SOCIAL SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively?	+	+	Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	++	++	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 and green infrastructure, walking and cycling. Health care provision promoted.

				(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/Costessey).
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	+	There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	++	++	 Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings. 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. This objective scores very positively because there is a high degree of certainty that affordable housing can be met.
SOC 5 To build	Will it encourage engagement in community activities?			There is no indication that development at the locations promoted by this option will lead to

community identity, improve social welfare, and reduce crime and anti-social activity.	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?	++	++	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.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	++	++	 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. Long Stratton and Mangreen are less well-related or connected with strategic employment locations. For Mangreen bus links are not well developed.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	+	+	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.
SOC 8	Will it improve accessibility to key local services and			Major growth locations in this option have a greater

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?	+		+	 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. 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. 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)
 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? 	?		+	Unsure of the impacts on the economy and economic diversity of introducing a further strategic employment site on A140 corridor south of A47. There is less certainty that economic growth would be delivered as well as for options 1 or 2.
	 Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all? Will it assist in strengthening the local economy? 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 	dependency on the private car? Will it improve access to jobs and services for all? Will it assist in strengthening the local economy? 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?	Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all? Will it improve access to jobs and services for all? 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 increase vitality & viability of town centres and improve economic diversity?	Will it improve accessibility for all whilst reducing dependency on the private car? Will it improve access to jobs and services for all? Will it improve access to jobs and services for all? 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 improve growth in key sectors? Will it increase vitality & viability of town centres and improve economic diversity?

To encourage and accommodate both indigenous and inward investment.	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?	++	++	As above
	Will it support / encourage small city businesses?			
EC 3 To encourage efficient patterns of movement in	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling?	+	+	Growth is more dispersed in this option with more limited access to a choice of strategic employment sites, especially by bus, walking and cycling.
support of economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?			
	Will it improve efficiency and sustainability of freight distribution?			
	Will it support provision of key communications infrastructure?			
EC 4 To improve the social and	Will it reduce the impact on the environment from businesses?	+	+	Will attract new investment help maintain existing businesses and employment. Some Co-location of employment and dwellings.
environmental performance of	Will it reduce the impact on residents from businesses?			
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			

ur	ban and rural residents?			
-				
	Conclusions: What are the main effects of the policy ocations for Growth and Change in Technical Consultation Option 3	the NPA	Ē	he sustainability appraisal process?
Environmental Impacts	 Overall beneficial, but may not easily achieve the high q demand from the planned scale of growth. This option would redistribute growth in South Norfolk m opportunities for sustainable travel on the A11 corridor w Norwich. This is a disadvantage in relation to options 1 a manage bus and car traffic. A much reduced focus for significant impacts on European sites. This strategy ove Some improvement to the policy wording needs to be m included as part of the policy give very positive scores, a options, as is the potential impact on local landscapes w benefit to large parts of the existing area. The growth in Long Stratton has the potential to be less to Norwich where most people work. The distance from option 1 to mitigate car journeys and make bus use mor The scale of growth in Long Stratton is a small proportion particularly on the regionally important A140 corridor, in there will be local environmental improvements from a b 	ore than option 2 and which has established and 2. Growth to the ome of the major gro rall also provides for ore explicit, ensuring although the primary where large scale grow sustainable because Norwich for buses all e attractive. n of the overall requi itself this does not si	d, apart fro d good qua north east wth on the significant these pos use of gree wth is bein of the pote ong an uni	om growth at Wymondham, would not use the ality bus infrastructure closer on the approaches would benefit form choice and flexibility about how to A11 corridor in this option may avoid potential for enhancement to habitats and green infrastructure. Sitive aspects are recognised. The combined locations enfield land is a disadvantage in absolute terms for all g promoted. Potential bus rapid transit indicated is a ential to increase travel distances to other centres and mproved A140 corridor give less opportunity than ross the plan area and while locally significant

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.						
Social aspects score very positively, although the main focus will be on new residents in the areas indicated. Will ensure new residen 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.						
Investment require	ed fir the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing.					
Uncertainty over the timing and impact of promoting a further strategic employment site. Impacts 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.						
The long Stratton	Bypass will improve strategic access along the A140 and my give a local boost to Long Stratton. 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.					
n measures rther research llative impacts	Implementation of sustainable transport infrastructure and services will be key, as this is one of the main requiremen growth set out in the regional spatial strategy.					
	 Need to investigate: strengthening consideration of landscape impacts and potential for innovative use of the railway. Environmental Consequences of implementing public transport priority and the scale of enhancements on A140 in the city. 					
1	costly and will imp Social aspects sco good access to jol Requires commun Investment require Uncertainty over t The policy scores key strategic emp The long Stratton					

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Locations for Growth and Change in the NPA Technical Consultation Option 2a (December 2008)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	cts		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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? 	Ν	+/-	+/-	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

					 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. Opportunities for sustainable travel are held back by dispersal of growth requiring investment in A11, A140 (N&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. (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)
ENV 2 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	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). 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.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Ν	-	-	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.
ENV 4 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? 	Ν	+/-	+/-	 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: River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species 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 Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the

				A11; increased visitor pressure
				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. 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.
				reference to habitat creation and environmental excellence.)
ENV 5	Will it protect and enhance the quality of landscapes,			
To maintain and enhance the quality of	townscapes and countryside character, including the character of the Broads and its setting where relevant?	+/-	+/-	Policy contains protection of important local landscapes. However, significant development will change the existing agricultural landscape.
landscapes,	Will it maintain and enhance the distinctiveness of the			
townscapes and the historic	landscapes/townscapes and heritage?			There is potential for significant change to historic towns and landscapes and parts of the City of
environment.	Will it reduce the amount of derelict, underused land?			Norwich. The magnitude and significance of these potential changes will need evaluating using more

archaeological and cultural value?			detailed appraisals for historic landscapes, historic character and conservation areas.
			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. This option is no better or worse than the other three and the appraisal concludes there are mixed effects
			for this option (Consider whether landscape issues should be strengthened in general reference.)
			NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.
 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are 	+/-	+/-	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.
• • • •	energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change?	 energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are 	energy consumption? +/- Will it lead to an increased proportion of energy needs +/- being met from renewable sources? +/- Will it increase the capacity of the area to withstand the effects of climate change? +/- Will it ensure that the risks to lives, land and property are +/-

				 development is positively promoted eg encouraging mixed use development to reduce per capita CO₂ generation. Combined heat and power is also positively promoted. 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. As the option has a more dispersed pattern of growth it will prove more of a challenge to deliver local renewable energy generation.
ENV 7 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?	++	++	All locations avoid flood risk zone 2 and 3 and incorporate sustainable drainage systems. There is no evidence to indicate that this growth
	Will it promote the use of sustainable drainage systems to 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.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	-	-	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 unsuited to the promotion of water minimisation measures.
ENV 9 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? 	+/-	+/-	Minimisation measures. 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
	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?			 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. 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.

				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.
SOCIAL				
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	Will help supply of affordable housing and access to jobs and services. But has a limited impact on areas of concentrated deprivation.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	++	++	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. Health care provision promoted. (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.
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers?	?	?	There is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth in South Norfolk.

SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 		++	++	 Will help maximise affordable housing provision and will deliver large numbers and wide choice of dwellings. 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 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
					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.
SOC 5 To build community identity, improve	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	-	++	++	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

Will it reduce the fear of crime?			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.
Will it reduce unemployment overall? Will it help to improve earnings?	++	++	 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. 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.
Will it improve the quality of dwellings? Will it improve the quality of local open space?	+	+	This policy is not location specific as it applies across the plan area. Promotes high quality design, interactive approach to master planning and wide
\ \	Will it help to improve earnings?	Will it help to improve earnings? ++	Will it help to improve earnings? ++ ++ Will it improve the quality of dwellings? Image: Constraint of the second

	Will it improve the satisfaction of people with their neighbourhoods?			
SOC 8 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? 	?	?	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. 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. 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)
ECONOMIC		 		
EC 1 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?	?	+	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 employment locations.
	Will it promote growth in key sectors?			

[
	Will it increase vitality & viability of town centres and improve economic diversity?			
EC 2 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 GreaterNorwich area?Will it support / encourage rural diversification?	++	++	As above
	Will it support / encourage small city businesses?			
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+	+	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.
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?Will it attract new investment and skilled workers to the area?	+	+	Will attract new investment help maintain existing businesses and employment. Some Co-location of employment and dwellings.

/ill it maintain existing business and employment rovision?		
/ill it provide employment in the best locations to serve rban and rural residents?		

Overa	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) (December 2008)								
•								
Environmental Impacts	Overall beneficial, but may not easily achieve the high quality public transport system necessary to limit CO ₂ 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 options1 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.							
	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.							
	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.							
	Ref to Historic landscape assessment on all 4 options							

Social Impacts Overall beneficial, but some development not accessible to larger centres and services. Dispersed transport infrastructure cost impact on the ability to provide other essential infrastructure and affordable housing. There is no single and obvious solution secondary education need of the more dispersed pattern of growth in South Norfolk. In this respect the option has uncertain e consequences.								
	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.							
		ed for the Long Stratton Bypass will draw funding away from other infrastructure needs and affordable housing. In target level may be dependent on support from the homes and communities agency and what the						
Economic Impacts	Uncertainty over the provision, timing and impact of promoting a further strategic employment site. Although the policy scores very positively. It performs worse than options 1, 2 & 3 in promoting growth that is well-located in relation to, and supports key strategic employment locations and associated sectors.							
	The Long Stratton	Bypass will improve strategic access along the A140 and my give a local boost to Long Stratton.						
Overall summary: Impacts 		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.						
 Possible mitigation Recommended fur Considering cumu 	ther research	 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. Need to investigate: strengthening consideration of landscape impacts and potential for innovative use of the railway. Secondary education solution Environmental Consequences of implementing public transport priority and the scale of enhancements on A140 in the city. 						

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: Locations for growth and change in the Norwich Policy Area Public consultation favoured option (February 2009)

SCORING SYSTEM:

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

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL ENV 1 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? 	Ν	+/-	+/-	The key differences between this and options 1, 2 and 3 that fewer homes required. 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.
					Because of the uncertainty about whether there is a

					critical mass to support bus rapid transit on the A11 corridor, the potential to reduce traffic is less than options 1 and 2. However, the large scale growth locations to the north east are the same as previous options so the potential for viable bus rapid transit is unchanged, and could positive deliver change in travel habits. (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. There is also a need to investigate a more innovative use of the railways)
ENV 2 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	Ν	N	There is no evidence to suggest that any of the growth options will lead to significant effects in terms of this objective. Rather, the Water Cycle Study identifies that, although there is the potential for negative effects associated with growth, these effects can be mitigated. Of particular importance will be phosphate stripping for waste water. Furthermore, potential negative effects can be mitigated through considering the water environment as part of the Green Infrastructure Strategy and through careful design at masterplanning and detailed planning stages. The Water Cycle Study does not suggest that growth in any one location will be more likely to lead to problems in terms of the water environment, and so there is little to allow differentiation between options. However, that said, the scale of development promoted through this option is less than the previous options. Correspondingly, impacts on the water environment may be reduced overall.

ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Ν	-	-	Effects in terms of 'atmospheric pollutants' emitted will be overwhelmingly related to the additional private car use generated by the option (see Env 1). However, in terms of air quality, effects are more localised. For example, heavy traffic might be generated along a major road, but there may be no significant effects in terms of air quality, or, alternatively, significant air quality effects may result from a relatively small amount of extra traffic being generated through a town centre of residential area. It is not possible to identify whether this option, or any other, will have significant effects in terms of air quality at any particular location. However, it is likely that the quantum of development promoted will lead to negative effects. The policy wording promotes a number of measures to reduce traffic congestion (the primary source of poor air quality) including the provision of local
ENV 4 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? 	Ν	+/-	+/-	services and a more general emphasis on a modal shift away from car use. When considering effects in terms of this objective, it is useful to focus on identifying potential significant effects on the European Designated Natura 2000 network of protected sites in particular, as these are the areas of habitat that are of the greatest strategic importance. More information on the potential for impacts on the Natura 2000 network can be found in the Habitats Regulations Assessment (HRA) of the Joint Core Strategy. An initial review of potential impacts on the Natura 2000 network (undertaken as part of the HRA) identifies three areas of concern:

	 River Wensum SAC is sensitive to nutrient enrichment from waste water discharges; increased run-off from roads; potential impacts on individual species 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 Breckland SAC and SPA are sensitive to reduced air quality from more traffic on the A11 	s; npacts ntial e traffic ure and
	It is likely that the location of growth will be a key determinant of the potential for significant impacts on the Breckland SAC and SPA in particular. It is less likely that the location of growth will be a key determinant of the significance of impacts on the River Wensum SAC or Broads SAC. Increased traffic on the A11 resulting from the implementation of the current favoured option is expected to be less than options 1 and 2 and similar to option 3. This is because although the places proposed for major growth along the A11 corridor are similar to technical options, the scale of development in those	key pacts It is key the ed ntation be less This is hajor
	places is less. Impacts on Breckland SAC and SPA with option 2+ may still arise from proposed growth at Wymondham. It is also important to note that the magnitude of impacts associated with this option could be lessened, as compared to other options for growth,	nd SPA growth e of
	(which will mean less traffic, wastewater etc. generated).	omoted

					Finally, it likely that effects can be mitigated through a range of measures, including the full implementation and integration of the Green Infrastructure Strategy and the Norfolk Ecological Network and working towards meeting the Norfolk and Norwich BAP targets. It is helpful that the Policy indicates the importance of protecting, maintaining and enhancing environmental assets and habitats, and recognises the particular features of interest that should be a strategic priority. To implement this sustainability objective, the joint core strategy policy could be strengthened by referring to ways in which the green infrastructure strategy and ecological networks can become integral to growth and development. Habitat creation is part of this. To help deliver longer-term sustainability objectives to protect environmental assets and promote higher standards of environmental protection the joint core strategy could also refer to excellence in standards of environmental performance.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+/-	+/-	+/-	To maintain and enhance The scale of development promoted through this option is less than the quality of landscapes, the level promoted through by the other growth options at the Reg. townscapes and the historic Technical Consultation stage. It is also expected that this option environment. should lead to more efficient use of brownfield land / less greenfield development. As a result, it is thought that the potential for significant effects in terms of this objective are reduced somewhat. However there will still be some impacts, and, as

					 such, the appraisal concludes mixed effects. There is potential for significant change to rural landscapes and towns and landscapes noted for their historic value, including the City of Norwich. However, the magnitude of effects remains somewhat uncertain, and will be better understood once emerging evidence relating to the historic environment is available. It is likely that it will be possible to avoid and mitigate impacts to some degree. In particular, full implementation of the green infrastructure strategy, and masterplanning for large scale growth locations would aim to lead to the creation of distinctive, high quality communities. The policy wording requires revision to refer to design quality, place-making, the importance of local distinctiveness and strategic gaps between towns and villages, and the evidence that led to the current proposed favoured option. NOTE All landscape comments need to be reviewed to consider emerging information on historic heritage.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?	Z	+/-	+	Because traffic accounts for a significant proportion of greenhouse gases, this objective is closely linked to the performance of SA objective ENV1. However, another important element of climate change mitigation is the promotion of renewable energy sources and energy efficiency in the built environment. As this option has a more dispersed

	Will it ensure that the risks to lives, land and property are minimised?				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 is the case for the other options considered as part of the Reg. 25 Technical Consultation. It is noted that resource and energy efficient development is promoted in the Policy wording. For example, the Policy refers to mixed use development, which will be important if car dependency is to be reduced; and also promotes combined heat and power. 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 avoids areas of flood risk, making allowance for future flood events exacerbated by the effects of climate change. While there will be no anticipated change in the current nature of environmental impacts, provided the joint core strategy and transportation interventions are fully implemented, then the nature of impacts is predicted to fall in the medium term, and even further in the long term.
ENV 7 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.

ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Ν	-	-	The effect of growth in greater Norwich will be to exacerbate the pressure on the already stretched water resources of the East of England. However, this option does promote less growth than the other growth options considered as part of the Regulation 25 Technical Consultation. There is no indication from the evidence studies that this option will lead to growth at locations that will lead to particular problems in terms of this objective. Furthermore, whatever the location of growth, it should be possible to mitigate negative effects through implementing water conservation measures. Large scale growth will not be able to take place in the short term as it takes several years to prepare for large scale development. For this reason, short term impacts are predicted to be neutral and negative in the medium to long term (even with water conservation measures).
ENV 9 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? 	+/-	+/-	+/-	The proposed strategic allocation of new homes (and other development) on brownfield land is similar as other options. The urban-focussed growth proposals (Norwich and the urban fringe remain similar across all options. Because the proposed favoured option is for fewer homes overall, this means the <i>proportion</i> of brownfield development would be slightly higher than in other options. The potential for development in the Norwich urban area and on other brownfield land is within the limits of current urban capacity and commitments, whilst also avoiding re-development of urban land that is required for competing uses such as employment, city centre shopping and leisure, and the distinctive

 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? 	green spaces and green links that contribute to the city's distinctiveness. At the time of this sustainability appraisal (2009) even greater use of brownfield land could theoretically be achieved with significant spatial planning compromises to other competing demands for land (above). Other brownfield land could also come forward with greater certainty but only after having first overcome significant constraints (which may require substantial public investment. These
	include the 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, although less for this option. Major growth is predicated on high quality public transport services and a significant shift from people using their cars.
	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.

					[review policy wording regarding resource use, as part of design quality and sustainable place-making objectives and policy]
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively?	N	+	+	Growth should lead to positive effects in terms of this objective as a result of leading to the development of affordable housing and increasing access to jobs and services (although it is noted that this option promotes less growth than the other three options considered as part of the Regulation 25 Technical Consultation). Benefits could be maximised by focusing development in locations where it might stimulate the regeneration of deprived areas. However, it is clear that this option, nor any of the other growth options considered as part of the Regulation 25 Technical Consultation, will lead to targeted regeneration of deprived communities. In the short term there will not have been sufficient development to fund essential community services and facilities, some of which are expected to directly build social cohesion and meeting peoples' needs locally.
SOC 2	Will it improve access to high quality health facilities?				This option, like the other three options considered
To maintain and improve the health of the	Will it encourage healthy lifestyles? How?	N	+	+	as part of the Regulation 25 Technical Consultation, will lead to greenfield developments that should be based on green infrastructure being an integral part
whole population and promote healthy lifestyles.	Will it provide adequate health infrastructure for existing and new communities?				of design from the initial masterplanning stage. The Policy wording promotes the delivery of health
	Will the links between poorer health and deprivation be addressed?				care facilities. However, because this option promotes a more dispersed pattern of growth, there

	Will links to the countryside be maintained and enhanced?				 is a need to clarify whether there are any implications in terms of the number and type of facilities that can be supported. The lead-in time to prepare for growth and the supporting physical and green infrastructure means it will be several years before taking shape and contributing positively to healthy lifestyles. Despite forward funding of initial green infrastructure projects, short term impacts are predicted to be neutral. [Further investigation required into 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]
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	?	?	?	It should be possible to meet secondary school demand in most locations for growth promoted through this option. However, there is no single and obvious solution to meet the secondary education need of the more dispersed pattern of growth promoted in South Norfolk.
SOC 4 To provide the opportunity to live in a decent, suitable and	Will it increase the range of types, sizes and affordability of housing for all social groups?Will it reduce the housing need and ensure that housing provision addresses the needs of all?	+	+	+	The scale of growth promoted should help to meet housing need through delivering a wide choice of dwellings at market prices and also maximising affordable housing provision services. This objective scores positively because there is a high degree of

affordable home.	Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock?				certainty that affordable housing can be met. However, it is noted that this option promotes less growth than the other three options considered as part of the Regulation 25 Technical Consultation. 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. This option performs less well than the other options because it promotes a lower level of growth and therefore would deliver fewer affordable homes.
SOC 5 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? 	+	++	++	In the South Norfolk part of the plan area this option builds less on large-scale new development locations and more on a dispersed pattern of growth based on existing communities. This might offer the opportunity for new development to use (and support) existing community facilities and activities and enhance the facilities for everyone. However, the dispersed pattern of growth in South Norfolk gives rise to uncertainties about arrangements for delivering some community facilities like secondary schools. The policy specifically envisages that all major growth locations will be 'masterplanned' and reference is made to sustainable communities, schools, health etc.
SOC 6 To offer more	Will it reduce unemployment overall?				Most of the locations for growth promoted through this option will be well-related to strategic

opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?	?	+	+	 employment locations and/or well-connected with them and the city centre. However, this option does promote some smaller growth areas, which will have more limited ability to provide local employment opportunities. Long Stratton in particular is less well-related or connected with strategic employment locations. Because of the more dispersed pattern of growth in the South Norfolk part of the plan area it is considered to perform less well than other options. A central feature of the joint core strategy under all options 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.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	In general, promoting new development should lead to the creation of well designed new communities. To support the achievement of this aim, the Policy wording promotes high quality design, an interactive approach to master planning and a wide range of local facilities. However, there is no evidence to suggest that the strategic locations of growth promoted by this option, or any other, will lead to effects in terms of this objective, either positive or negative.
SOC 8 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? 	?	?	?	Much of the growth promoted through this option will be at major growth locations, which are likely to have good access to services, facilities and jobs, either as part of the development, at nearby employment sites, or at nearby higher order centres (which are likely to be accessible by public

	Will it improve access to jobs and services for all?				 transport). Indeed, some of the major growth locations are co-located with strategic employment areas. This option does promote more growth on a smaller scale than the other three growth options considered as part of the Regulation 25 Technical Consultation. Where growth is on a smaller scale, it will be less likely that a wide range of local services and facilities can be supported, particularly higher order services and facilities, such as secondary schools. However, much of the smaller scale growth promoted by this option is focused along the A11, and, as such, it should be possible to access services and facilities in nearby higher order settlements and employment locations via a high quality service. In the case of Long Stratton the bus link is relatively are poor and a challenge to improve. The education solution for this option looks to be more complex and less than ideal, but is currently being investigated (see Soc 3)
ECONOMIC		•			
EC 1 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?	?	?	+	This option may not support economic growth to the same degree as growth options 1 and 2, which had a greater focus on growth in close proximity to strategic employment areas and would be more likely to support the growth of key sectors. However, the benefit of this option is that it does promote growth focuses along on A11 corridor. It is therefore thought that access to strategic important locations will be better under this option than under option 3.

	Will it increase vitality & viability of town centres and improve economic diversity?				Growth in Long Stratton is 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.
EC 2 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? Will it support / encourage small city businesses? 	+	++	++	[further consideration required of impacts under this objective]
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	N	+	+	The grouping of locations along the A11 corridor provides an opportunity to deliver high quality public transport access, albeit not to the scale proposed in the Regulation 25 Technical consultation for options 1 or 2. Under this proposed option growth would be more dispersed making walking and cycling access to services and jobs more difficult. Due to the long lead in time to establish and promote new and expanded employment areas, it is not possible to predict immediate benefits in the short term.
EC 4 To improve the	Will it reduce the impact on the environment from businesses?				Will attract new investment help maintain existing businesses and employment. Some Co-location of

social and environmental performance of the economy.	Will it reduce the impact on residents from businesses? Will it attract new investment and skilled workers to the area?	?	+	+	employment and dwellings. [further investigation of impacts required]
	Will it maintain existing business and employment provision? Will it provide employment in the best locations to serve urban and rural residents?				

Over	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 (February 2009)				
•				
Environmental Impacts	Firstly, it is important to point out that this option promotes a lower scale of growth compared to options previously considered. This decrease in scale is significant enough to reduce the likelihood or magnitude of environmental impacts.			
	Another important characteristic of this option, with environmental implications, is that it may be relatively difficult to achieve the high quality public transport system necessary to limit CO2 emissions and manage travel demand. This option would redistribute growth in South Norfolk more than options 1, 2 and 3, and, compared with options1 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 on the approach to Norwich. However, related to this, a reduced focus on the A11 corridor may avoid potential for significant impacts on European sites.			
	This option does, however, promote growth to the north east, which will benefit from choice and flexibility about how to manage travel demand by bus car and rail.			
	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. However, 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.			

Social Impacts	Overall beneficial, but some development would not be accessible to larger centres and services. There would be some of dispersal of transport infrastructure compared with option 1 and this is likely to be more costly. It will also impact on the ability to provide other essential infrastructure and affordable housing, but less so than options 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. Social aspects score very positively, although the main focus will be on new residents in the areas indicated. The strategy would ensure new residents have good access to jobs and services. The policy maximises ability to provide affordable housing and new services and infrastructure. It also 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.
Economic Impacts	Although the sustainability appraisal of economy policy scores very positively, the appraisal of the option 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. The Long Stratton Bypass will improve strategic access along the A140 and may give a local boost to Long Stratton.

Overall summary:	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 along the A11 corridor maximises their ability to provide high quality public
• Impacts	transport. Uncertainty over the funding of a Long Stratton bypass and its impacts on other infrastructure provision could
Possible mitigation measures	also negatively impact.
Recommended further research	
Considering cumulative impacts	Implementation of sustainable transport infrastructure and services will be important, as this is important to help combat the effects of climate change by reducing CO_2 from transportation, and therefore help to mitigate the negative environmental impacts of growth. This requirement is also emphasised in the regional spatial strategy.
	Need to investigate:
	potential for innovative use of the railway.
	Secondary education solution

Option Appraised: Growth Location - East of Norwich with NDR

++ Very positive			Very negat			v	ive effects +- Mixed effects
N Neutral / insig	nificant effects	?	Uncertain e	effects	Na	a Sustai	inability objective is not applicable to this option
SA Objective	Decision making criteria	l		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					·		
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the floreduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of the Will new development be located such to for people to travel? 	using beople ravel?	modes and the	Na	-	-	Close to Broadland Business Park, but not to a choice of locations. Poor corridor for high quality bus services. No existing local services. Not likely to have good access to rail except in the vicinity of Brundall. Does not provide the best potential for sustainable travel when compared to other locations.
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water env (streams, rivers, lakes etc)? Will it help to support wetland habitats an			Na	Ν	Ν	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.
ENV 3	Will it improve air quality?			Na	-	-	Reasonable public transport options and close to

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				Broadland Business Park and is considered unlikely to worsen local air quality. Will not reduce atmospheric pollutants. Compared to other locations may not be the best at minimising the impacts on the environment arising from motorised transport. Unlikely to have a significant impact on baseline conditions.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? 	Na	+-	+-	All development will increase on emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or worse than others.

	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	Na	+	+	Other policies in the plan will safeguard against development in areas of flood risk. This location has average capacity for SUDS based on infiltration.
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others.
ENV 9 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 	Na			The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required. This location is high quality agricultural land and in that respect is less favoured as a location.

	more recycling and composting? Will it increase waste recovery for other means eg. energy generation?				
SOCIAL				I	
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is not the most accessible and therefore may not contribute to the objectives as much as other locations.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+	+	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services. Broadland Business Park and open countryside are within walking and cycling distance. For this objective the location compares favourably with others.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? 	Na	+	+	Other Plan policies will ensure adequate education infrastructure and learning opportunities are provided. There are no specific factors that make this location significantly different from the alternatives.

	Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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? 	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	+	+	This location is close to Broadland Business Park but other choices are limited. There are opportunities for public transport access to the opportunities in the city, but not as good as some other locations.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.

SOC 8 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? 	Na	+	+	Close to Broadland Business Park, but not to a choice of employment locations. Limited existing local services except Brundall and Blofield with currently a poor corridor for high quality bus services. Not likely to have good rail access except in the vicinity of Brundall. Does not provide the best potential for sustainable travel when compared to other locations.
ECONOMIC		<u>.</u>	·		
EC 1 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? 	Na	+	+	Other policies in the plan seek to strengthen the economy. There are no specific factors that make this location significantly different from the alternatives
EC 2 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? Will it support / encourage small city businesses? 	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives.
EC 3 To encourage efficient patterns of movement in	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling?	Na	+-	+-	Close to Broadland Business Park, but not to a choice of employment locations. Limited existing local services except Brundall and Blofield with currently a poor corridor for high quality bus

support of economic growth.	Will it reduce journey times between key employment areas and key transport interchanges?Will it improve efficiency and sustainability of freight distribution?Will it support provision of key communications infrastructure?				services. Not likely to have good rail access except in the vicinity of Brundall. Does not provide the best potential for sustainable travel when compared to other locations but well located to the NDR and the strategic road network.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	+-	+-	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location has the potential for rail access but has limited bus access to Norwich. On balance this location is average in its performance against this objective.

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

• POLICY OPTION: Growth Location - East of Norwich with NDR

	This location has large areas of good quality agricultural land that would be lost if the site were developed. The location also has the
Environmental	potential rail connection, but offers little opportunity for connection with other key locations in the Norwich Policy Area by walking and cycling.
Impacts	Overall a slight less well performing location.

Social Impacts	The location has the potential to meet the social objectives of the strategy, however, its relative lack of accessibility means that it does not perform as well as some others.					
Economic Impacts	This location is very close to an existing employment site and had good access to the strategic road network and the potential for rail acces					
Overall summary: • Impacts • Possible mitigatio • Recommended fur • Considering cumu	rther research	There are no significant positive or negative features associated large scale growth in this location. On balance it is slightly less accessible by non car modes then some of the alternatives. Overall the assessment is average.				

Option Appraised: Growth location: Long Stratton including bypass

++ Very positive	oositive effects + Positive effects Very negat		ive effects		<u> </u>	ive effects +- Mixed effects	
N Neutral / insig	NNeutral / insignificant effects?Uncertain e			effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the floreduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of the will new development be located such to for people to travel? 	using beople ravel?	modes and the	Na			Growth in Long Stratton is dependant on a bypass being built. The bypass will improve strategic access from the south on the A140 corridor by avoiding the centre of Long Stratton and the current congestion which will benefit the village centre environment. The settlement whilst in the Norwich Policy Area is the most distant from the Norwich and is not well located to strategic employment areas. Although there are local services and jobs so growth in this location is likely to lead to longer travel distances than other locations. The longer travel distances means fast frequent public transport (there is no rail station) is unlikely to be achieved making bus less attractive as a travel mode than can be expected for other growth locations.
ENV 2 To improve the quality of the	Will it improve the quality of the water env (streams, rivers, lakes etc)?	ironm	ent	Na	Ν	Ν	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.

water environment	Will it help to support wetland habitats and species?				
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	+-	+-	A bypass for Long Stratton will improve amenity air quality in the village centre by removing the impacts of through traffic. Will not reduce atmospheric pollutants. Compared to other locations is likely to be a poor performer in minimising the impacts on the environment arising from motorised transport. Unlikely to have a significant impact on baseline conditions across the area covered by the strategy.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location including the bypass, which if properly designed should mitigate its own impacts. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	Na	+-	+-	All development will increase on emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or worse than others.

	Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are				
ENV 7 To avoid, reduce and manage flood risk.	minimised? 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?	Na	N	N	Other policies in the plan will safeguard against development in areas of flood risk. This location has poor capacity for SUDS based on infiltration.
ENV 8 To provide for sustainable use and sources of water supply.	Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others.
ENV 9 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? 	Na	-	-	The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required. This location is has no specific features as compared to the others.

	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?				
SOCIAL SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is not as accessible to Norwich and strategic employment areas as others may not have a significant contribute to the objectives.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+	+	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services. Local services, job opportunities and open countryside are within walking and cycling distance. For this objective the location compares favourably with others.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for 	Na	+	+	Other Plan policies will ensure adequate education infrastructure and learning opportunities are provided. Because of its remoteness from Norwich and strategic employment sites this location will be more restricted in its ability to meet the objectives relating to workforce training than other options.

	existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	?	?	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. The cost of providing a bypass and the education infrastructure could significantly limit the ability to deliver the levels of affordable housing not meeting the targets other policies in the plan set.
SOC 5 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?	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na		-	The location can offer some local employment opportunities but is remote from strategic employment locations including the centre of Norwich. This location scores poorly compared to others.
SOC 7 To improve the quality of where	Will it improve the quality of dwellings? Will it improve the quality of local open space?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.

			1	1	1
people live.	Will it improve the satisfaction of people with their				
	neighbourhoods?				
SOC 8	Will it improve accessibility to key local services and	Na	+	+	Close to local job opportunities, but not to strategic
To improve	facilities (including health, education, leisure, open space,				employment locations. There is a good selection of
accessibility to essential	the countryside and community facilities)?				local services. The existing public transport access to higher order services offered in Norwich and
services, facilities	Will it improve accessibility for all whilst reducing				strategic employment sites is poor and there is
and jobs.	dependency on the private car?				limited scope for improvement. There is no rail
-					access. On balance scores positively, but not a well
	Will it improve access to jobs and services for all?				as some other locations.
ECONOMIC					
EC 1	Will it assist in strengthening the local economy?	Na	+	+	Other policies in the plan seek to strengthen the
To encourage					economy. Will bring some benefit to the village
sustained	Will it improve business development and enhance				centre but because of poor access to strategic
economic growth.	competitiveness?				employment sites this location does on score significantly different from the alternatives.
	Will it reduce vulnerability to economic shocks?				significantly anterent nem the alternatives.
	Will it promote growth in key sectors?				
	Will it increase vitality & viability of town centres and				
	improve economic diversity?				
EC 2	Will it encourage indigenous businesses?	Na	+	+	Other policies in the plan seek to encourage
To encourage	Will it encourage inward investment?				investment. There are no specific factors that make
and accommodate	Will it make land and property available for business?				this location significantly different from the alternatives.
both indigenous	Will it improve economic performance across the Greater				alternatives.
and inward	Norwich area?				
investment.					
	Will it support / encourage rural diversification?				
	Will it support / encourage small city businesses?				
EC 3	Will it improve provision of local jobs?	Na	-	-	Close to local job opportunities, but not to strategic

To encourage efficient patterns of movement in support of economic growth.	 Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 				employment locations. The existing public transport access to Norwich and strategic employment sites is poor and there is limited scope for improvement. There is no rail access. The bypass will assist strategic access along the A140 corridor, but many constraints still exist on the route.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	+-	+-	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location is on the A140 corridor but has no potential for rail access. There are local job opportunities that can be built on which will provide for the settlement and surrounding rural areas. Access to strategic employment sites is poor. On balance this location is average in its performance against this objective.

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?							
POLICY OPTI	ON: Growth L	ocation – Long Stratton including bypass					
Environmental Impacts The provision of a bypass allied to growth in Long Stratton would improve conditions for existing residents. Increased local traffic from new homes and jobs, distance to Norwich and poor prospects for sustainable travel to Norwich score against the location and is an average performer compared to the other options.							
Social Impacts	Long Stratton has a good range of existing local services that would be strengthened by growth. The development is unlikely to be able to self fund the target number of affordable homes and/or contribute to the necessary infrastructure because of the cost of the bypass. Performs poorly compared to other locations. There will be some local and wider benefits from the improvements to the A140.						
Economic Impacts		t well related to strategic employment locations. Significant growth might stimulate local employment growth but it would kisting sector concentrations.					
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		Growth can build on local jobs and services and strengthen the village's economy. A bypass brings local and strategic benefits on the A140 corridor; however it may come at the price of not providing target levels of affordable housing. Long Stratton is the most distant growth location from Norwich and is poorly related to strategic employment opportunities. There is limited ability to deliver fast, frequent high quality public transport connections to key destinations in the Norwich Policy Area. Overall Long Stratton is a location that scores averagely.					

Option Appraised: NE (inside and outside NDR) with NDR

++ Very positive							ive effects +- Mixed effects
N Neutral / insig	I Neutral / insignificant effects ? Uncertain e			effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria	l		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the floreduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on environment? Will it encourage more benign modes of the transmission of the propose of the travel of the travel? 	using beople ravel?	modes and the	Na	+	+	The location spans between the employment sites at the airport, Broadland Business Park and Rackheath. Local services exist within the existing Norwich fringes that are within walking ands cycling distance. There are good opportunities to develop fast frequent bus routes into the city. There is the potential for rail but it may require moving the existing Salhouse station. Layout of the area has to ensure permeability across the Northern Distributor Route to prevent severance of the new community. The NDR will enhance the environment in the Northern suburbs of Norwich and relieves congestion providing the potential for high quality bus services. The NDR will significantly improve access to the strategic road network for the airport and adjacent employment areas.
ENV 2 To improve the	Will it improve the quality of the water env (streams, rivers, lakes etc)?	vironmo	ent	Na	Ν	N	The location has no specific strategic impacts on the water environment. Impacts of the location are

quality of the water environment	Will it help to support wetland habitats and species?				likely to arise from detailed design and siting.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	+-	+-	Good public transport options and close to services and employment opportunities. It is considered unlikely to worsen local air quality. Will not reduce atmospheric pollutants. Compared to other locations has the potential to be one of the best for minimising the impacts on the environment arising from motorised transport. Unlikely to have a significant impact on baseline conditions.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location including the NDR, which if properly designed should mitigate its own impacts. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites.
ENV 6 To adapt to and mitigate against the impacts of	Will it lead to an increased proportion of energy needs	Na	+-	+-	All development will increase on emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or

climate change.	being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised?				worse than others.
ENV 7 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?	Na	+	+	Other policies in the plan will safeguard against development in areas of flood risk. This location has good capacity for SUDS based on infiltration.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others.
ENV 9 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? 	Na	-	-	The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required. This location is has no specific features as compared to the others.

	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?				
SOCIAL		1			
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is more accessible to Norwich and strategic employment areas. Compared to other locations it i scores well against the objectives.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+	+	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services. Local services, job opportunities and open countryside are within walking and cycling distance. For this objective the location compares favourably with others.
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers?	Na	+	+	Other Plan policies will ensure adequate education infrastructure and learning opportunities are provided. Because of its proximity to Norwich and strategic employment sites this location scores highly in its ability to meet the objectives relating to workforce training as compared to the other options.

	Will adequate education infrastructure be provided for existing and new communities?Will it promote lifelong learning and skills training?Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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? 	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	++	++	This location spans between the employment sites at the airport, Broadland Business Park and Rackheath providing a good range of opportunities. There are good prospects of developing fast frequent bus routes into the city. There is the potential for rail but it may require moving the existing Salhouse station. Overall one of the best performing options for this objective.

SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+	+	The location spans between the employment sites at the airport, Broadland Business Park and Rackheath. Local services exist within the existing Norwich fringes that are within walking ands cycling distance. There are good opportunities to develop fast frequent bus routes into the city. There is the potential for rail but it may require moving the existing Salhouse station. Layout of the area has to ensure permeability across the Northern Distributor Route to prevent severance of the new community and ensure good access to services and facilities for all.
ECONOMIC					
EC 1 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? 	Na	+	+	Other policies in the plan seek to strengthen the economy. There are no specific factors that make this location significantly different from the alternatives. The area is close to a local employment area at Rackheath as well as to other locations in the outer part of the urban area.
EC 2 To encourage and accommodate	Will it encourage indigenous businesses? Will it encourage inward investment? Will it make land and property available for business?	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives.

both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area? Will it support / encourage rural diversification? Will it support / encourage small city businesses?	Na			The leastion around between the employment sites
To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	INA	+	+	The location spans between the employment sites at the airport, Broadland Business Park and Rackheath. Local services exist within the existing Norwich fringes that are within walking and cycling distance. There are good opportunities to develop fast frequent bus routes into the city. There is the potential for rail but it may require moving the existing Salhouse station. Layout of the area has to ensure permeability across the Northern Distributor Route to prevent severance of the new community. The NDR will enhance the environment in the Northern suburbs of Norwich and relieves congestion providing the potential for high quality bus services. The NDR will significantly improve access to the strategic road network for the airport and adjacent employment areas.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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 	Na	+	+	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location would be served directly by the NDR and has potential for rail access. There are strategic employment sites either close by or easily accessible by public transport. This location is above average compared to the other options in its performance against this objective.

ur	ban and rural resider	its?					
		t are the main effects of the policy option as identific ocation - NE (inside and outside					
Environmental Impacts							
Social Impacts		Again the proximity to jobs and services means that the location is scores well against social objectives. Permeability across the NDR is important not to isolate people from jobs and services within the growth location.					
Economic Impacts	With strong links to existing strategic employment sites and via the NDR good access to the strategic road network, this location scores highly against the economic objectives.						
Overall summary: Impacts Possible mitigatio Recommended fur Considering cumu	rther research		stainability assessment when compared to others. Masterplanning of s not form a barrier to sustainable travel links and that the proximity to on of a good walking and cycling network.				

Option Appraised: NE (outside NDR) with NDR

++ Very positive	effects + Positive effects		Very negat	ive effects			ive effects +- Mixed effects	
N Neutral / insig	NNeutral / insignificant effects?Uncertain e			effects Na Sustainability objective is not applicable to this option				
SA Objective	Decision making criteria	3		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects	
ENVIRONMENTAL ENV 1 To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flo reduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on environment? Will it encourage more benign modes of the Will new development be located such to for people to travel?	using people ravel?	modes and the	Na	-	-	The location is relatively close to the employment sites at the airport, Broadland Business Park and Rackheath and local services within the existing Norwich fringes. However as a stand alone location it would be more challenging to deliver the walking and cycling infrastructure to provide safe convenient access. The location is remote from the built up area and opportunities to develop fast frequent bus routes into the city will rely on permeability of the NDR . There is the potential for rail but it may require moving the existing Salhouse station. The NDR will significantly improve access to the strategic road network for the airport and adjacent employment areas.	
ENV 2 To improve the quality of the water	Will it improve the quality of the water en (streams, rivers, lakes etc)? Will it help to support wetland habitats an			Na	Ν	N	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.	

environment					
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	-	-	There are reasonable options for developing public transport and is considered unlikely to worsen local air quality. Will not reduce atmospheric pollutants. Compared to other locations may not be the best at minimising the impacts on the environment arising from motorised transport. Unlikely to have a significant impact on baseline conditions.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location including the NDR, which if properly designed should mitigate its own impacts. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the	Na	+-	+-	All development will increase on emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or worse than others.

	effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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	Na	+	+	Other policies in the plan will safeguard against development in areas of flood risk. This location has good capacity for SUDS based on infiltration.
	reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others.
ENV 9 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? 	Na	-	-	The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required. This location is has no specific features as compared to the others

	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?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is not the most accessible and therefore may not contribute to the objectives as much as other locations.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	++	++	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services. Local services, job opportunities and open countryside are within walking and cycling distance. For this objective the location compares favourably with others.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? 	Na	+	+	Other Plan policies will ensure adequate education infrastructure and learning opportunities are provided. There are no significant features good or bad that stand out of this location compared to others.

	Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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? 	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	+	+	The location is relatively close to the employment sites at the airport, Broadland Business Park and Rackheath. However as a stand alone location it would be more challenging to deliver the walking and cycling infrastructure to provide safe convenient access. The location is remote from the built up area and opportunities to develop fast frequent bus routes into the city will rely on permeability of the NDR. There is the potential for rail but it may require moving the existing Salhouse station. The NDR will significantly improve access to the strategic road network for the airport and adjacent

					employment areas.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	-	-	The location is relatively close to the employment sites at the airport, Broadland Business Park and Rackheath and local services within the existing Norwich fringes. However as a stand alone location it would be more challenging to deliver the walking and cycling infrastructure to provide safe convenient access. The location is remote from the built up area and opportunities to develop fast frequent bus routes into the city will rely on permeability of the NDR. There is the potential for rail but it may require moving the existing Salhouse station. The NDR will significantly improve access to the strategic road network for the airport and adjacent employment areas.
ECONOMIC		I		I	
EC 1 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? 	Na	+	+	Other policies in the plan seek to strengthen the economy. There are no specific factors that make this location significantly different from the alternatives. The northeast outside the NPR is close to a local employment area at Rackheath, as well as being reasonably close to Broadland Business Park and other employment locations in the northeast part of the urban area.

EC 2 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? Will it support / encourage small city businesses? 	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	+/-	+/-	Limited access to strategic employment locations (but does have Rackheath employment). Reasonable prospect for public transport (same as NE inside but longer journey). Poor existing local services. There may be potential for rail use, based on Salhouse station, or a relocated station. In terms of local access, The NDR we'll need to incorporate appropriate crossings to integrate this location with the urban area, and the area inside the NDR, if selected for growth.
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? Will it attract new investment and skilled workers to the area? Will it maintain existing business and employment provision?	Na	+/-	+/-	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location would be served directly by the NDR and has potential for rail access. It is, however, relatively remote from other employment locations.

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: NE (outside NDR) with NDR

Environmental Impacts	Not particularly well related to services and choice of strategic employment locations to encourage sustainable transport. But could provide rail option. The area does not include significant known environmental constraints. Development may offer opportunities for environmental enhancement.				
Social Impacts	Currently limited choice of work and local services. Development could enhance these, but major growth here would be relatively remote from the wider range of services to be found within the urban area. The NDR could provide good road access to the area, but if the adjacent area inside the NDR is also selected for development could form a barrier for local journeys to work and to access facilities by non car modes, unless attention is paid to providing suitable crossings for "benign modes".				
Economic Impacts	The area is close to an established local employment area at Rackheath, but not as close as some others to the wider range of employment opportunities within the Norwich urban area. Access to the area is very dependent on the NDR				
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		This location is some way from the urban area, and high quality sustainable public transport would be a key requirement. This might involve using the potential of the nearby rail line, but would also necessitates high quality bus access to other parts of the urban area. Conversely, in terms of wider access, the NDR is critical. In terms of access to services, and the creation of high quality public transport links to the Norwich of an area, this location may work best if combined with NE "inside the NDR" location, and at a scale sufficient to provide services. This would necessitate careful planning of links across the NDR to ensure acceptable local journeys to work and services.			

Option Appraised: Growth location – North (with NDR)

++ Very positive	effects +	Positive effects		Very negat	ive effects	-	Negat	ive effects	+-	Mixed effects
N Neutral / insig	nificant effects		?	Uncertain e	effects	Na	a Sustai	nability objective is	not ap	oplicable to this option
SA Objective	Decision making criteria				Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs			s / Justification ulative effects
ENVIRONMENTAL										
ENV 1 To reduce the effect of traffic on the environment.	reduce congestio Will it increase th other than the ca Will it reduce the environment? Will it encourage	e proportion of journeys r? effect of HGV traffic on p more benign modes of to ment be located such to	using beople ravel?	modes and the	Na	-	-	of existing service bus and cycle opt ride site, although this sector suffers These and maybe be taken As part of Conditions on the urban area are ve air quality, and the development Is like this location is like NDR being in place the location is out	es but ions. I the rc from a impro- of the I A140 ry poo e impa- cely to b ce before side th	bice of strategic employment near airport employment and t is near the Airport park and bute into the city centre from fragmented bus priorities. by traffic measures to North City Centre Plan. in the northern part of the or in terms of congestion and loct of major additional be unacceptable. Therefore be entirely dependent on the ore development could start the NDR and this would need t in detailed junction design.
ENV 2 To improve the quality of the water	(streams, rivers,	e quality of the water env lakes etc)? port wetland habitats and			Na	Ν	N	The location has r water environmen	no spe it. Imp	cific strategic impacts on the pacts of the location are led design and siting.

environment					
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	-	-	Air quality is already an issue at the junction of the A140 and the outer ring road. This location is highly dependent on the opening of the NDR which should have a positive effect on the air quality in the locality. If the stock priority measures serving this park and ride corridor can be improved, it would also benefit services from this location.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location including the NDR, which if properly designed should mitigate its own impacts. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy. West of the A140, there are a number of locally designated sites and a scheduled ancient monument. There are fewer constraints east of the A140.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			There is a scheduled ancient monument at Horsford Castle, and some local a designated wildlife sites to the west of the A140, and an area of historic park land to the west of Spixworth. Elsewhere, there are no national designations, although there are small areas of local landscape value northwest of Spixworth. There is a Conservation Area at Horsham St Faith which would need to be taken into account and appropriately protected. The area is a relatively close to Norwich international Airport, and care would need to be taken not to infringe public safety zones and to avoid the effect of aircraft noise, though this should be achievable through careful design. Overall, the area does not Perform particularly well in this respect.

ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	Na	+-	+-	All development will impact on emissions. All locations have possibilities for renewable energy/energy efficiency. There is no reason to believe this location would perform any better or worse than other locations in principle, though it is a relatively close to the range of employment opportunities in the urban area and close to a proposed strategic employment location at Norwich International Airport. Locations in close proximity to the Airport may be inherently less suitable for wind power because of potential effects on navigational equipment. It does not therefore perform particularly well in this respect.
ENV 7 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?	Na	+	+	Relatively little of this area is unknown to be at risk from fluvial flooding. in terms of SUDS, groaned conditions of buried with the best conditions being to the west of the A140. two of the east, soils are generally poor or average in terms of infiltration capacity.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	All localities should be capable of being served by SUDS, though as noted above, careful design maybe necessary. Water supply should pose no particular difficulty
ENV 9 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 	Na			All major growth options outside the city are likely to involve significant Greenfield development, but this area is not of a particularly high agricultural quality. It does however include one of the largest proposed mineral allocations in the Norwich policy area in the minerals and waste draft development plan document. it therefore performs relatively poorly in this respect

	 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? 				
SOCIAL SOC 1	Will it reduce poverty and social exclusion in those areas	Na	+	+	Other policies will aim to create sustainable,
To reduce	most affected?	ina	'	I	inclusive communities. As this location is removed
poverty and					from the more deprived areas in the plan area, it is
social exclusion.	Will it help to reduce deprivation levels?				unlikely to have a significant impact
	Will it help meet the needs of residents most effectively?				
SOC 2	Will it improve access to high quality health facilities?	Na	+	+	Other Plan policies will ensure health facilities are
To maintain and	Will it an active method they life at date 2.1 Januar				provided and access to the countryside. This
improve the health of the	Will it encourage healthy lifestyles? How?				location could deliver the health infrastructure and other services All development will be planned to
whole population	Will it provide adequate health infrastructure for existing				provide health facilities and "countryside" access
and promote	and new communities?				(accessibility ENV1 will be critical). However only
healthy lifestyles.					large scale development will be able to provide a
	Will the links between poorer health and deprivation be addressed?				good range of facilities. The Norfolk joint strategic
	auuresseu?				needs assessment published in 2008 suggests that this location has some localised existing problems of
	Will links to the countryside be maintained and enhanced?				access to health facilities. new development might
	· · · · · · · · · · · · · · · · · · ·				help to overcome these, and could therefore offer
					some benefit. large scale development would

					therefore perform reasonably well against this criterion, but smaller scale development would not.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and 	Na	+	+	The area is not particularly close to existing high schools, the nearest of which have no spare capacity. This location has relatively few existing facilities and in common with other facilities, adequate educational opportunities may depend on development on a sufficiently large scale to support new facilities. Again, while a large scale development might perform well against this criterion, smaller scale development would not.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	deprivation be addressed?Will it increase the range of types, sizes and affordability of housing for all social groups?Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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? 	Na	+	+	The existing communities in this locality generally have a limited range of facilities. Therefore an adequate range of facilities is likely to be achievable only with a large scale development, though this would offer a wider range of social activities to existing residents.
SOC 6	Will it reduce unemployment overall?	Na	+-	+	Potentially close to airport. This may offer a range of

To offer more opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?				employment opportunities. Furthermore, the Airport is identified in the East of England Plan as a strategic employment location. The range of jobs in this part of the built-up area is therefore likely to grow.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+/-	+/-	This location is not well related to a choice of strategic employment sites or existing services but near airport employment and bus and cycle options. Other local services are limited and improvement of the range and accessibility of services is likely to be achievable only if large scale development is contemplated.
ECONOMIC					
EC 1 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? 	Na	+	+	This location is near to the Airport which is an important gateway to the greater Norwich area, and close to the associated and proposed employment. There is also a successful, but small, employment site at Horsham St Faith. It is however some way from Broadland Business Park, Norwich Research Park, and the A11 corridor. The location performs fairly well in terms of Airport related activities but not better than others in terms of access to a wide choice of employment.
EC 2 To encourage	Will it encourage invariant investment?	Na	+	+	Major growth in the north is likely to be well related to the growing employment potential at the Airport,

and accommodate both indigenous and 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? Will it support / encourage small city businesses? 				and to the Airport itself as a gateway for the wider Norwich area. As the Airport is identified as a strategic employment location, irrespective of the choice of new development locations, the beneficial effects on the economy of gateway employment development are independent of the choice of residential location in this area.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	+/-	+/-	The area is close to the Airport and the new employment allocation proposed there in the East of England Plan. It has reasonable access to the city centre but is not particularly close to other strategic employment locations. In terms of wider communication it is highly dependent on the NDR.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	?	?	And the location is close to the proposed strategic employment site at Norwich international Airport, and, given its strategic support, the employment growth is likely to arise anyway. Thus it may be more difficult to achieve significant mixed use within a major housing led development. It is therefore difficult to assess the impact of choosing this location for housing growth on the environmental impact of business.

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?							
POLICY OPTI	on: North (wi	th NDR)					
Environmental Impacts		or sustainable access to jobs and services. While it would improve with further employment development at the airport, e limited choice. Development near the Airport would need to take account of its effects, though this should be achievable anning.					
Social Impacts	Impacts Not well related to existing services. The provision of adequate services is likely to be achievable only with major development. This might then offer some benefit to existing residents in terms of a wider range of facilities on their doorstep.						
Economic Impacts	likely to proceed in	ort development at the airport, though this is identified in the east of England plan as a strategic employment location and is respective of whether this is selected as a major growth location. If development precluded the exploitation of minerals in vould be an economic cost to the selection of this location.					
Overall summary: • Impacts • Possible mitigatio • Recommended fu • Considering cumu	rther research	While has some benefit in relation to proximity to the airport it is not particularly will located for sustainable travel. Development would need to be of sufficient scale to provide a range of services. Development in this area would be entirely dependent on the NDR, and in terms of traffic and its effect on air quality would raise serious concerns without the NDR.					

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Option Appraised: NE inside NDR

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effects	S		?	Uncertain effects	Na	Sustainability objective is	not ap	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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? 	Na	+	+	The location is relatively close to Broadland business park, and to the major employment area at Salhouse Road. It is also, for a fringe location, relatively close to the employment and other facilities to be found in the city centre. There is a choice of radial connections to the city centre, offerings at the prospect of a good public transport link.Although large scale development would be expected to support a wide range of facilities, there is already a reasonable range at Sprowston and Thorpe St Andrew. In general the location performs well against this criterion
ENV 2 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?	Na	N	Ν	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.
ENV 3	Will it improve air quality?	Na	-	-	Excellent prospects for public transport, walking and

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				cycling.therefore although additional traffic is likely to result in additional emissions, there are no current known air quality problems and this location should perform relatively well in this respect given its proximity to employment and facilities, and the potential for creating good public transport corridors
ENV 4 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? 	Na	-	-	While this is a detailed design and siting issue, there are a number of local environmental designations in the area including three historic parklands, county wildlife sites and ancient Woodland. These will need to be incorporated into any development carefully to retain their quality, and the continuity of green links through careful application of the green infrastructure strategy. This should be achievable, but it needs to be recognized that there are particular challenges in this locality.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. Aim is to mitigate by good design and to avoid the most sensitive sites. While this is a detailed design and siting issue, there are a number of local environmental designations in the area including three historic parklands, some local landscape designations, county wildlife sites and ancient Woodland. These will need to be incorporated into any development carefully to retain their quality, and the continuity of green links through careful application of the green infrastructure strategy. This should be achievable, but it needs to be recognized that there are particular challenges in this locality.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	Na	+-	+-	All development will impact on emissions. All locations have possibilities for renewable energy/energy efficiency to occur. However, the area offers the potential for good public transport links if the choice of radial routes into the city centre

	Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised?				can be used to create effective priorities. The area is also a decent to a railway line, but its value to this location remains uncertain
ENV 7 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?	Na	+	+	Little of the area is known to be at risk of fluvial flooding. In general the geological conditions suggest that SUDS based on infiltration should be successful here. In this respect the area performers are relatively well
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others
ENV 9 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? 	Na	-	-	The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required. Parts of the northeast fringe Include small areas of good quality agricultural land.

	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?				
SOCIAL SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively? Will it improve access to high guality health (acilities)	Na	+	+	The area does not include the most deprived parts of the plan area, and will therefore make little difference in this respect. [check with the City Council colleagues that heartsease does not fall into this category]
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	++	++	All development will be planned to provide health facilities and "countryside" access (accessibility ENV1 will be critical). However only large scale development will be able to provide a good range of facilities. The northeast fringe has a relatively good range of local facilities And, many of which would be within walking on cycling distance of large parts of this location. There are extensive areas of Woodland and historic parkland which, subject to appropriate planning, could offer access to semi – natural green space. Therefore although this area is not near to hospitals in the urban area it nevertheless performs a reasonably well against this criterion.
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce?Will it help to retain key workers and provide more skilled workers from school leavers?	Na	+	+	Aim is for development of a scale to provide new secondary schools or to be located where there is existing capacity) The location is not close to higher or further education, but enjoys reasonable access to those

	Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				facilities in the city centre. The aim is for development of a scale to provide a new secondary school. The existing schools in the area do offer sixth form education. The location and therefore performs fairly well.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	The expectation is that all new major growth locations should be able to provide the target level of affordable housing. There are no known abnormal costs relating to this area likely to prevent that objective being achieved.
SOC 5 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?	Na	++	++	Other policies in the plan seek to achieve sustainable communities. this location has good access to the existing range of facilities in Sprowston and Thorpe St Andrew. If This location and the north east outside the NDR were both chosen, there may be some shared facilities and particular attention would need to be paid to appropriate links across the NDR.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all. SOC 7	Will it reduce unemployment overall? Will it help to improve earnings? Will it improve the quality of dwellings?	Na	+	+	This location is close to Broadland Business Park, and fairly close to employment opportunities at the airport and city centre, and also those at the local employment areas at Rackheath and Salhouse Road. Overall, it should be possible to access a range of employment opportunities for all residents, without the need for a car. Other policies in the plan seek to secure safe and

To improve the quality of where people live.	Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?				sustainable communities.
SOC 8 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? 	Na	+	+	The area should provide for easy access to a choice of employment opportunities without the need for a car. there are a number of existing facilities in the locality including schools offering sixth form education which should supplement those provided in any new development. the area is a relatively remote from hospitals, but should offer the potential for attractive green spaces to be included. it there for schools well against this criterion
ECONOMIC EC 1	Will it assist in strengthening the local economy?	Na	+	+	Other policies in the planned seek to promote the
To encourage sustained economic growth.	 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? 				economy. a secondary factor is the proximity of major new growth areas. This location is close to, and offers potentially good access to a wide range of employment opportunities. the location therefore scores well in this respect.
EC 2 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? 	Na	Ν	N	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives.

	Will it support / encourage small city businesses?				
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	+	+	This location offers potentially good access to a wide range of java paternity is, and therefore scores slightly better than some others in this respect
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	+	+	The impact of strategic employment development in the plan will only be marginally affected by the choice of major growth locations. However because this is relatively close to a range of such sites it performs marginally better than some other locations.

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

• POLICY OPTION: NE inside NDR

Environmental Impacts	The location provides good opportunities to minimise the impact of transport on the environment. There are a number of environmental assets, notably local landscape designations, ancient woodlands and historic parklands. With suitable planning, these could however be incorporated into and enhance major growth in this area						
Social Impacts	npacts The location is well located to provide a choice of easily accessible services and work options. if developed in combination with the northeast outside the NDR, it will be important to ensure safe and easy crossing of the route to enable people to access facilities.						
Economic Impacts	conomic Impacts Good location in relation to strategic employment opportunities will have a slightly a beneficial effect on the economy.						
Overall summary: • Impacts • Possible mitigatio • Recommended fur • Considering cumu	rther research	Scale of development would need to be large enough to provide for a wide range of services Emphasis on sustainable transport is key Some existing local services Need to investigate innovative use of railway More analysis needs to be undertaken on landscape impact. Overall the area performs well. There are some environmental assets which would need protection, but the location is likely to have good access to a reasonable range of social and economic opportunities including some existing ones. The presence of the NDR and the possibility of development on both sides of it with access across the road needed by residents will need careful planning.					

Option Appraised: Growth locations – **North West (with NDR)**

++ Very positive	effects	+	Positive effects		Very negat	ive effects		-	Negat	ive effects	+-	Mixed effects
N Neutral / insignificant effects ? Uncert				Uncertain e	effects		Na	Sustai	nability objective is	not ap	oplicable to this option	
	1					•						
SA Objective			Decision making criteria	1		Short-	Med	liu	Long-	Con	nment	ts / Justification
						Term	m		Term	Inc	. cum	ulative effects
						0-5 yrs	Terr	m	20+ yrs			
							5-2	0				
							yrs	5				
ENVIRONMENTAL												
ENV 1	Will it reduc	ce traff	ic volumes, ease the flo	w of tr	affic and	Na	-		-	The location is no	t well	located to a choice of
To reduce the effect of traffic on	reduce con	gestio	n?									r existing services but is near park and ride site. The
the environment.	Will it increated other than the second seco		e proportion of journeys ?	using	modes							the strategic access t is unlikely to be a location

effect of traffic on the environment.	 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? 				airport employment and park and ride site. The location will benefit from the strategic access afforded by the NDR but is unlikely to be a location gives the best opportunities and potential for public transport improvement to encourage non car travel.
ENV 2 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?	Na	N	N	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.
ENV 3	Will it improve air quality?	Na	-	-	Reasonable public transport access and is close to

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				The airport and its associated employment areas and is considered unlikely to worsen local air quality. Air quality is an issue at the junction of the A140 and the outer ring road but the NDR will provide opportunities to address the existing problems. Will not reduce atmospheric pollutants. Compared to other locations may not be the best at minimising the impacts on the environment arising from motorised transport. Unlikely to have a significant impact on baseline conditions.
ENV 4 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? 	Na	+-	+-	There are no significant strategic impacts associated with this location including the NDR, which if properly designed should mitigate its own impacts. Local impacts can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources?	Na	+-	+-	All development will increase on emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or worse than others.

	Will it increase the capacity of the area to withstand the effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	Na	+	+	Other policies in the plan will safeguard against development in areas of flood risk. This location has good capacity for SUDS based on infiltration.
	Will it promote the use of sustainable drainage systems to reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	Growth promoted by the strategy will increase the demand for water supply. This location does not have a significantly different impact to others.
ENV 9 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? 	Na	-	-	The Strategy will require significant areas of Greenfield Land to be built on and the choice of growth locations does not change the scale of land required.

SOCIAL	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?				
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location has average accessibility to essential services as compared to other sites.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+	+	Other Plan policies will ensure health facilities are provided and access to the countryside. This location would need to rely on existing health infrastructure and other services as growth is constrained by high school capacity and p Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services. Broadland Business Park and open countryside are within walking and cycling distance. For this objective the location compares favourably with others. potential for expansion. Open countryside is within walking and cycling distance. For this objective the location achieves an average score when compared with others.
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled	Na	+-	+-	The scale of growth in this location would be limited by capacity in existing secondary schools that have little or no capacity for expansion. It is unlikely that growth in this location would enhance education

	 workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 				provision and is a poorer performing location.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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? 	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	+-	+	This location is close to Norwich International Airport and the adjacent employment areas but other choices are limited. There are opportunities for public transport access to employment opportunities in the city, but not as good as some other locations.

SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	Ν	N	This location is close to Norwich International Airport and the adjacent employment areas. Limited existing local services in Drayton with currently a poor corridor for high quality bus services. Does not provide the best potential for sustainable travel when compared to other locations.
ECONOMIC		•			
EC 1 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? 	Na	+	+	Other policies in the plan seek to strengthen the economy. There are no specific factors that make this location significantly different from the alternatives.
EC 2 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? 	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives.

	Will it support / encourage small city businesses?				
EC 3 To encourage efficient patterns of movement in support of economic growth.	Will it support? encourage small city businesses? Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?	Na	+-	+-	Close to airport and adjacent employment areas, but not to a choice of strategic employment locations. Limited existing local services except in Drayton with currently a poor corridor for high quality bus services. Does not provide the best potential for sustainable travel when compared to other locations but well located to the NDR which provides access to strategic road network. Large scale employment growth could pressure routes across that Wensum valley to access the A47.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	Na	+-	+-	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location has limited bus access to Norwich. On balance this location is average in its performance against this objective compared to others.

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

• POLICY OPTION: North West (With NDR)

Environmental Impacts	The location suffers from a poor rote to the city centre for public transport although linking across to the A140 corridor will improve opportunities. There are limited local services and many key destinations area outside the range of walking and cycling. Because growth is limited it is unlikely that growth in this location will deliver many additional local; services. Although the NDR gives access to the strategic road network, the shorter route is across the Wensum Valley and significant growth would pressure the sensitive cross valley road network. Overall a less well performing location than others.					
Social Impacts	The scale of growth is likely to be limited b local secondary school capacity and as a consequence the local educational facilities and other key services are unlikely to be significantly improved. The scale of growth limits that ability to achieve the objectives and is one of the poorer performing growth locations.					
Economic Impacts	The location is in close proximity to the airport and its employment areas and provides access to job opportunities. The existing bus links to the city centre are not ideal					
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		Overall this is one of the poorer performing locations, unable to deliver the scale of growth to deliver significant improvements in social infrastructure or support high quality public transport. Aside from the Airport and its employment area other key job opportunities and services are relatively remote and public transport access could be difficult to provide. Significant growth would overcome local infrastructure issues and deliver a new secondary school but would pressure the environmentally sensitive Wensum Valley				

Option Appraised: Growth Location South

++ Very positive		Very negat				ve effects +- Mixed effects
N Neutral / insig	NNeutral / insignificant effects?Uncertain		effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAI						
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of the Will new development be located such to for people to travel? 	using modes beople and the ravel?	Na	-	_	The area is not well located in relation to existing strategic employment locations, and good access to such opportunities would be dependent on significant employment activity being included within the new growth, or new opportunities being created at an accessible location nearby. Even then, the choice of employment opportunities accessible without reliance on the car would be limited.Public transport links to the Norwich of an area would necessitate considerable in new priorities along an existing class1 road including river and rail bridges. Priorities at the point close to the city centre where the A11 and A140 meet would create environmental challenges Routing public transport via existing park and ride site might help overcome some of these issues.

					growth location would need to be carefully planned to avoid intrusion of H. G. V's
ENV 2 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?	Na	N	N	The area has no known specific considerations are relating to the quality of the water environment. any local impacts would be a detailed design and siting issue
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	-	-	The area is a poorly related to jobs and services but reasonably close to Norwich. Cycling priorities towards the city could exploit the B.1113 to avoid the southern the bypass crossing. In other respects there is a little to distinguish this location from others in terms of air quality or overall environmental amenity.
ENV 4 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? 	Na	+-	+-	There are no national or international designations in this area. There are some areas of local interest principally to the west of the B. 1113
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The aim of the strategy is to mitigate by good design and to avoid the most sensitive sites. There is a designated Conservation Area and some local a protected green areas at Mulbarton
ENV 6 To adapt to and	Will it reduce emissions of greenhouse gases by reducing energy consumption?	Na	+-	+-	All development will impact on emissions. All locations have possibilities for renewable

mitigate against the impacts of climate change.	Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?				energy/energy efficiency. There is no reason to Believe this area will perform any better or worse than any other in this respect. Public transport priorities will present some challenges.
ENV 7 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?	Na	+	+	There are no parts of this location between the A. 140 and the B. 1113 of known to be at risk of fluvial flooding. There are smaller more localized areas to the west of the B. 1113 where flood-risk would need to be taken into account. From the point of view of surface water drainage, the infiltration potential of the underlying soils is generally good in the eastern part of the area but more difficult in the western part.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	The location does not have a significantly different impact to others.
ENV 9 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 	Na			This area contains known mineral deposits, particularly in the area just to the west of the A 140. Selection of this area for development would involve either delaying the development until late in the plan, commencing development west of the known mineral reserves, but accepting major development in close proximity to active mineral sites, or foregoing the minerals which form one of the two major areas identified in the Norwich policy area in the draft minerals and waste local development framework (the other area is in the north). Given that a major new employment location would require good access to the strategic road network, in this

	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?				case the A. 140, if the minerals development were to proceed, it would be difficult to include employment within a major growth location in the early stages, exacerbating the relative remoteness of this area from existing strategic employment locations. The location performs particularly poorly in this respect.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?	Na	+	+	The area is close to some parts of Norwich which include pockets of deprivation, and it may make a contribution providing employment opportunities offering the right kind of training can incorporated within it. The area performs on marginally better
	Will it help meet the needs of residents most effectively?				than some other locations in this regard.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+	+	There is a reasonable range of facilities in Mulbarton, in particular, and to a lesser extent in Swardeston and Swainsthorpe. However, a major new development would need to be of a scale capable of supporting a wide range of facilities.
SOC 3 To improve education and skills.	Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers?	Na	+/-	+/-	Aim is for development of a scale to provide new secondary schools or to be located where there is existing capacity) Children from the area currently attend secondary school at Hethersett. It would be important for a major community to have easier

	Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				access to high school facilities, without compromising those already provided elsewhere. In this respect, this location performs worse than many others. The school at Hethersett does not currently provide sixth form education.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan provide for an appropriate proportion of affordable houses in major developments. There is no reason to believe that this should not be achievable in this location.
SOC 5 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?	Na	+	+	There is a reasonable range of facilities at Mulbarton, but a more limited range and elsewhere. Access to community activities is therefore likely to be dependent on any new development being capable of supporting a range of new facilities. This may provide some additional opportunities for existing residents. it is however relatively remote from the wider range of facilities to be found in larger centres such as Norwich or Wymondham, and as a consequence performs slightly worse than most other locations in this respect. With regard to the achievement of a mixed and balanced community, and crime issues, this location is likely to perform no better or worse than any other.
SOC 6 To offer more	Will it reduce unemployment overall?	Na	?	?	This area is a reasonably close to the employment area at Hall Road. It is however not well related to

opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?				other existing strategic employment locations, and its contribution in reducing unemployment or improving earnings is likely to be highly dependent on the inclusion of significant employment opportunities within the development, or the creation of other new opportunities nearby and accessible to the development. In this regard therefore there is a higher risk associated with this location than many others.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+/-	+/-	Not well located for choice of strategic employment. Some prospects for enhanced public transport – dependent on precise location. There are few existing services, other than the local services in Mulbarton, and the more limited range elsewhere. Access to key local services is likely to be dependent on the new development being able to support them. Apart from such services, the nearest alternatives are likely to be in Norwich.
		Na	. (
EC 1 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 	Na	+/-	+/-	The choice of locations for a major development is likely to have a very limited impact on the wider economy, but this area has relatively poor access to a choice of strategic employment locations and thus the links between the labour pool and employment opportunities are likely to be marginally worse than with some other options. To a degree this could be satisfied if significant employment opportunities can be created within a development.

	improve economic diversity?				
EC 2 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? Will it support / encourage small city businesses? 	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives, therefore the reasons noted above it is unlikely to be a strong performer.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	+/-	+/-	This location is not well related to strategic employment locations. It is relatively close to Hall Road/ locations closer to A11 could have better access to NRP or City Centre. In terms of accessibility, it is very dependent on the creation of new employment opportunities in this to delete locality, either as part of a major development, or nearby. If this can be achieved, such opportunity is would be reasonably connected to the strategic road network via the A 140 and the southern bypass.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? Will it attract new investment and skilled workers to the area? Will it maintain existing business and employment provision? 	Na	+	+	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. The area would have a reasonable access to the strategic growth network and should therefore be reasonably attractive to investors. In this respect the location performs moderately well.

Will it provide employment in the best locations to serve urban and rural residents?					
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Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?

• POLICY OPTION: Growth Location South

Environmental Impacts	There are relatively few existing environmental assets which would be threatened by development here, provided it was carefully planned. The biggest factor concerns the presence of substantial mineral reserves. For development to proceed in the early part of the plan, these would have to be sacrificed, or large numbers of residents live alongside a large active mineral working, with consequential environmental effects. It may be possible for development to follow the mineral extraction, but this would involve the development getting underway very late in the plan period and would therefore constitute a serious risk to the delivery of the plan's housing objectives.
Social Impacts	The existing communities of Mulbarton, Swainsthorpe and Swardeston would experience major impacts, but conversely might gain from a wider range of community facilities and social opportunities. For this to be achieved it is critical that any development located here is large enough to support a wide range of facilities, given the relatively limited range of existing opportunities. In particular, care would need to be given to the provision of secondary school education, without impacts elsewhere as a consequence of the abstraction of students from the existing villages in this area.
Economic Impacts	The area is quite close to the whole of road but otherwise has limited connections with any existing or proposed strategic employment locations. Its economic well being could be thwarted therefore would be highly dependent on the incorporation of substantial employment opportunities within the development or nearby, unless a very high level of car dependency for journeys to work were to be contemplated.

Overall summary:	Overall the area does not perform as well as some others.
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	There is no obvious mitigation which can overcome the issues surrounding the mineral deposits. There is an active permission at present and significant allocations in the mineral and waste local development framework (currently in draft form).Unless these minerals are sacrificed and allowed to remain in the ground, there is a significant inherent risk to delivery arising from the need to exploit them before development of houses could be undertaken in the areas affected. The uncertainties surrounding the rate of mineral extraction would constitute a risk to delivery of any housing allocation
	For residents to have reasonable access to employment there would need to be a significant element of employment included within a large scale mixed development. This would be dependent on the market for employment development coinciding with the market for housing development both being reasonably buoyant.
	Any development would need to be sufficiently large to support a wide range of community facilities, and in particular secondary education. Care would need to be taken that such provision did not have adverse consequences on existing provision elsewhere.

Option Appraised: Growth locations – South East

++ Very positive	effects + Positive effects		Very negat	ive effects	-	Negat	ive effects +- Mixed effects	
N Neutral / insignificant effects		?	Uncertain effects		Na	a Sustai	Sustainability objective is not applicable to this option	
SA Objective	Decision making criteria		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects		
ENVIRONMENTAL ENV 1 To reduce the effect of traffic on the environment.	Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys of other than the car? Will it reduce the effect of HGV traffic on p environment? Will it encourage more benign modes of tr Will new development be located such to b for people to travel?	using eople avel?	modes and the	Na	-	-	Poorly related to choice of strategic employment. Limited prospects for high quality public transport. Limited existing local services. The south east is poorly located for access to a choice of strategic employment sites, or facilities other than those in the village. There are limited prospects for developing a high quality public transport service incorporating suitable bus priorities to the city centre. This area is likely to perform very poorly against this sustainability objective	
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water env (streams, rivers, lakes etc)? Will it help to support wetland habitats and			Na	Ν	Ν	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.	
ENV 3	Will it improve air quality?			Na			This area offers a poor prospects for access to	

To improve environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				employment locations all services beyond the immediate settlement of the than by the private car, and is therefore unlikely to minimise transport emissions. It therefore performs poorly in this regard. In other respects there is a little to distinguish this location from others in terms of equality or overall environmental amenity
ENV 4 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? 	Na	-	-	There are one or two localized areas of nature conservation value, but no extensive areas, and any impact on these would be a design and siting issue. The known surface water drainage difficulties in these areas are compounded by the fact that, if piped systems were needed, flows to the river Yare And Chet would have to flow through international leaders admitted sites.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			The area does not include conservation areas, or landscapes protected for their inherent quality, though there are areas of woodland and parkland predominantly to the north east of Framingham Earl. There are also areas of archaeological interest to the north of Framingham Earl/Poringland at Arminghall.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the	Na	+-	+-	All development will impact on emissions. All locations have possibilities for renewable energy/energy efficiency. There is no reason to believe that this location would perform any better or worse than any other in this regard. However in terms of transport emissions, as noted above, the southeast is likely to be one of the most poorly

	effects of climate change? Will it ensure that the risks to lives, land and property are minimised?				performing areas, as it will be difficult to provide a high quality alternative to the private motor vehicle.
ENV 7 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?	Na	Ν	N	Relatively little of the area is at risk of flooding from fluvial causes, but the area is known to prove difficult in terms of surface water drainage, and the strategic flood risk assessment shows this as an area where SUDS based on infiltration alone are less likely to be successful
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	The location does not have a significantly different impact to others. Conservation of groundwater resources will therefore need extremely careful design of SUDS. Water supply should present no particular difficulty, although the length of pipe required from Heigham is considerable.
ENV 9 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 promote the use of renewable energy sources? 	Na	-	-	All major growth locations under consideration would require significant Greenfield development. However the land in this area is not considered to be among the best and most versatile agricultural land the area is an average performer in this respect.
	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?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies in the plan support social inclusion This location is not close to areas of major deprivation and it will have little direct impact on the reduction in deprivation overall, other than by its general support of the local economy. It performs less well than the redevelopment of locations where there is already a high degree of social exclusion. Its relative inaccessibility to the Norwich urban area means that any employment opportunities all facilities created here will be relatively inaccessible to residents in other parts of the area who do not have access to a private motor vehicle.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	+/-	+/-	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services All development will be planned to provide health facilities and "countryside" access (accessibility ENV1 will be critical). However only large scale development will be able to provide a good range of facilities. The Norfolk joint strategic needs assessment published in 2008 suggests that this location is an area of possible future concern with some localised existing problems of access to health facilities.
SOC 3 To improve education and	Will it improve qualifications and skills for both young people and amongst the workforce?	Na	+/-	+/-	Aim is for development of a scale to provide new secondary schools or to be located where there is existing capacity) The area has currently good

skills.	 Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 				educational provision for the existing population, up to the age of sixteen, but no local sixth form facility and the limited access to Norwich means that for the education will not be so accessible to residents of this area as some others. Therefore in terms of this criterion, in spite of the good existing facilities, the location performs slightly below average.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	The plans and aim is to provide for affordable housing need and the full quantum of provision. There is no reason to believe it cannot be achieved in this location.
SOC 5 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? 	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There are a number of existing facilities in this location, although not the facilities are dispersed. However, there is no reason why this location could not meet those objectives and result in an enhanced range of facilities to serve existing residents as well as new ones. Detailed design is likely to be the significant determinant of success. Overall, this location performs reasonably in this regard, although not quite as well as some areas with a wider range of community activities already established.
SOC 6 To offer more	Will it reduce unemployment overall?	Na			The southeast is not well related to any strategic employment locations, and access to all other than

opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?				the employment available in the immediate locality is likely to depend on the possession of a private motor vehicle. Any reduction in overall unemployment or increase in overall earnings would be related to the employment forming an integral part of any large development here. It would therefore be relatively inaccessible to residents elsewhere in the Norwich area, and it may well have a smaller potential pool of labour to draw on. Overall this area does not perform well in this respect
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+-	+-	Poorly related to choice of strategic employment. Limited prospects for high quality public transport. Limited existing local services. This location is likely to be highly dependent on the private car for access to jobs and services other than those in the immediate locality. There is a limited prospect for high quality public transport to the rest of the Norwich area.
ECONOMIC					
EC 1 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?	Na	?	?	The southeast has relatively poor connections to the rest of the Norwich policy area, other than by the private car. Employment here is thus likely to draw on a more limited labour pool than employment in some other parts of the Norwich policy area, and development here is therefore unlikely to be as supportive of the wider Norwich area economy as a development which is better related to a range of employment locations.

	Will it increase vitality & viability of town centres and improve economic diversity?				
EC 2 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? Will it support / encourage small city businesses? 	Na	+	+	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives, therefore the reasons noted above it is unlikely to be a strong performer.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	-	-	For the reasons described above in EC1 and EC2, this location is unlikely to perform well, in particular in Improving accessibility to work by public transport, walking and cycling.
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?Will it attract new investment and skilled workers to the area?Will it maintain existing business and employment	Na	-	-	The area is not well related to strategic employment locations and emissions arising from journeys to and from work and are likely to be higher for this location than others. In other respects, other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives. It.is unlikely to be materially better or worse in terms of this criterion than employment in any other major greenfield

provision?		location.
Will it provide employment in the best locations to serve urban and rural residents?		

POLICY OPTION: Growth locations – South East

Environmental Impacts	The area is poorly related to strategic employment sites and services, limiting the opportunity to reduce the environmental impact of travel. It is also an area where surface water drainage has proved difficult in the past. If piped drainage were to prove necessary, care would have to be taken to avoid damage to internationally designated wildlife sites. There are relatively few environmental constraints in the immediate vicinity, apart from the archaeological interest to the north at Arminghall.						
Social Impacts	There are some local services but limited access to strategic services away from the immediate locality. the relatively remote services of this						
Economic Impacts	This scenario is a poorly located to support strategic employment locations, and a pool of labor here is a less likely to be beneficial to employers in other localities.						
Overall summary:		Growth would have to be sufficient scale to support a greater range of services but opportunities for sustainable access to Norwich and strategic employment sites are limited.					
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 		More analysis needs to be undertaken on landscape impact.					

Option Appraised: Growth location: South West

++ Very positive	effects +	Positive effects		Very negat	tive effects	-	Negat	tive effects +- Mixed effects
N Neutral / insig	gnificant effects		?	Uncertain e	effects	Na	a Sustai	inability objective is not applicable to this option
SA Objective		Decision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
	· · · · · · · · · · · · · · · · · · ·			- 66	NL			
ENV 1 To reduce the effect of traffic on the environment.	reduce congesti Will it increase to other than the conversion of t	the proportion of journeys ar? e effect of HGV traffic on p e more benign modes of tr pment be located such to	using beople ravel?	modes and the	Na	+	+	The area is well located for NRP, cyclable to Longwater subject to appropriate routes being provided. Excellent opportunities for high quality public transport public transport to city centre, as located on radial public transport coroner which currently performs best. Fulfilment of this potential would depend on creating suitable priorities to avoid queuing traffic at Thickthorn junction. Local measures and to improve performance of the junction are likely to be needed. There are limited local services at present, which could be augmented by large scale development. There is the potential for a bus/cycle link to NRP using Hethersett Lane. For larger scale development, this location appears to be one of the best performers in relation to this

					sustainability objective.
ENV 2 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?	Na	N	N	The location has no specific strategic impacts on the water environment. Impacts of the location are likely to arise from detailed design and siting.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	-	-	The area offers good prospects for bus, cycling and walking, which should help to limit emissions from motorized transport. In other respects there is a little to distinguish this location from others in terms of air quality or overall environmental amenity.
ENV 4 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? 	Na	+-	+-	There are a few localised sites of nature conservation interest, and a significant area of historic parkland which lies to the south of the former A11, which would need to be taken into account at the detailed design and siting stage provided these can be suitably incorporated, the area does not appear to be subject to major constraints, and performs well in relation to this criterion.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. The impacts can be mitigated by good design and to avoid the most sensitive sites. The location of major growth here would be likely to involve the coalescence of the existing villages of Little Melton and Hethersett. Neither village includes a conservation area Check this location with south Norfolk colleagues
ENV 6 To adapt to and	Will it reduce emissions of greenhouse gases by reducing energy consumption?	Na	+-	+-	All development will impact on emissions. All locations have possibilities for renewable

mitigate against the impacts of climate change.	Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?				energy/energy efficiency and there is no reason to believe this location will perform any better or worse than any other in this regard.
ENV 7 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?	Na	+/-	+/-	There are few parts of this location which have a high probability of flooding, but the area generally is not particularly suited to SUDS techniques which work by infiltration alone, and therefore careful design will be needed. Subject to this, flood risk should not be a major problem.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	The location does not have a significantly different impact to others. Conservation of groundwater resources will therefore need careful design of SUDS. Water supply should present no particular difficulty.
ENV 9 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? 	Na	-	-	Major development in the area would involve significant Greenfield development. The area does not contain significant tracts of agricultural land of the highest quality. [check south Norfolk colleagues] In other respects, this location performs no better or no worse than other locations

SOCIAL	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?				
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies in the plan support social inclusion This location is not close to areas of major deprivation and it will have little direct impact on the reduction in deprivation overall, other than by its general support of the local economy. It performs less well than the redevelopment of locations where there is already a high degree of social exclusion, but little different from most urban edge sites.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Na	++	++	Other Plan policies will ensure health facilities are provided and access to the countryside. This location could deliver the health infrastructure and other services All development will be planned to provide health facilities and "countryside" access (accessibility ENV1 will be critical). However only large scale development will be able to provide a good range of facilities. Healthy lifestyles will also be facilitated by enhanced use of cycling and walking for day to day needs This area is closer to the Norfolk and Norwich University Hospital, and the existence of a large area of historic parkland, if it can be incorporated,

					offers of the potential for a good informal recreation facility/country park.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	Na	+	+	Other plan policies will ensure adequate education infrastructure and learning opportunities are provided. A satisfactory outcome in this location is likely to depend on development of a scale to provide a new secondary school.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 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?	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There are a number of existing facilities in this location, but Compared with the size of the population, the ranges are relatively limited, and dispersed. However, there is no reason why this location could not meet those objectives and result in a better range of facilities to serve existing residents as well as new ones. Detailed design is likely to be the significant determinant of

SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	++	++	success. Overall, this location performs reasonably in this regard, although not quite as well as some areas with a wider range of community activities already established. This location is close to NRP, and has the potential for good sustainable ends for using Hethersett Lane. It also has easy public transport access to the city centre, relatively easy cycle access to Wymondham (and to Longwater subject to suitable routes and being provided). It therefore has good access to a wide range of employment locations offering a range of employment opportunities and in this respect is one of the best performers.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+	+	This location is a well located for NRP, and cyclable to Longwater, subject to suitable routes being provided. There are excellent opportunities for high quality public transport public transport to the city centre providing priority can be achieved at the Thickthorn junction. There are limited local services at present, although these and might be significantly enhanced by large scale development, buffering some benefit to existing, as well as new, residents. The location is also are relatively close to Wymondham, which offers a good range of retail and community facilities. Overall the location performs well enters of accessibility to services facilities and jobs.
ECONOMIC EC 1	Will it assist in strengthening the local economy?	Na	+	+	Other policies in the plan seek to strengthen the
		ina	т	т	

To encourage sustained economic growth.	 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? 				economy. A secondary factor is the good access to a range of employment locations (NRP, city centre, Wymondham, Longwater, hospital) make this area better than many of the alternatives.
EC 2 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? Will it support / encourage small city businesses?	Na	Ν	N	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	++	++	This location is close to NRP, with the prospect of good sustainable links via Hethersett Lane, and has potentially excellent public transport access to the city, (subject to achieving suitable priority at the Thickthorn junction). It is a within a relatively easy cycling distance of Wymondham and also of Longwater subject to suitable routes being provided. Overall the area is it better than most others in the relation to this sustainability objective.
EC 4	Will it reduce the impact on the environment from	Na	+	+	Other policies in the strategy look to protect the

To improve the social and	businesses?	environment from the impacts of growth which will include businesses. This location has the potential
environmental	Will it reduce the impact on residents from businesses?	for excellent bus access to Norwich and by bus and
performance of		cycle to NRP. It is also within cycling distance of
the economy.	Will it attract new investment and skilled workers to the	Wyndham and Longwater and overall, is well placed
	area?	to minimize the environmental impact of journeys to
		work for stop in other respects, there are no
	Will it maintain existing business and employment	particular features to distinguish this location from
	provision?	others in terms of the social and environmental
		performance of the economy, and on balance this
	Will it provide employment in the best locations to serve	location is average in its performance against this
	urban and rural residents?	objective.

POLICY OPTION: Growth locations – South West

Environmental Impacts	This location provides good opportunities to minimize the impacts of transport on the environment that it contains few areas of existing environmental constraints and some opportunities in the form of historic park land which could be incorporated in a green infrastructure led approach. Areas of the flood risk are not particularly extensive. Ground conditions in the area are likely to me in that SEUDS will require attenuation to support infiltration, and this may give opportunities for some habitat creation, in the context of an overall green infrastructure strategy. Major development would however have the effect of: coalescing two existing villages.
Social Impacts	This location is well located to provide a choice of easily accessible services and work options. There is a limited range of local facilities, though the area offers relatively easy access to facilities in Norwich and Wymondham, and major development might offer the opportunity to enhance local facilities.
Economic Impacts	The area is well located in relation to strategic employment opportunities and growth here should encourage employment investment at a number of the strategic locations nearby, though the choice of major growth location is likely to be a secondary factor in the overall performance of the Norwich area economy

Overall summary:	The scale of development in this location would need to be large enough to provide a wide range of services. Subject to the necessary transport priorities this area and would have good public transport access to a range of employment locations (Norwich city centre, Norwich research park, Norfolk and Norwich university hospital) and it would also be
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 	within reasonable cycling distance of Longwater and Wymondham. If Wymondham were also to be selected as a growth location with improved public transport, the southwest would also benefit from public transport links in that direction too, benefiting from the range of social and employment opportunities available. Environmental constraints are limited, though major developments here would result in the coalescence of two villages. SUDS would need to be carefully designed with appropriate attenuation in view of ground conditions, potentially offering the opportunity for habitat creation. More analysis needs to be undertaken on landscape impact.

Option Appraised: Growth Location - West

++ Very positive				V			ive effects +- Mixed effects
NNeutral / insignificant effects?Uncertain			effects Na Sustainability objective is not applicable to this option				
SA Objective	Decision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of the Will new development be located such to for people to travel? 	using r beople avel? reduce	modes and the	NA	+-	+-	This area is close to Longwater employment and retail cyclable to Norwich Research Park. It is relatively far from the city centre compared with other urban edge sites. There are some bus priority measures in place, but these are discontinuous, and the section between the outer ring road and inner ring road needs considerable improvement. The location has good access to the strategic road network and is thus likely to limit the incursion of additional HGV traffic into the built up area. Locations to the south and west of the A47 will require significantly improved connections across the A47 to be attractive for cycle journeys. But the Longwater junction currently performs poorly and localized improvements would be needed. Overall, the area performs reasonably but is not one of the best in this respect.
ENV 2 To improve the	Will it improve the quality of the water env (streams, rivers, lakes etc)?	ironme	ent				Detailed design can help overcome such considerations. The area is, however, are relatively

quality of the water environment	Will it help to support wetland habitats and species?	N	Ν	Ν	constrained by the presence of river valleys to the north and south. These mean that options for the layout of major growth could be limited. There are localised areas of conservation importance in the valley of the river Yare to the south, and these would need to be protected. The underlying ground conditions in mean that SUDS based on infiltration should be relatively successful. This means that the provided the scale of development can be accommodated within the available space without a threat to the water environment the area should perform fairly well.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	NA	-	-	There are a number of facilities close to hand, and prospects for walking, cycling and bus transport are relatively good, though as noted above under ENV 1, considerable improvements to bus priorities and cycle links across the A47 will be needed. In other respects, There is little if anything to distinguish this area from others in terms of likely emissions of atmospheric pollutants, and this location is unlikely to have significant effects on the baseline conditions compared with others.
ENV 4 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? 	NA	+-	+-	There are no significant strategic impacts associated with this location. Local impacts such as the need to protect the landscape and sites in the Yare valley can be mitigated by appropriate detailed design and siting which will be led by the Draft Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes,	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the	NA			All locations will have a dramatic negative impact on the local landscape and townscape. The principal and need in this area is to avoid damage to valley

townscapes and the historic environment.	landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?				landscapes, and this may limit the scope and potential layout for large scale development. This applies particularly to the Yare valley in the south, who and to longer views from the Wensum valley in the western part of the area. For more limited growth the area offers potential without infringing serious constraints.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	NA	+-	+-	All development will increase emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features of this location that make it significantly better or worse than others.
ENV 7 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?	NA	+	+	The ground conditions in the western area are likely to permit the effective use of SUDS based on infiltration, and the area performs well in this respect. Other policies in the plan are intended to avoid development in areas at risk of flood.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	NA	-	-	The location does not have a significantly different impact to others.
ENV 9 To make the best use of resources,	Will it minimise consumption of materials and resources? Will it promote the use of land in sustainable locations that	NA	-	-`	This location, like all others being considered for strategic growth involves significant greenfield development. It is not an area of particularly high

including land and energy, and to minimise waste production.	 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? 				quality agricultural land
SOCIAL		N1 0	1		
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	NA	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is not the most accessible and therefore may not contribute to the objectives as much as other locations.
SOC 2 To maintain and improve the health of the	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How?	NA	++?	++?	All development will be planned to provide healthy activities and "countryside access (accessibility etc) there Is a range of facilities in Costessey, Easton and Bowthorpe, though these are some distance

whole population and promote healthy lifestyles.	Will it provide adequate health infrastructure for existing and new communities?Will the links between poorer health and deprivation be addressed?Will links to the countryside be maintained and enhanced?				away. in large scale development would provide facilities on site, but smaller scale development offers less certainty in this respect. development to the south of the A47 Would require significant improvements in infrastructure to permit cycle access to most existing facilities. the Location does not perform particularly well in this regard
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	NA	+	+	If development is of a scale to provide new secondary schools or to be located where there is existing capacity, the location would perform well. However the existing high school at Costessey is at capacity and students from a smaller development would need to travel to Hethersett. The area would perform well for larger scale growth, but for smaller scale growth there would be more challenges. The area is well are located in relation to Easton College which offers a range of further educational opportunities.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	NA	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives
SOC 5 To build community identity, improve	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	NA	+/-	+/-	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant

social welfare, and reduce crime and anti-social activity.	Will it reduce actual levels of crime? Will it reduce the fear of crime?				determinant of success. In the case of this potential growth location, for development to the south of the A47, this is the likely to require considerably improved pedestrian/cycle access to areas to the north of the trunk road. If development lies on both sides of the trunk road, particular attention will need to be focused on minimising the effect of this road as a barrier.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	NA	+	+	The area is close to Longwater and Bowthorpe employment areas, and potentially cyclable to NRP. There is a public transport corridor to the City Centre, but it does not currently perform well and would need considerable improvement. Overall, the area performs fairly well in terms of access to employment opportunities.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	NA	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	NA	+/-	+/-	This location is close to Longwater and Bowthorpe employment areas and Longwater retail. It is also a reasonably close to other facilities at Costessey and Bowthorpe.The area is within a cycling distance of NRP. However, access to all of these is subject to suitable routes being created. There is potential for good bus links to City Centre but at this area is a fair way out, and served by a currently poorly performing public transport corridor. Overall, the area performs reasonably well, but this assessment is subject to the creation of the necessary infrastructure. If that this cannot be provided, the

					A47 creates a major barrier and the parts of the area to the south of the trunk road would perform badly.
ECONOMIC					
EC 1 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? 	NA	÷	+	Other policies in the plan seek to strengthen the economy. There is little to suggest that the choice of growth and location will make a great difference to the wider economy, though this area is relatively close to Longwater, Bowthorpe, and the NRP employment areas. In this respect it performs slightly above average
EC 2 To encourage and accommodate both indigenous and inward investment.	Will it encourage indigenous businesses? Will it encourage inward investment? 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? Will it support / encourage small city businesses?	NA	+	+	All locations will provide similar opportunities for But this location is relatively close to employment areas at Longwater, Bowthorpe, and the NRP, and in this respect performs a slightly above average.
EC 3 To encourage efficient patterns of movement in support of economic growth.	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges?	NA	+	+	The area is a close to three employment locations, but is some a distance from the city centre, which offers of the greatest choice in the Norwich area. It does not offer read the public transport access to other major employment locations outside of the plan area. The benefits of proximity to local employment areas are highly dependent on detailed design of providing for the necessary infrastructure,

	Will it improve efficiency and sustainability of freight distribution?Will it support provision of key communications infrastructure?				if reliance on the car is to be avoided. overall the area performs slightly above average in relation to this criterion
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	NA	++	++	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location does not have the potential for rail access and has limited bus access to Norwich, but is a relatively close to three employment areas. On balance this location is average in its performance against this objective

• POLICY OPTION: Growth location – West

Environmental Impacts	There is a reasonable choice of employment and service locations but some distance from City Centre. Access to the local employment and service locations, other than by car, is highly dependent on detailed planning to provide safe cycle/pedestrian routes, and on improvements to the Dereham Road bus corridor. While landscape is still to be investigated in detail, position in relation to river valleys suggests large scale growth could be constrained. A47 further constrains options.
Social Impacts	There are some existing local facilities, but access other than by car will be highly dependent on suitable infrastructure. If environmental constraints should limit the amount of development which can be accommodated in this location, this factor will be particularly important. The area benefits from proximity to Easton college which offers a further education facility, and also includes some sporting facilities.

Economic Impacts	hic Impacts The area is close to Longwater employment area, and reasonably close to the Bowthorpe employment area and within a reasonable distance of the NRP. However if the development is located to the south of the A. 47, these of benefits will be reduced unless attractive cycle/pedestrian routes can be provided. For an urban edge location, this area is some way from the city center, and it does not offer easy public transport access to employment opportunities outside the plan area.			
Overall summary: Impacts Possible mitigation Recommended fur Considering cumu 	ther research	Large scale development would be required to deliver a wide range of services, but the potential for this might be limited by landscape constraints and the need to avoid development in flood plains, particularly that of the river Yare to the south. If larger scale development is not deemed appropriate, any smaller scale development will need particular and this is placed on overcoming the effects of the a 47 as a barrier to local journeys, including those two local facilities there appeared to be no overriding environmental constraints to a more limited form of development provided this practical concern can be overcome.		
		Landscape impact to be investigated.		

Option Appraised: Growth location: Wymondham

++ Very positive			ative effects			ive effects +- Mixed effects
N Neutral / insig	gnificant effects	? Uncertair	effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTA				r	T	
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys us other than the car? Will it reduce the effect of HGV traffic on peenvironment? Will it encourage more benign modes of travel Will new development be located such to refor people to travel? 	sing modes ople and the vel?	Na	+-	+-	Good local facilities and public transport options will moderate car impact. Good opportunities to expand high quality public transport. Wymondham benefits from a rail connection on the Norwich – Cambridge line, which also serves another major growth area at Thetford. Subject to being able to overcome the challenge of the Thickthorn Junction with the A47, it is served by the best performing public transport corridor within the urban area of Norwich. The presence of a town centre with a number of facilities, and local employment opportunities, should help to reduce the length of some journeys, mitigating against Wymondham's location some distance from Norwich. However the centre of Wymondham is vulnerable to traffic intrusion and this would need to be taken into account and planned for. And the injunction of the A47 and the A11 we'll need some localised improvements.Overall, it is one of the better

					performing locations.
ENV 2 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?	Na	N	N	There is an important ecological area at "the Lizard" which will need to be protected through detailed design and siting of any development. There are Areas of relatively impermeable stores where it might be possible to create wetland habitats.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	Na	-	-	Good travel choice and local facilities but some distance from Norwich. Will be necessary to avoid adding to the traffic congestion in the town centre where large numbers of people congregate, but subject to this caveat, likely to be one of the better locations at the minimising pollutants from motorised traffic.
ENV 4 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? 	Na	+-	+-	Detailed design and siting should enable such sites to be avoided. There are localised small sites of value to the north, west, and south of the town, with "the Lizard" to the south east being the best known. Development to the south crossing the railway line would need to take account of one such area, but my offer opportunities for enhancement as part of the development.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Na			All locations will have a dramatic negative impact on the local landscape and townscape. Aim is to mitigate by good design and to avoid the most sensitive sites. A location to the South of the town would not affect areas of particular landscape value and would avoid encroaching on the traditionally valued at between Wymondham and Hethersett.
ENV 6 To adapt to and mitigate against	Will it reduce emissions of greenhouse gases by reducing energy consumption?	Na	+-	+-	All development will increase emissions but the location has potential for renewable energy and to incorporate energy efficiency. There are no features

the impacts of climate change.	Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?				of this location that make it significantly better or worse than others.
ENV 7 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?	Na	+/-	+/-	Parts of Wymondham have underlying soils which limit for the infiltration capacity. SUDS will therefore need to be carefully designed. There is a water course to the south of the town which runs northwards to join another watercourse adjacent to the southern part of the town. The impact of any drainage proposals will need to avoid adding to flood-risk or damaging the nature conservation sites adjacent to these water courses. Wind and has its own sewage treatment works which has an existing headroom capacity of approximately 4000 properties. Development above this capacity would be likely to require investment in the treatment works. To the
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Na	-	-	The location does not have a significantly different impact to others.
ENV 9 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? 	Na	+/-	+/-	All major locations will involve major greenfield development. The land in this area does not include large areas of the best and most versatile agricultural land. subject to detailed design it appears to be one of the better performing locations.

	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?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Na	+	+	Other policies will aim to create sustainable, inclusive communities. As this location is removed from the more deprived areas on the plan it is unlikely to have a significant impact. The location is one of the more distant from Norwich, but enjoys a public transport access to the city which has the potential to be improved, and a range of local employment opportunities and services close to hand. It will therefore provide for appropriate services for residents but will not specifically help to reduce exclusion in those areas most affected.
SOC 2 To maintain and improve the health of the whole population	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing	Na	++	++	All development will be planned to provide health facilities and "countryside" access (accessibility ENV1 will be critical). Healthy lifestyles will also be facilitated by enhanced use of cycling and walking for day to day needs In

and promote healthy lifestyles.	and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced?				this respect Wymondham performs well as there is already a good range of facilities, which can be enhanced by large-scale new development, and a range of other facilities within walking and cycling distance, subjects to the provision of suitable routes
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	Na	+	+	There are two good Secondary schools at Wymondham. Although a large scale new development would be expected to provide new or enhanced facilities, the presence of the existing schools means that facilities are in place from day 1.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Na	++	++	Other policies in the plan require that housing needs are met requiring a mix of housing and setting levels of affordable housing. There is no reason why this location could not meet those objectives.
SOC 5 To build community identity, improve social welfare,	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	Na	++	++	Other policies in the plan seek to secure safe and sustainable communities. There is no reason why this location could not meet those objectives. Detailed design is likely to be the significant determinant of success. Wymondham already

and reduce crime and anti-social activity.	Will it reduce actual levels of crime? Will it reduce the fear of crime?				provides a good range of community facilities and has a well developed community spirit, and therefore performs well against this sustainability objective.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Na	+	+	Wymondham has good access to a choice of strategic employment opportunities, including a range within the town centre. It is, however, further than many other locations from the large range of employment opportunities within the Norwich urban area.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Na	+	+	Other policies in the plan seek to secure safe and sustainable communities.
SOC 8 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? 	Na	+	+	Wyndham has a good range of local services which will be relatively close to a new development in this location. It has rail access to Norwich and Cambridge, and together these factors offer mitigation for the increased distance from the range of higher order services in Norwich city centre.
ECONOMIC		I	1	1	
EC 1 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? 	Na	+	+	Other policies in the plan seek to promote economic well being. This location has no significantly different effect in this regard compared with others. Ilthough Wymondham is further from the concentration of economic activity in Norwich, it is a successful employment location in its own right, and new development will help to support the local services and economic activity already established at

	Will it increase vitality & viability of town centres and improve economic diversity?				Wymondham, and nearby.
EC 2 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? Will it support / encourage small city businesses? 	Na	N	N	Other policies in the plan seek to encourage investment. There are no specific factors that make this location significantly different from the alternatives
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	Na	++	++	Close to Gateway 11, and a choice of local employment locations. There is a good range of local employment opportunities, and good train access to Cambridge and Norwich, and potentially could bus access to Norwich. These good connections offer mitigation for the fact that Wymondham is further than most other options from Norwich. Wymondham also offers a good range of local jobs and thus performs fairly well against this criterion.
EC 4 To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?Will it attract new investment and skilled workers to the area?	Na	++	++	Other policies in the strategy look to protect the environment from the impacts of growth which will include businesses. This location has the potential for rail access to Norwich and Cambridge and the potential for good bus access to Norwich. This location is slightly better than average in its performance against this objective.

Will it mai provision?	ntain existing business and employment		
	vide employment in the best locations to serve rural residents?		

• POLICY OPTION: Growth location: Wymondham

Environmental Impacts	Although some distance form Norwich, good locally accessible services and opportunities for high quality public transport moderate impact of transport on the environment. There are localised areas of environmental quality, but no large scale environmental constraints which would make the location unsuitable in environmental terms. The underlying ground conditions mean that effective SUDS might require some attenuation, but this may also offer potential for enhancement of the water environment.
Social Impacts	Development at Wymondham would have good access to a range of local facilities and job opportunities. Wymondham already has a strong established community which should assist the establishment of community spirit in the new development, making this one of the better locations in this respect. Of all the locations under consideration, it has the widest range of town centre uses outside Norwich.
Economic Impacts	Wyndham is further from the range of job opportunities at Norwich than many alternative locations, but is a well established employment location in its own right which has already demonstrated its ability to attract employment investment. The town also enjoys good strategic links by train to Norwich and Cambridge widening employment opportunities which are readily accessible. Of all the locations under
	consideration, it has the widest range of town centre uses outside Norwich.

Overall summary:	There are a number of positive factors which suggest Wymondham is a good location for growth. The biggest question mark concerns its distance from Norwich compared with other locations. However, there are mitigating factors in the form of good existing rail connections, including a rail connection to Cambridge, and the fact that Wymondham is located on the best performing radial corridor in Norwich in public transport terms. Priority measures to ensure buses can access this
ImpactsPossible mitigation measures	are the key prerequisite. In this respect, this location is likely to perform best when combined with major growth at the
 Recommended further research Considering cumulative impacts 	south west to facilitate the continuity of public transport priorities.
Considering cumulative impacts	Wymondham is a well established employment location, lying on theA11 corridor recognized as a key strategic transport corridor in the East of England Plan.
	Accepting that there will be additional vehicular traffic generated, there is a need for additional work at the Thickthorn junction to ease certain movements.edu and

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Option Appraised: Preferred Option -

City Centre Commercial and Cultural Led Development

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	N Neutral / insignificant effects			?	Uncertain effects	Na	Sustainability objective is	oplicable to this option	

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects			
ENVIRONMENTAL								
ENV 1 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?	+-	+	++	 The Preferred Option: promotes sustainable transport in accordance with NATS; co-locates employment, services and housing thus reducing the need to travel; focuses employment and services development in the most sustainably accessible location in the sub-region. It is likely to be more successful in medium to long 			

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 vrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
	Will new development be located such to reduce the need for people to travel?		<u>yıs</u>		term. Initially new infrastructure provision will create some congestion. Removal of through traffic from the city centre and further promotion of sustainable transport schemes will be enabled in the medium to long term by completion of Northern Distributor Road and the implementation of bus rapid transit systems.
ENV 2 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	+	+	The main effects on water quality and therefore habitats and species will result from improvements to water treatment at sewage works that are scheduled by Anglian Water for the medium term. The choice of different options would be unlikely to affect this. Brownfield development will protect wetland habitats from development.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+ -	++	++	The reduction in the need to travel and the more sustainable pattern of movements this option would generate identified in comments on ENV1 would enable improvements in air quality in the city centre since traffic is the primary source of air pollution. Infrastructure will have to be put in place before improvements will materialise – this could see some negative effects in the early years.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 4 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? 	+	+	++	The Preferred Option provides for improvements to open spaces, green linkages and connections between open spaces, linking to the river corridor and the open countryside and as such would benefit biodiversity and geodiversity.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+	++	++	The Preferred Option will promote redevelopment of brownfield sites and therefore reduce the need to develop green field sites. The policy requires that new development should enhance the townscape and the historic setting in the City Centre Conservation Area (the "contemporary medieval city"), using the Conservation Area Appraisal to guide design, and protect archaeology.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	+	++	++	Policies elsewhere in plan require development to be adapted to and to mitigate against climate change. National Building Regulations will require all housing development to be zero carbon by 2016 and all development by 2019. Focus on high density development in city centre promotes reduction in CO2 emissions by promoting sustainable travel patterns and enabling area wide sustainable energy schemes to be incorporated. Focus on open spaces and green links also enables adaptation to a changed climate.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 7 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?	+-	+-	+ -	The Preferred Option's focus on commercial development likely to lead to some increase in people and properties being affected by flood risk. However good quality design and appropriate drainage are essential to mitigate against any risk. Overall a mixed score is given bearing in mind the potential extra people and property at risk.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	?	?	+	The Preferred Option is likely to have more beneficial effects in the medium to longer term, as national requirements for all types of development to be water efficient will be in place. The use of SUDS where applicable should be used as mitigation as it would assist with groundwater replenishment.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 9 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? 	+	++	++	The Preferred Option's focus on commercial development would ensure efficient use of brownfield land in the city centre. In the longer term, high density development in the city centre would enable the economies of scale to allow efficient systems to be established for sustainable waste, energy and materials use. It would enable the majority of new housing to be in sustainable urban extensions making efficient use of resources, particularly being able to make best use of decentralised energy resources.
SOCIAL					

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	The employment aspects of the policy, coupled with the aim to increase access to and from the city centre will incrementally help in reducing poverty and social exclusion. It is important that a variety of jobs are provided to give opportunities for people at different skills levels and that training is provided.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	++	++	General access improvements will have several positive externalities. The emphasis on walking and cycling links to the open countryside will provide people with greater opportunities for healthy lifestyles. The policy requires provision of appropriate services including health care provision. In addition, economic proposals will help (since, in general, the more affluent people are, the better their health).
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	++	++	The policy promotes educational development. There is likely to be expansion at the Art College, Financial Skills College and City College (close to the city centre). These benefits will mainly be seen in the medium to long term.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+	+	+	The option provides for housing provision which can be delivered from day one. Location and proximity to services and employment will mean housing development will be sustainable.
SOC 5 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?	+	+	+	The policy promotes the creation of mixed communities by requiring a mix of housing, including family housing, in the city centre. This mixed use development, with a focus on leisure and culture, will help to promote a vital and vibrant city centre Improvements to the public realm and all new development should embrace crime and disorder reduction measures. It is important that leisure developments are designed and located to reduce alcohol based crime.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	++	++	++	Employment provision in the policy will address both the issue of unemployment (ie creating new jobs) and also looks to the "high end" type industries

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	++	++	The policy specifically mentions the aim of promoting high quality developments with good open spaces and an improved public realm which should create an improved living environment for local residents.
SOC 8 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? 	+	++	++	Access to services and facilities are specifically addressed in the policy by promoting mixed use development. By locating such facilities in the city centre, they are accessible to the maximum number of people. The policy emphasises walking, cycling and public transport and wider access issues. The redevelopment of Anglia Square particularly will increase access of many city centre residents to everyday shopping facilities.
ECONOMIC					
EC 1 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? 	+	++	++	All of these issues are addressed in the preferred option. It promotes a more diverse economy which should therefore be more resilient to any economic downturns. It also promotes development of economic sectors, such as information technology, which are likely to grow.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 2 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? Will it support / encourage small city businesses? 	+	+	+	The policy promotes economic development in the most sustainable and location in GNDP area. The city centre has the highest profile as a business location and is therefore the most likely place to attract inward investment in the sub region. Public transport measures will give the potential to secure this. It will have uncertain effects on rural diversification.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+	+	+	See ENV1.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	++	++	++	The policy promotes economic development in the most sustainable and accessible location in the GNDP area, on brownfield sites and is therefore likely to have the most positive impact on the environment.

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

POLICY OPTION: Preferred Option - Commercial and Cultural Led Development

Environmental Impacts	The Preferred Option co-locates employment, services and housing thus reducing the need to travel and focuses employment and services development in the most sustainably accessible location in the sub-region. Environmental benefits will be cumulative as removal of through traffic from the city centre and further promotion of sustainable transport schemes will be enabled in the medium to long term by completion of Northern Distributor Road and the implementation of bus rapid transit systems.						
Social Impacts The policy promotes the creation of mixed communities by requiring a mix of housing, including family housing, in the city centre. This mixed use development, with a focus on employment, leisure and culture, will help to promote a vital and vibrant city centre. Social inclusion and increased employment opportunities should result. Improvements to the public realm and all new development should embrace crime and disorder reduction measures.							
Economic Impacts	onomic Impacts The Preferred Option promotes a more diverse economy that should therefore be more resilient to any economic downturns. It also promotes development of economic sectors, such as information technology, which are likely to grow. The policy promotes economic development in the most sustainable and location in GNDP area. The city centre has the highest profile as a business location and is therefore the most likely place to attract inward investment in the sub region, although investment here could slow growth elsewhere.						
		The Preferred Option is the most sustainable option. The assessment has identified a range of positiveeconomic, social and environmental effects, and not identified any significant negative effects. It co-locates employment, services and housing thus reducing the need to travel and focuses employment and services development in the most sustainably accessible location in the sub-region. It is important that a variety of jobs are provided to give opportunities for people at different skills levels and that training is provided. Implementation is the keys to extracting greatest benefit from many developments, in this regard tools such as Conservation Area Appraisals, high quality design; expansion of higher educational opportunities; decentralised energy resources; and the redevelopment of Anglia Square will be key.					

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: City Centre Rejected Option 1 - Housing led development

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL				1	
ENV 1 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?	-			This option would lead to significant housing development at the expense of commercial development. As a result there would be less employment provision in the city centre and greater out -of- town development. This would generate the need for more journeys, promote reverse commuting and less sustainable transport movements in general. This is because employment would be focussed on a larger number
	Will it encourage more benign modes of travel?	-			of sites that would therefore be less able to be serviced effectively by public transport. This unsustainable pattern would be exacerbated over
	Will new development be located such to reduce the need for people to travel?				time.
ENV 2 To improve the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	N	+	+	The main effects on water quality and therefore habitats and species result from improvements to

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
quality of the water environment	Will it help to support wetland habitats and species?				water treatment at sewage works which is scheduled by Anglian Water for the medium term. The choice of different options would be unlikely to affect this.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	-			The unsustainable movements this option would generate identified in comments on ENV1 would worsen air quality in the city centre.
ENV 4 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? 	+	++	++	The housing option would enable similar improvements to open spaces and linkages to the Preferred Option. Therefore it would benefit biodiversity and geodiversity.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	+	++	++	The Housing Option would promote redevelopment of brownfield sites. Housing led development would also have to ensure enhancement of historic assets and archaeological protection.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?	+ -	+ -	+ -	Policies elsewhere in plan require development to be adapted to and to mitigate against climate change. Focus on housing could lead to increase in CO2 emissions by promoting less sustainable travel patterns. Housing led development would, however, enable area wide sustainable energy schemes to be incorporated. Likely focus on open spaces and green links would also enable adaptation to a changed climate.
ENV 7 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?	+ -	+ -	+ -	Greater focus on housing likely to lead to more people being affected by flood risk, although with good quality design possible to mitigate against risk, including the use of SUDS in implementation. A mixed score is given bearing in mind these aspects.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	+	+	+	The option is likely to have the most beneficial effects of the 3 options in the short term as national requirements for housing development to be water efficient will be in place ahead of those for other types of development.

ENV 9 Will it minimise consumption of materials and resources? + - + - + - The focus on housing development would ensure efficient use of brownfield land in the city centre. It would also reduce greenfield land take for housing. High density housing development in the city centre is would also reduce greenfield land take for housing. Will it use land efficiently? Will it use land efficiently? High density housing development in the city centre would ensure efficient systems to be established for sustainable waste, energy and materials use. Will it avoid the loss of good quality agricultural land and preserve soil resources? Will it minimise energy consumption and promote energy efficiency? The consequent need for the majority of employment to be in less out-of town sites would support the use of decentralised energy sources, but would also lead to less sustainable patterns of commuting. It would not lead to less sustainable waste and energy processes. Will it lead to less waste being produced? Will it lead to less waste being disposed, by promoting more recycling and composing? Will it increase waste recovery for other means eg. energy generation?	SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
	To make the best use of resources, including land and energy, and to minimise waste	 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 	+ -		+ -	 efficient use of brownfield land in the city centre. It would also reduce greenfield land take for housing. High density housing development in the city centre would enable the economies of scale to allow efficient systems to be established for sustainable waste, energy and materials use. The consequent need for the majority of employment to be in less out-of town sites would support the use of decentralised energy sources, but would also lead to less sustainable patterns of commuting. It would not lead to mixed uses, which are the best means of supporting sustainable waste

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	+	Provision of housing, particularly affordable housing, will help in reducing poverty and social exclusion by co-locating jobs and housing.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	++	++	General improvements associated with housing development would have positive benefits in terms of access to health services and the opportunity for healthy lifestyles through the provision of green infrastructure.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	-			This option would not explicitly promote educational development as it focuses on housing development.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+	+	+	The option provides for extensive housing provision. The location and proximity to services and employment would be positive. However, with a limited mix of uses employment opportunities would be somewhat limited and vital, vibrant and therefore sustainable communities are less likely to be created.
SOC 5 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? 	+ -	+ -	+ -	The option would promote socially mixed communities, but would be unlikely to help to promote a vital and vibrant city centre due to the primary focus on housing.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	-			The focus of this option on housing is likely to lead to a reduction in the economic appeal of the city centre for employers. As a consequence, a disparity between employment provision and numbers of residents would occur, raising unemployment.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings?Will it improve the quality of local open space?Will it improve the satisfaction of people with their neighbourhoods?	+	++	++	All housing should promote high quality developments with good open spaces and an improved public realm. This should create an improved living environment for local residents. However a mixed-use scheme could have similar effects.
SOC 8 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? 	-	-	-	Since the option provides for extensive housing development a more limited amount of services and employment opportunities would be provided.
	Will it excits in strengthening the local economy?			1	The much focus on housing and insufficient on
EC 1 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? 	-	-		Too much focus on housing and insufficient on commercial development in the city centre will affect the city centre's role as the economic hub of the sub-region. This runs the risk of making the area vulnerable to economic downturns, as new and varied businesses will not be promoted. Only by adopting a more economic orientated approach could this be addressed.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 2 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? Will it support / encourage small city businesses? 	-	-		See EC1
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	-			See ENV1.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	-	-	-	Since the option promotes housing rather than economic development in the most sustainable location in GNDP area, it will not have a beneficial mixed impact on the environment. It will also threaten the viability of some city centre businesses.

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?							
POLICY OPTION: Rejected Option 1 - Housing led development							
Environmental Impacts The focus on housing development would ensure efficient use of brownfield land in the city centre. It would also reduce greenfield land take for housing. However, the consequent need for the majority of employment to be in less out-of town lead to less sustainable patterns of commuting.							
Social Impacts	Social Impacts The option provides for extensive housing provision. The location and proximity to services and employment of this housing would be positive and this approach would reduce homelessness and problems of affordability of housing. However, with a limited mix of uses employment opportunities would be somewhat limited and vital, vibrant and therefore sustainable communities are less likely to be created.						
Economic Impacts		n housing and insufficient on commercial development in the city centre will affect the city centre's role as the economic gion. This runs the risk of making the area vulnerable to economic downturns as new and varied businesses will not be					
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		 The housing led option has both positive and negative aspects, the most significant elements are; Positive aspects: ensure efficient use of brownfield land in the city centre with local service provision reduction in housing pressures Negative aspects Threaten economic viability of economic hub of sub region Cause less sustainable movement patterns with relocation of employment to out-of-centre sites 					
		If this option were to be taken up, it would be necessary to have mitigation. This should ensure there is an appropriate mix of housing and commercial development to support economic success and reduce the need to travel					

Joint Core Strategy Preferred Options: Sustainability Appraisal Framework

Option Appraised: City Centre Rejected Option 2 – Market led development

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL		I		1	
ENV 1 To reduce the effect of traffic on	raffic on		 Taking no strategic planning policy approach and allowing market forces to dictate would lead to: an increase in private vehicle use and 		
the environment.				 congestion; poorer sustainable transport provision and use; 	
	Will it reduce the effect of HGV traffic on people and the environment?				 uncertain outcomes in terms of location of development – in the short term unsustainable out-of town development is likely, though in the longer term the commercial viability of such development is
	Will it encourage more benign modes of travel?				
	Will new development be located such to reduce the need for people to travel?]			difficult to assess
ENV 2	Will it improve the quality of the water environment	N	+	+	The option is likely to have more beneficial effects in
To improve the	(streams, rivers, lakes etc)?				the medium to longer term as national requirements

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
quality of the water environment	Will it help to support wetland habitats and species?				for all types of development to be water efficient will be in place. The main effects on water quality and therefore habitats and species result from improvements to water treatment at sewage works – the choice of different options would be unlikely to affect this.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	-			Increased congestion resulting from a market led approach and lack of support for sustainable transport solutions would worsen air quality and increase pollution.
ENV 4 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? 	-			This option would be very unlikely to provide improvements to open spaces and linkages to the open countryside. Therefore it would not biodiversity and geodiversity and unregulated growth would be likely to threaten habitats.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	-			The market led option would promote redevelopment of brownfield sites, though such development would be less likely to ensure enhancement of historic assets and archaeological protection.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	-	_	_	Policies elsewhere in plan require development to be adapted to and to mitigate against climate change. Focus on market led development could lead to increase in CO2 emissions by promoting less sustainable travel patterns. Market led development would promote high density development, thus enabling area wide sustainable energy schemes to be incorporated. Less likely to promote open space to offset effects of climate change.
ENV 7 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 types of development would have to meet PPS25 requirements. Market led development less likely to provide adequate SUDs provision.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	Ν	?	?	The option is likely to have more beneficial effects in the medium to longer term, although this will depend more on the national requirements for all types of development to be water efficient will be in place.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 9 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? 	+ -			Dependent on changing market conditions over time, following this option is likely to lead to significant development in the city centre making good use of brownfield sites whilst market forces support this approach. However, such development is unlikely to provide the necessary infrastructure to make the best use of resources, such as sustainable transport, energy and waste supplies and treatment. There is also the potential for certain types of development, such a some types of offices, to reject the city centre in favour of out-of-town locations. This would lead to less sustainable outcomes.
SOCIAL					

SA Objective	Decision making criteria	Short- Term	Mediu m	Long- Term	Comments / Justification Inc. cumulative effects
		0-5 yrs	Term	20+ yrs	
			5-20 yrs		
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively?	?	?	?	This approach is likely to promote high density employment and housing growth and could therefore likely to reduce deprivation. However, as such growth would be unplanned, there may not be improved access to a variety of employment and services and social exclusion could be accentuated.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	-			The option would not provide health and green infrastructure available to all.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	-			This option would not promote educational development.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	?	?	?	Outcomes in terms of housing provision are uncertain, though with no planning framework it is unlikely that a range of housing types and tenures would be provided.
SOC 5 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?	-	-	-	Market bases solutions are unlikely to create mixed communities. Socially divided communities are likely to increase crime rates.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	+ -	+ -	+ -	This option is likely to create new employment opportunities, but is unlikely that a wide spectrum would be provided and an increase in unemployment may result.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	-	-	-	Little linked open space is likely to be provided without a strategic framework.
SOC 8 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? 	-	-	-	This approach is likely to promote high density employment and housing growth. However, as such growth would be unplanned, there may not be improved access to a variety of services and employment for all and without strategic planning dependency on the private car is likely to increase.
ECONOMIC				•	
EC 1 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? 	+ -	+ -	+-	This approach is likely to promote high density employment growth and is therefore likely to promote the local economy. However, as such growth would be unplanned, there may not be improved access to a variety of employment and services and social exclusion could be accentuated. Small businesses are less likely to be able to start up without support. Unplanned and unbalanced economic growth is more likely to be prone to economic shocks.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 2 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? Will it support / encourage small city businesses? 	+ -	+ -	+-	See EC1
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	-			See ENV1.

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	-	-	-	The option would have a be likely to have a negative effect as environmental concerns would not be addressed without a planning framework.

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

• POLICY OPTION: Rejected Option 2 – Market led development

Environmental Impacts	Increased congestion resulting from a market led approach and lack of support for sustainable transport solutions would worsen environmental problems associated with congestion. This approach would not provide the environmental benefits associated with planned development such as improved green spaces.					
Social Impacts	The market lead approach is likely to promote high density employment and housing growth and is therefore likely to reduce deprivation for some. However, as such growth would be unplanned, there may not be improved access to a variety of employment and services and social exclusion could be accentuated. Market bases solutions are unlikely to create mixed communities - socially divided communities are likely to increase crime rates.					
Economic Impacts	This approach is likely to promote high density employment growth and is therefore likely to promote the local economy. However, as such growth would be unplanned, there may not be improved access to a variety of employment and services. Unplanned and unbalanced economic growth is more likely to be prone to economic shocks.					
Overall summary: Impacts Possible mitigation measures Recommended further research Considering cumulative impacts		The market lead option is the least sustainable option for the city centre. It does not support sustainable development. It is likely to have largely negative environmental and social effects – though some positive economic benefits are likely to result but other disbenefits outweigh these. Not surprisingly the best way to mitigate some of the worst excesses would be to properly plan for the growth anticipated.				

Implementation and Monitoring

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Option Appraised:

(A) Comprehensive tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), set at a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development.

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 a	oplicable to this option	

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL ENV 1 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? 	+	++	++	Benefits of comprehensive tariff approach capturing majority of development in GNDP will have a positive effect on the objective as contributions will be captured over time as large-scale developments are implemented. Contributions will be able to be pooled which will enable larger public transport and highway schemes to be provided alongside development. This will have a significant positive cumulative effect on the provision of infrastructure over time as quantum of funds available increases.
ENV 2 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?	?	?	?	There is the possibility that some development, individually or cumulatively, will impact upon the water environment. A tariff-based approach might account for possible effects and provide funds for avoidance and mitigation. Alternatively, it might not,

					meaning that there are no funds available to protect the water environment.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+	+	+	The option will have a positive impact on the objective, as a tariff approach will be utilised to improve public transport provision, which will help to reduce emissions of pollutants from private vehicles. This positive effect could be further enhanced depending on what the proportions of contributions to be spent on public transport are.
ENV 4 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? 	+	+	+	Will have a positive effect on the objective, as funds secured will enable spending on the implementation of the Green Infrastructure Strategy. A tariff-based approach is well suited to funding strategic schemes.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	Option will have an uncertain effect as approach may make the redevelopment of brownfield sites less attractive. The testing of viability through an 'open book' approach will be used.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to adapt and mitigate against the impacts of climate change.
ENV 7	Will it minimise the risk of flooding to people and property?	?	?	?	Option will have an uncertain effect on this objective

To avoid, reduce and manage flood risk.	Can it incorporate new designs to adapt to possible flood risk? Will it promote the use of sustainable drainage systems to				as it is not known as to what extent of tariff revenues would be spent on projects that may help to reduce the risk of flooding.
	reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	
ENV 9 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? 	?	?	?	This option has an uncertain effect on this objective. The ability to bring forward previously developed land will depend on how viability testing (i.e. are they financially viable) of contaminated brownfield sites is applied. Therefore, the ability of the approach to minimise the loss of greenfield land may be compromised.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels?	+	+	++	Improved social facilities provided through tariff funding will have a positive impact on the objective as facilities will make a positive contribution to reducing deprivation. The positive impact will

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SOC 2	Will it help meet the needs of residents most effectively?				increase over time as more funding is collected and additional facilities are secured.
To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	++	++	++	The policy option will have a significant positive effect on this objective as a comprehensive tariff approach will support the provision of new health facilities as well as green infrastructure, which will provide facilities to encourage healthy lifestyles.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	++	++	The policy option will have a significant positive effect on this objective as a comprehensive tariff approach will collect contributions that will be spent on educational facilities, such as new schools. In addition, the comprehensive tariff approach will provide more scope for contributions to be collected from employers than would be able under existing approaches.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	?	+	+	The proposals for a tariff approach recognize the possibility of Housing Corporation funding. If this is available, a higher proportion of affordable homes, and particularly homes for rent, could be provided while still securing funds for other infrastructure. The Government's current proposals for a community infrastructure Levy (similar to a tariff) are that affordable housing should be provided through site by site agreements under section 106. However such agreements affect the value of the land concerned and the level of tariff which could reasonably be a sought.
SOC 5 To build community	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and	+	+	+	Comprehensive tariff approach will have a positive effect by providing for community facilities. In addition, the approach may secure funds to enable

identity, improve social welfare, and reduce crime and anti-social activity.	balanced community? Will it reduce actual levels of crime? Will it reduce the fear of crime?				spending on community support officers and police infrastructure.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?	N	N	+	Option may have a positive effect in the long term as tariff funds are spent on training.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Option will have a positive impact on the objective as tariff and S106 funds will be spent on new open space as well as improvements to existing open space.
SOC 8 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? 	+	+	++	Option will have a positive effect, rising to a significant positive effect over time as funds collected through a tariff approach build up. This will increase the available funds to spend on public transport provision and increasing accessibility which will help to reduce dependency on the private car.
ECONOMIC					
EC 1 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? 	?	?	?	Option will have an uncertain effect on objective as levels of contributions sought will vary in surrounding areas (such as neighbouring authorities) and may impact on the choice of locations that businesses wish to locate. This may harm the competitiveness of employment locations within the plan area.
EC 2 To encourage	Will it encourage indigenous businesses? Will it encourage inward investment?	+-	+-	+-	Option will have mixed effects as tariff approach will aid certainty for the development industry over level

and accommodate both indigenous and 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? Will it support / encourage small city businesses? 				of contributions to be sought. However, potential negative effects may arise if costs increase over and above other approaches.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+	+	+	Approach will help to secure funding for public transport provision as well as other communications infrastructure. This will have a positive effect on the objective.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N/a	N/a	N/a	

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

 POLICY OPTION: Comprehensive tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), set at a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development.

Environmental Impacts	Pooled contributions can help to fund strategic infrastructure. Option has an uncertain effect on ENV2, 5, 6, 7 & 9. This is due to the fact that the impact against the objective can only be determined if it is known more precisely as to what funds will be spent on. Therefore, the approach could have a more positive or negative impact on environmental objectives.				
Social Impacts	Significant potenti	al positive impact as tariff funds might provide for community, healthcare, education and green infrastructure. longer term.			
Economic Impacts	Tariff aids certainty for businesses, however costs may be greater on an individual basis than for other alternative approaches (such as S106 only). Therefore, the effects in this case are mixed.				
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		Although the impact against a number of the SA objectives is uncertain, these could be positive depending on what the specific form of infrastructure to be provided for in the tariff actually is. However, in sustainability terms, a comprehensive tariff approach performs well against the environmental and social objectives, as there will be greater scope to provide additional facilities than through planning obligations alone. This is also due to the fact that the tariff approach will secure monies for infrastructure from the types of development that a S106 would not allow for, as it will take a more strategic view of necessary improvements across a wide area.			

Option Appraised:

(B) Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Reduced tariff rate would be applied to brownfield sites to account for contamination issues.

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 1 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? 	+	+	+	Comprehensive tariff approach will capture contributions from the majority of development in GNDP which will have a positive effect on the objective. This is because contributions are captured over time as large-scale developments are implemented. Contributions will also be able to be pooled which will enable larger public transport and highway schemes to be provided alongside development. This will have a positive cumulative effect on the provision of infrastructure over time. However, the cumulative effects will remain consistent due to the number of sites that will be excluded from making contributions.
ENV 2 To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	?	?	?	There is the possibility that some development, individually or cumulatively, will impact upon the water environment. A tariff-based approach might

water environment	Will it help to support wetland habitats and species?				account for possible effects and provide funds for avoidance and mitigation. Alternatively, it might not, meaning that there are no funds available to protect the water environment.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	N	+	+	The option will have a positive impact on the objective in the medium and long term as a tariff approach will be utilised to improve public transport provision, reducing the impact of emissions from private vehicles. The positive effect could be enhanced further depending on what the proportions of contributions to be spent on public transport are. However, the effect may be neutral in the short term as funds will take more time to accumulate due to sites being exempt.
ENV 4 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	+	+	Will have a positive effect on the objective as funds secured will enable spending on the implementation of the Green Infrastructure Strategy. However, the effect is likely to be neutral in the short term as contributions will accrue more slowly due to number of sites exempt.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+	+	+	Option is likely to have a positive effect on the objective as the approach will increase the attractiveness of developing previously-developed land due to reduced level of contributions sought.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to adapt and mitigate against the impacts of climate change.

	effects of climate change?				
	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to reduce the risk of flooding.
ENV 8	Will it conserve groundwater resources?	N/A	N/A	N/A	
To provide for sustainable use and sources of water supply.	Will it minimise water consumption?				
ENV 9 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? 	+	+	+	Option will have a positive effect on this objective as a discounted tariff for previously-developed sites will help to ensure these are brought forward for development, thereby helping to minimise the loss of greenfield land.

SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	Ν	+	+	Improved facilities provided through tariff funding will have a positive impact on the objective as improved facilities will make a positive contribution to reducing deprivation. However, the effect will be neutral in the short term as amount of funds captured from brownfield windfall sites coming forward will be limited.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	+	+	The policy option will have a positive effect on the objective as a comprehensive tariff approach will support the provision of new health facilities as well as green infrastructure. However, the effect would have been significantly positive but for the number of developments that are excluded.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	N	+	+	The policy option will have a positive effect on this objective as a comprehensive tariff approach will collect contributions that will be spent on new educational facilities, such as schools. In addition, the comprehensive tariff approach will provide more scope for contributions to be collected from employers. However, the effect is not significantly positive due to the number of developments excluded which will impact on the total of funds collected.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	Will it increase the range of types, sizes and affordability of housing for all social groups?Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?	?	+	+	The proposals for a tariff approach recognize the possibility of Housing Corporation funding. If this is available, a higher proportion of affordable homes, and particularly homes for rent, could be provided while still securing funds for other infrastructure. The Government's current proposals for a community infrastructure Levy (similar to a tariff) are that affordable housing should be provided through site by site agreements under section 106. However

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	Will it make best use of existing housing stock?				such agreements affect the value of the land concerned and the level of tariff which could reasonably be a sought. A reduced tariff on previously developed land should ensure that contributions for affordable housing can be maintained
SOC 5 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	+	+	Comprehensive tariff approach will have a positive effect in the medium and long term by providing for community facilities. In addition, the approach may secure funds to enable spending on community support officers and police infrastructure. However, the short term effect is neutral due to the excluded developments slowing down rate of funding accumulation.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	N	Ν	N	Number of sites excluded will reduce amount of contributions collected and may therefore marginally assist the viability of some employment generating development. However, effects on this objective are likely to be neutral or insignificant.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	Ν	+	+	Option will have a positive impact on the objective as tariff and S106 funds will be spent on new open space as well as improvements to existing open space. However, the short term effect is neutral due to the number of excluded developments slowing down the rate of accumulation of funds.
SOC 8 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? 	Ν	Ν	+	Option will have a neutral effect in the short and medium term as the approach will result in a more limited ability to gather funds as short term sites are likely to be brownfield windfalls.
ECONOMIC					
EC 1 To encourage sustained economic growth.	Will it assist in strengthening the local economy? Will it improve business development and enhance competitiveness?	?	?	?	Option will have an uncertain effect on objective as levels of contributions sought will vary in surrounding areas (such as neighbouring authorities) and may impact on the choice of

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	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?				locations that businesses wish to locate. This may harm the competitiveness of employment locations within the plan area.
EC 2 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? Will it support / encourage small city businesses? 	+	+	+	Option will encourage small city businesses as majority of these will be operating from existing sites (brownfield). This approach will enable them to expand and adapt without having to pay any tariff contributions.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	N	+	+	Approach will help to secure funding for public transport provision as well as other communications infrastructure. This will have a positive effect on the objective. The approach will result in a more limited ability to gather funds as short term sites are likely to be brownfield.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? Will it attract new investment and skilled workers to the area? Will it maintain existing business and employment provision? 	n/a	n/a	n/a	

Will it provide employment in the best locations to serve urban and rural residents?					
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POLICY OPTION: Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Reduced tariff rate would be applied to brownfield sites to account for contamination issues.

Environmental Impacts	This is particularly	Option will have positive environmental impacts, due to the nature and types of infrastructure that can be delivered through a tariff approach. This is particularly notable in relation to strategic infrastructure which might include green infrastructure, strategic transport and securing the redevelopment of previously-developed land.							
Social Impacts	Social Impacts Social infrastructure could be improved as new community facilities will be provided to support strategic scale growth, as well as enabling tariff funds to be spent on educational facilities and open spaces and recreation. The effects will be broadly similar to those associated with Option A, although this option will result in less money available in the short-term, but wil promote brownfield development, which will have other associated benefits.								
Economic Impacts	expand and encou	nall businesses within the urban area due to their exclusion from contributions. This will help such businesses to continue to irage inward investment. The approach will also enable funds to be spent on strategic infrastructure which might include to strategic employment areas.							
		Option is more likely to have neutral effect against SA objectives in the short term as approach reduces contributions from brownfield sites that will come forward in the short term before major allocations have commenced. This will slow up the rate of contributions collected due to the number of sites that would be excluded. However, a tariff approach will widen the scope of what contributions can be collected from, and spent on. This will have positive cumulative impact upon objectives to maintain health of the whole population, encourage inward investment, and maintain landscapes and the historic environment by enabling increased spending where this was not previously possible.							

Option Appraised:

(C) Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Reduced tariff rate would be applied to sites in the rural areas (outside the NPA) to account for lower land values affecting viability of development.

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	pplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENV 1 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? 	+	++	++	Benefits of tariff approach capturing majority of development in GNDP will have a positive effect on the objective as contributions will be captured over time as large-scale developments are implemented. Contributions will be able to be pooled which will enable larger public transport and highway schemes to be provided alongside development. This will have a significant positive cumulative effect on the provision of strategic transport infrastructure over time as quantum of funds available increases.
ENV 2 To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	?	?	?	There is the possibility that some development, individually or cumulatively, will impact upon the water environment. A tariff-based approach might

water environment	Will it help to support wetland habitats and species?				account for possible effects and provide funds for avoidance and mitigation. Alternatively, it might not, meaning that there are no funds available to protect the water environment. However, if tariff levels where reduced outside the NPA, the amount available for such mitigation might be reduced.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+	+	+	The option will have a positive impact on the objective as a tariff approach will be utilised to improve public transport provision. The positive effect could be enhanced further depending on what the proportions of contributions to be spent on public transport are.
ENV 4 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? 	+	+	+	Will have a positive effect on the objective as funds secured will enable spending on the implementation of the Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	Option will have an uncertain effect as approach may make the redevelopment of brownfield sites, particularly in the urban area, less attractive.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to adapt and mitigate against the impacts of climate change.

	Will it ensure that the risks to lives, land and property are minimised?				
ENV 7 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?	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to reduce the risk of flooding.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	
ENV 9 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? 	?	?	?	Option will have an uncertain effect on this objective as is dependent on the form of development of sites coming forward in the rural area, and the land status. To a marginal extent, compared to option A, it might promote development outside the NPA which could be less sustainable if the development in question were simply meeting needs displaced from the NPA, and a more dispersed form of development might increase the impacts of traffic. however it may also make use of some previously developed land in villages and market towns
SOCIAL					
SOC 1	Will it reduce poverty and social exclusion in those areas	+	+	++	Improved facilities provided through tariff funding will

To reduce poverty and social exclusion.	most affected? Will it help to reduce deprivation levels? Will it help meet the needs of residents most effectively?				have a positive impact on the objective as improved facilities will make a positive contribution to reducing deprivation. The effect will increase over time as more funding is collected and additional facilities are secured.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	+	+	++	The policy option will have a significant positive effect on this objective as a comprehensive tariff approach will support the provision of new health facilities as well as green infrastructure. However, funds may take longer to accumulate due to exclusions.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	+	++	The policy option will have a positive effect on this objective similar to that of a comprehensive tariff approach in the short and medium term, increasing to a significant positive effect in the long term as funding builds up. The policy approach will collect contributions that will be spent on educational facilities, such as new schools. However the Reduced level of tariff outside the NPA would mean less funds would be collected and with the comprehensive tariff approach outlined in option A
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	?	+	+	The proposals for a tariff approach recognize the possibility of Housing Corporation funding. If this is available, a higher proportion of affordable homes, and particularly homes for rent, could be provided while still securing funds for other infrastructure. The Government's current proposals for a community infrastructure Levy (similar to a tariff) are that affordable housing should be provided through site by site agreements under section 106. However such agreements affect the value of the land concerned and the level of tariff which could reasonably be a sought. A reduced tariff outside the

					NPA should help to ensure that affordable housing contributions can be maintained in this area, but will not help in the NPA which is the area of greatest affordable housing need.
SOC 5 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? 	+	+	+	Tariff approach will have a positive effect on the objective by providing for community facilities. In addition, the approach may secure funds to enable spending on community support officers and police infrastructure.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	Ν	Ν	+	Option may have a positive effect in the long term as tariff funds are spent on training.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Option will have a positive impact on the objective as tariff and S106 funds will be spent on new open space as well as improvements to existing open space.
SOC 8 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? 	+	+	++	Option will have a positive effect, rising to a significant positive effect over time as funds collected through a tariff approach build up. This will increase the available funds to spend on public transport provision and increasing accessibility which will help to reduce dependency on the private car.
ECONOMIC					
EC 1 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?	?	?	?	Option will have an uncertain effect on objective as levels of contributions sought will vary in surrounding areas (such as neighbouring authorities) and may impact on the choice of locations that businesses wish to locate. This may harm the competitiveness of employment locations

	Will it promote growth in key sectors? Will it increase vitality & viability of town centres and improve economic diversity?				within the plan area. However, the approach may enhance employment development in the market towns compared to development in the NPA.
EC 2 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? Will it support / encourage small city businesses? 	+-	+ -	+ -	Option will have a positive effect on rural diversification schemes as these will be subject to reduced rates. However, there may be a negative effect on development within the NPA, particularly on the fringes of the policy area, as there may be some issues of competition between sites.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+	+	+	Approach will help to secure funding for public transport provision as well as other communications infrastructure. This will have a positive effect on the objective by reducing journey times to work.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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 	n/a	n/a	n/a	

urban and rural residents?

• POLICY OPTION: Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Reduced tariff rate would be applied to sites in the rural areas (outside the NPA) to account for lower land values affecting viability of development.

Approach will enable contributions to be pooled to deliver strategic improvements, for example to promote non-car modes of transport or green infrastructure. However, many of the effects against environmental objectives are uncertain as it is not possible to determine what specific measures tariff funds will be spent on. The reduction in funds collected likely to result from a reduced tariff outside the NPA might reduce these positive benefits compared with option A. If this option was to result in some development being relocated outside the NPA as result of lower tariff, it might result in a marginally less environmentally sustainable pattern of development. Improved community and healthcare facilities would be within the scope of a tariff approach. This would have a positive effect on reducing							
Social Impacts Improved community and healthcare facilities would be within the scope of a tariff approach. This would have a positive effect on reducing deprivation, which is a key social objective. A tariff could also be used to improve education infrastructure as well as accessibility. The reduction in funds collected likely to result from a reduced tariff outside the NPA might reduce these positive benefits compared with option <i>i</i>							
Economic Impacts	Uncertain effects as exclusions from tariff may make development in NPA (particularly fringes) less attractive than sites outside. This is particularly notable where there will be issues of competition between sites, particularly for smaller businesses.						
Overall summary: Impacts Possible mitigation Recommended fur Considering cumu	ther research	The option performs well against the environmental objectives as contributions from a tariff approach would be spent on green infrastructure and provide contributions to public transport. However, the impacts are in many cases uncertain as it will be dependent on the precise spending of tariff funds as to what the actual impact might be. The option has a positive effect against social objectives as tariff approach will support provision of health, community facilities and other social infrastructure. There are still a number of uncertainties as the precise nature of any impact is dependent on what funds generated are spent on. The option does result in a mixed effect against economic objective EC2, as there may be issues of competitiveness between sites in and out of the NPA.					

Option Appraised:

(D) Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Tariff would exclude taking contributions from public buildings (incl. schools, libraries)

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL		-	-	-	
ENV 1 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? 	+	++	++	Benefits of comprehensive tariff approach capturing majority of development in GNDP will have a positive effect on the objective as contributions will be captured over time as large-scale developments are implemented. Contributions will be able to be pooled which will enable larger public transport and highway schemes to be provided alongside development. This will have a significant positive cumulative effect on the provision of infrastructure over time as quantum of funds available increases. This will help to ease traffic flow and encourage benign modes of travel.
ENV 2 To improve the quality of the	Will it improve the quality of the water environment (streams, rivers, lakes etc)?	?	?	?	There is the possibility that some development, individually or cumulatively, will impact upon the water environment. A tariff-based approach might

water environment	Will it help to support wetland habitats and species?				account for possible effects and provide funds for avoidance and mitigation. Alternatively, it might not, meaning that there are no funds available to protect the water environment. However, if tariff levels where reduced for public/community buildings, the amount available for such mitigation might be reduced.
ENV 3 To improve environmental amenity, including air quality.	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	+	+	+	The option will have a positive impact on the objective as a tariff approach will be utilised to improve public transport provision. The positive effect could be enhanced further depending on what the proportions of contributions to be spent on public transport are.
ENV 4 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? 	+	+	+	Will have a positive effect on the objective as funds secured will enable spending on the implementation of the Green Infrastructure Strategy.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	Option will have an uncertain effect as approach may make the redevelopment of brownfield sites less attractive, although this will be dependant on the extent of use of open-book viability assessments.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change?	?	?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to adapt and mitigate against the impacts of climate change.

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ENV 7 To avoid, reduce and manage flood risk.	Will it minimise the risk of flooding to people and property?	?	0		
	Can it incorporate new designs to adapt to possible flood risk? Will it promote the use of sustainable drainage systems to		?	?	Option will have an uncertain effect on this objective as it is not known as to what extent of tariff revenues would be spent on projects that may help to reduce the risk of flooding.
	reduce run off?				
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	
ENV 9 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? 	?	?	?	This option has an uncertain effect on this objective as the ability to bring forward previously-developed land will be dependant on how viability testing is applied, and therefore, the ability to minimise the loss of greenfield land.

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SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	+	+	++	Improved facilities provided through tariff funding will have a positive impact on the objective as improved facilities will make a positive contribution to reducing deprivation. The effect will increase over time as more funding is collected and additional facilities are secured.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	++	++	++	The policy option will have a significant positive effect on this objective as a tariff approach will support the provision of new health facilities as well as green infrastructure.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+	++	++	The policy option will have a significant positive effect on this objective as a tariff approach will collect contributions that will be spent on educational facilities, such as new schools.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	?	?	?	The proposals for a tariff approach take into account Housing Corporation funding and suggest that the level of any tariff sought is adjusted accordingly.

SOC 5 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? 	+	+	+	Comprehensive tariff approach will have a positive effect by providing for community facilities. In addition, the approach may secure funds to enable spending on community support officers and police infrastructure.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?	N	Ν	+	Option may have a positive effect in the long term as tariff funds are spent on training.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Option will have a positive impact on the objective as tariff and S106 funds will be spent on new open space as well as improvements to existing open space.
SOC 8 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? 	+	+	++	Option will have a positive effect, rising to a significant positive effect over time as funds collected through a tariff approach build up. This will increase the available funds to spend on public transport provision and increasing accessibility which will help to reduce dependency on the private car.
ECONOMIC		-	-		
EC 1 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 	?	?	?	Option will have an uncertain effect on objective as levels of contributions sought will vary in surrounding areas (such as neighbouring authorities) and may impact on the choice of locations that businesses wish to locate. This may harm the competitiveness of employment locations within the plan area.

	improve economic diversity?				
EC 2 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? Will it support / encourage small city businesses? 	+-	+-	+-	Option will have mixed effects as tariff approach will aid certainty for the development industry over level of contributions to be sought. However, potential negative effects may arise if costs increase over and above other approaches.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+	+	+	Approach will help to secure funding for public transport provision as well as other communications infrastructure. This will have a positive effect on the objective.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N/A	N/A	N/A	

• POLICY OPTION: Option Appraised: (D) Set a more limited scope tariff approach to securing developer contributions towards infrastructure (based on Community Infrastructure Levy), with a minimal threshold (capturing development of 1dwelling or 100m2 of commercial space and above). The option would be supplemented by S106 agreements for affordable housing and other direct consequences of the development on the locality. Tariff would exclude taking contributions from public buildings (incl. schools, libraries).

		ble contributions to be pooled to deliver strategic improvements, for example to promote non-car modes of transport or							
Environmental	green infrastructure. However, many of the effects against environmental objectives are uncertain as it is not possible to determine what								
Impacts	specific measures	easures tariff funds will be spent on. The reduction in funds collected likely to result from community buildings are not being eligible							
•		reduce the amount collected, but conversely the provision of such facilities would incur correspondingly reduced cost and							
		t overall is likely to be negligible compared with option A.							
		nity and healthcare facilities would be within the scope of a tariff approach. This would have a positive effect on reducing							
Secial Imposto									
Social Impacts		is a key social objective. A tariff could also be used to improve education infrastructure as well as accessibility. The							
		collected likely to result from the exclusion of community buildings is likely to be offset by the lower cost of providing them,							
		mal difference in comparison with option A							
		pnomic impacts, there is likely to be little difference compared to option A, since options D and A do not differ in respect of							
Economic Impacts	commercial developments. Slightly less from that would be encountered where public/them unity buildings were developed, but conversely								
	these buildings wo	build be less costly to provide as a consequence. Thus the second RE effects on economic well being, namely the provision							
	of an attractive en	vironment for employees should not be seriously affected.							
		Although the impact against a number of the SA objectives is uncertain, these could be positive depending on what the							
Overall summary:		specific form of infrastructure to be provided is. However, in sustainability terms, a comprehensive tariff approach							
· · · · · · · · · · · · · · · · · · ·		performs well against the environmental and social objectives as there will be greater scope to provide additional facilities							
• Impacts		than through planning obligations alone. This is also due to the fact that the tariff approach will secure monies for							
Impacts		infrastructure from the types of development that a S106 would not allow for. The approach will also have a positive effect							
Possible mitigation									
• Recommended further research on the provision of healthcare, education, community facilities however this is likely to be at the expense									
Considering cumu	infrastructure such as highway improvements. The reduction in tariffs collected as a result of discounts for								
	-	public/community buildings is likely to be offset by the lower cost of providing these, resulting in little, if any, next							
		difference compared with option A.							

Option Appraised:

(E) Rely on contributions from S106 agreements only, with the timing of contributions dependent on when the infrastructure is to be provided.

SCORING SYSTEM:

				ive effects	-		ive effects +- Mixed effects
N Neutral / insig	nificant effects	?	Uncertain e	effects	Na	a Sustai	nability objective is not applicable to this option
SA Objective	Decision making criteria			Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL							
ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of travel Will new development be located such to for people to travel? 	using r eople avel? reduce	modes and the e the need	Ν	Ζ	Ν	Option would deal with the impact of new growth but not enhance it.
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water env (streams, rivers, lakes etc)? Will it help to support wetland habitats and			?	?	?	Depends on the location and whether there is a there is a direct consequence from the development.
ENV 3 To improve environmental amenity, including	Will it improve air quality? Will it reduce the emission of atmospheric	polluta	ants?	Ν	Ν	Ν	

air quality.					
ENV 4 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 enories? 	?	?	?	Effect is uncertain depending on the location and potential impact of the development.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 particular avoid harm to protected species? Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	Effect will depend on the viability of development as to whether vacant and derelict land will be reused.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	?	?	?	Nature of the effect will be dependant upon what specific infrastructure is required to make developments acceptable.
ENV 7 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?	N	N	N	Option will have a neutral effect as S106 agreements can only be used to mitigate direct impacts of development.
ENV 8 To provide for sustainable use	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	

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and sources of					
water supply. ENV 9 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? 	?	?	?	Option will have uncertain effect as impact will depend on precisely what infrastructure is secured through contributions.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?	+	+	+	Will have a positive impact on the objective by securing social housing from development.
	Will it help meet the needs of residents most effectively?				
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	Will it improve access to high quality health facilities?Will it encourage healthy lifestyles? How?Will it provide adequate health infrastructure for existing and new communities?	+-	+	+	Will have a positive impact as infrastructure such as cycleways can be secured as a consequence of development in tandem with the development. However the overall benefit is likely to be less than if a more strategic approach to the provision of sideways and pedestrian routes was promoted.

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	Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced?				
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	+/-	+/-	+/-	There will be a positive impact due to provision of new educational infrastructure, as well as key workers dwellings. However, reliance on section 106 agreements is likely to mean that some developments do not contribute compared with a plan wide tariff approach, reducing the funds available overall.Option may be mixed in short term as timing of provision may depend on trigger points (such as 50th dwelling), and may also be susceptible to changes in market conditions.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	+	+	+	Positive impact as contributions will be sought towards affordable housing. This will be provided more effectively as there will be fewer competing demands on contributions.
SOC 5 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?	+-	+	+	Option will have a positive impact, however in the short term the effects will be mixed as timing of provision of community facilities will depend on rate of delivery of schemes.
SOC 6 To offer more opportunities for rewarding and satisfying	Will it reduce unemployment overall? Will it help to improve earnings?	N/A	N/A	N/A	

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employment for all.					
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Will have a positive impact as contributions can be used to enhance open space, though the positive effect is likely to be less than if a more strategic approach to green infrastructure could be taken, for example using a comprehensive tariff.
SOC 8 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? 	+	+	+	Positive impact contributions can be sought for bus and cycle ways, though the positive effect is likely to be less than if a more strategic approach to green infrastructure could be taken, for example using a comprehensive tariff.
ECONOMIC					
EC 1 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? 	+-	+-	+-	Option will have a mixed effect on the objective as there will be competitiveness issues compared to a tariff approach. This might arise, for example, where a standard tariff charge were significantly more or less than the site specific costs which would be sort through a section 106 approach, and thus some developments might benefit all be penalized in comparison to a comprehensive tariff. Overall however the section 106 approach may harm economic growth as key strategic infrastructure would not be provided as effectively.
EC 2 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? Will it support / encourage small city businesses? 	+-	+-	+-	Option will have a mixed effect on the objective as there will be competitiveness issues compared to a tariff approach. This might arise, for example, where a standard tariff charge were significantly more or less than the site specific costs which would be sort through a section 106 approach, and thus some developments might benefit all be penalized in comparison to a comprehensive tariff. Overall however the section 106 approach may harm economic growth as key strategic infrastructure would not be provided as effectively.

					Small businesses may escape paying S106 contributions as their impact may be negligible.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	+-	+-	+-	Option will have mixed effects as only major economic development proposals will make contributions to journey to work services. Thus the section 106 approach would not deal so effectively as the tariff approach with the cumulative effects of a number of small developments.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N	Ν	N	

• POLICY OPTION: Rely on contributions from S106 agreements only, with the timing of contributions dependant on when the infrastructure is to be provided.

Environmental Impacts The effects are less likely to be beneficial than if a strategic approach was taken to utilizing developer contributions to maintain and enhance the environment.

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Social Impacts Positive impact on social objectives through the provision of affordable housing secured through legal agreements. Will have a positive on improving open space and other infrastructure, using contributions from development, but this is less likely to be provided in a more piecemeal way than using a comprehensive tariff approach to provide strategic infrastructure. In the case of larger items of infrastructure example schools, effects are mixed as the timing of infrastructure is dependant on the delivery of the development itself, which may no coincide with when infrastructure is needed if it is serving a wider purpose.							
Economic Impacts	Mixed effect due to competitiveness issues compared with other approaches (i.e Tariff). Approach will not capture any contributions from						
Overall summary:		Option results in considerable uncertainty against objectives, particularly over the timing of infrastructure. The approach offers limited opportunities to secure contributions towards strategic infrastructure, as contributions can only be sought to mitigate direct impacts of the development (in accordance with the principles set out in Circular 05/2005). The approach					
 Impacts Possible mitigation measures Recommended further research Considering cumulative impacts 		will also have neutral effect on a number of environmental objectives as using S106 approach can only require development to mitigate its own impacts. Furthermore, many smaller developments may well escape any payments, reducing the total amount of funds gathered to contribute to social and physical infrastructure. Therefore, the option has limited opportunities for a positive impact against a number of SA objectives, and has considerable uncertainty due to limited controls over when infrastructure secured is actually delivered.					

Option Appraised: (F) Infrastructure managed by a local infrastructure management body, set up by developers.

SCORING SYSTEM:

++	Very positive effects	+	Positive effects		Very negative effects	-	Negative effects	+-	Mixed effects
Ν	Neutral / insignificant effect	ts		?	Uncertain effects	Na	Sustainability objective is	not a	oplicable to this option

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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/A	N/A	N/A	Option will have a neutral impact on the objective as highway infrastructure will always be adopted by the public sector.
ENV 2 To improve the quality of the water environment ENV 3 To improve environmental amenity, including air quality.	 Will it improve the quality of the water environment (streams, rivers, lakes etc)? Will it help to support wetland habitats and species? Will it improve air quality? Will it reduce the emission of atmospheric pollutants? 	+ N/A	+ N/A	+ N/A	Assuming that infrastructure to protect the water environment does come forward, Option will have a positive impact on the objective as water environment would benefit from more frequent management than public bodies can provide for.
ENV 4	Will it conserve / enhance natural or semi-natural habitats,	+	+	+	assuming that infrastructure to protect the relevant

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To maintain and enhance biodiversity and geodiversity.	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?				environ mental assets does come forward, Option will have a positive impact on the objective as the proactive management of species and habitats is more beneficial than being left to chance.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	+/-	+/-	+/-	Option will have an uncertain effect on the objective as the nature of any impact will be dependant on what infrastructure funds are spent on. However, Local infrastructure management bodies, established by developers, are more likely to focus on the area of development itself, rather than the wider landscape/ countryside character or the distinctive heritage of landscapes/townscape in general. Overall, therefore, relying only on such arrangements is unlikely to represent the best option, though they may have a partial role in relation to major development areas
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	+	+	+	Option could have a positive effect on the objective as approach could support a local energy company which can adopt locally generated power (such as CHP). If so, this could have a positive impact on reducing greenhouse gas emissions from energy generation.
ENV 7 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?	+	+	+	Option could have a positive impact as local management bodies can more easily adopt and maintain SuDS than public sector bodies, although the approach of public sector bodies is changing. This would have a positive impact on reducing flooding as methods such as SuDS can be more readily used/ adopted.
ENV 8 To provide for sustainable use and sources of	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	

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water supply.					
water supply. ENV 9 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? 	+	+	+	Will have a positive impact on reducing use of materials and resources, as option will provide opportunities for the development of community composting schemes, and glass recycling, for example, both of which are schemes that rely on continual management in order to be successful.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	N	N	Ν	
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be	+	+	+	Option will have a positive impact as local management of open space will help to improve health infrastructure through open space/ leisure.

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	addressed?				
	Will light to the country wide he maintained and and and				
SOC 3 To improve education and skills.	 Will links to the countryside be maintained and enhanced? Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for 	N/A	N/A	N/A	
	existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	N/A	N/A	N/A	
SOC 5 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?	+	+	+	Will have a positive impact against the objective as the approach will give local people a greater stake in how local infrastructure is managed. Furthermore, good management of open space and other community facilities is important to ensure that they do not become rundown and foster anti-social behaviour.
SOC 6 To offer more opportunities for rewarding and satisfying employment for	Will it reduce unemployment overall? Will it help to improve earnings?	N/A	N/A	N/A	

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all.					
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Regular maintenance of open space by local management body will improve the sense of ownership to the infrastructure.
SOC 8 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/A	N/A	N/A	
ECONOMIC					
EC 1 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? 	+	+	+	If local contractors are employed by the management company established by developers, it may well create some local employment
EC 2 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 GreaterNorwich area?Will it support / encourage rural diversification?Will it support / encourage small city businesses?	+	+	+	If local contractors are employed by the management company established by developers, it may well create some local employment
EC 3 To encourage efficient patterns	Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public	+	+	+	If local contractors are employed by the management company established by developers, it may well create some local employment

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of movement in support of economic growth.	transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure?	N/A	N/A	N/A	
To improve the social and environmental performance of the economy.	Will it reduce the impact on the environment from businesses?Will it reduce the impact on residents from businesses?Will it attract new investment and skilled workers to the area?		IV/A	IN/A	
	Will it maintain existing business and employment provision?Will it provide employment in the best locations to serve urban and rural residents?				

• POLICY OPTION: (F) Infrastructure managed by a local infrastructure management body, set up by developers.

Environmental Impacts	Option is likely to have a positive effect on ENV2, 4, 6, 7, 8, and 9. Infrastructure managed by a local body could benefit from greater level of management and there may be more opportunities for enhancement as a result of less budgetary pressures than if the infrastructure were managed by the public sector.
Social Impacts	The option is likely to have little effect against some of the social objectives as the approach is primarily concerned with the mechanisms as to how infrastructure will be managed, rather than the infrastructure itself. However, if local communities are engaged in the management of the infrastructure, it may engender community involvement with social benefits

Economic Impacts	potential for some	I impact on any economic objectives as it mainly deals with the mechanism that funds are spent and managed, but there is local benefit if a local management company engages local contractors, though this may equally apply if local contractors the relevant public agency.
Overall summary:		The option will have a positive impact against a number of environmental and social objectives, as the approach will provide for regular maintenance of local infrastructure whilst enabling increased buy-in from local communities who will have a greater say in the management arrangements. The approach will also have a positive impact on specific
Impacts		environmental objectives as approach will enable other community schemes such as glass recycling and composting at
 Possible mitigation measures Recommended further research 		the outset of development.
Considering cumulative impacts		

Option Appraised: (G) local infrastructure adopted by the public sector (such as SuDS).

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 a	oplicable to this option	

SA Objective	Decision making criteria	Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL					
ENV 1 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/A	N/A	N/A	Option will have a neutral impact on the objective as highway infrastructure will always be adopted by the public sector.
ENV 2 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?	+-	+-	+-	Assuming that infrastructure to protect the water environment does come forward option will have a positive effect as approach will provide for sound management of infrastructure. However, there will also be other funding pressures which may result in less frequent management than would otherwise be undertaken.
ENV 3 To improve environmental amenity, including	Will it improve air quality? Will it reduce the emission of atmospheric pollutants?	N/A	N/A	N/A	

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air quality.					
ENV 4 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? 	+	+	+	assuming that infrastructure to protect the relevant environment does come forward option will have a positive impact on the objective as the proactive management of species and habitats is more beneficial than being left to chance.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	?	?	?	Option will have an uncertain effect on the objective as the nature of any impact will be dependant on what infrastructure funds are spent on. However, the management of infrastructure by local authorities rather than developers is more likely to result in expenditure to enhance the wider landscape/townscape than a management by developers which is a more likely to focus on specific developments
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	?	?	?	Option will have an uncertain effect on the objective as any impact will be determined by the willingness of a public body to adopt locally generated power.
ENV 7 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?	+/-	+/-	+/-	Option will have a positive impact on the objective as flood protection measures will be adopted by the Environment Agency or water undertaking. However, public sector bodies have been reluctant to adopt SUDS to date, and these may be more readily adopted by management companies set up by developers.
ENV 8 To provide for sustainable use	Will it conserve groundwater resources? Will it minimise water consumption?	N/A	N/A	N/A	The option concerns the management of infrastructure provided by developers rather than the provision of the infrastructure itself and there is no

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and sources of					direct effect of this option
water supply. ENV 9 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 	+-	+-	+-	Effects are likely to be mixed as some infrastructure related to local authorities current activities e.g. recycling may be more effectively managed by a public body, though traditionally the public sector has been more reluctant to adopt some innovative technologies, e.g. local energy generation because of the uncertain cost implications.
	generation?				
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected? Will it help to reduce deprivation levels?	Ν	N	N	
	Will it help meet the needs of residents most effectively?				
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities?	+	+	+	Will have a positive impact on management of open space and leisure

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	Will the links between poorer health and deprivation be addressed?				
SOC 3 To improve education and skills.	 Will links to the countryside be maintained and enhanced? Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? 	N/A	N/A	N/A	
	Will adequate education infrastructure be provided for existing and new communities?Will it promote lifelong learning and skills training?Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	N/A	N/A	N/A	
SOC 5 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	N	N	Apart from those facilities married managed by local bodies, for example parish councils, the local community is less likely to have a direct input into management than if it were managed, for example, by a local management company .
SOC 6 To offer more opportunities for rewarding and satisfying	Will it reduce unemployment overall? Will it help to improve earnings?	N/A	N/A	N/A	

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employment for					
all. SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+/-	+/-	+/-	Likely to have a positive impact particularly on improving quality of open space, however impact assumes good level of management by public bodies. However, there will also be other funding pressures which may result in less frequent management than would otherwise be undertaken.
SOC 8 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/A	N/A	N/A	
ECONOMIC EC 1 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	Ν	N	The means of management of infrastructure is likely to have little impact on the local economy unless, as a consequence, there is a difference in the balance between local companies and regional/national companies undertaken the work. management by local authorities would remove a long-term commitment from the developers but at the expense of appropriate commuted payments. The overall effect is therefore likely to be neutral
EC 2 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? Will it support / encourage small city businesses? 	N	Ν	N	See. comments above for EC1. There is likely to be little effect on inward investment or rural diversification.
EC 3 To encourage	Will it improve provision of local jobs?	N	Ν	N	See comments above for EC1.

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efficient patterns of movement in support of economic growth.	 Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 				
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N/A	N/A	N/A	

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

• POLICY OPTION: local infrastructure adopted by the public sector (such as SuDS).

Environmental Impacts	The quality of management of green infrastructure by the public sector could have a positive impact against environmental objectives, but will be dependent upon frequency of management and competing pressures for public resources. Proactive management of infrastructure is preferable to a reactive approach, but positive effects could be further enhanced by more certainty over frequency of management.
Social Impacts	Option could have a positive impact on improving healthy lifestyles as will help to improve quality of open space, but this is dependent on appropriate levels of management being maintained in the face of competing pressures for expenditure.

Economic Impacts	Option has a neutral impact against economic objectives as option only refers to management and adoption of infrastructure. Any reduction in long-term commitment for the developer will be balanced by the need to make a commuted payment to an adopting public body. Public bodies may be marginally more likely than a local management company to have a long term relationships with maintenance contractors which are not locally based, and the impact on the local economy may therefore be very slightly less favourable than management by a local management company.						
Overall summary: Impacts Possible mitigatio Recommended fur Considering cumu	rther research	Option generally performs well against SA objectives, but some positive effects identified are highly dependent upon the level of management that can be undertaken by public bodies. Public sector can adopt the majority of forms of infrastructure, but there are still uncertainties over some types (such as Renewable Energy) where there would be significant risk to the public purse as a result of adoption and management by the public sector.					

Option Appraised:

(H) Funds gathered and managed by the Greater Norwich Development Partnership (GNDP) and spent in accordance with IDP priorities and timing.

SCORING SYSTEM:

				Very negat	ive effects	-	Negat	ive effects +- Mixed effects
N Neutral / insig	nificant effects		?	Uncertain e	effects	Na	a Sustai	inability objective is not applicable to this option
SA Objective		Decision making criter	a		Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects
ENVIRONMENTAL								
ENV 1 To reduce the effect of traffic on the environment.	reduce conge Will it increase other than the Will it reduce t environment? Will it encoura Will new deve for people to t	e the proportion of journeys car? the effect of HGV traffic on age more benign modes of elopment be located such to ravel?	s using people travel? p reduce	modes and the e the need	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 2 To improve the quality of the water environment	(streams, rive	e the quality of the water er rs, lakes etc)? support wetland habitats a			?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 3 To improve	Will it improve	air quality?			?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out

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environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 4 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 	?	?	?	Option is more likely to create habitat links than S106 as contributions can be spent on wider infrastructure projects. However, the effect is uncertain in the short term as the priorities for spending any tariff funding are not known.
	particular avoid harm to protected species?				
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 7 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	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of

	reduce run off?				funding being secured.
ENV 8 To provide for sustainable use and sources of water supply.	Will it conserve groundwater resources? Will it minimise water consumption?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ENV 9 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? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.

SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured. It is uncertain to what extent payments through the Community Infrastructure Levy might be used to support training and skills.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	Will it increase the range of types, sizes and affordability of housing for all social groups?Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured. The Government's current proposal is that affordable housing should still be provided through the S 106 mechanism, preferably on site, and therefore the Mechanism for managing infrastructure contributions is likely to have little impact on this sustainability objective.
SOC 5 To build community identity, improve social welfare,	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but

and reduce crime and anti-social activity.	Will it reduce actual levels of crime? Will it reduce the fear of crime?				this will still depend on adequate overall levels of funding being secured.
SOC 6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall? Will it help to improve earnings?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
SOC 8 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?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
ECONOMIC					
EC 1 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? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
EC 2 To encourage and	Will it encourage indigenous businesses? Will it encourage inward investment? Will it make land and property available for business?	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better

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accommodate both indigenous and inward investment.	Will it improve economic performance across the Greater Norwich area? Will it support / encourage rural diversification? Will it support / encourage small city businesses?				opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	?	?	?	Option will have an uncertain effect on the objective as the impact will depend upon the priorities set out in the IDP. The approach might give a better opportunity to prioritize the most critical infrastructure particularly in terms of its timing, but this will still depend on adequate overall levels of funding being secured.

Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process? POLICY OPTION: Funds gathered and managed by the Greater Norwich Development Partnership (GNDP) and spent in accordance with IDP priorities and timing. 									
Environmental Impacts									
Social Impacts		Uncertain impact against social objectives. There are potential benefits through a wider strategic approach, particularly in terms of prioritizing critical elements of infrastructure, but the overall benefit will still be dependent on adequate overall levels of funding.							
Economic Impacts		against economic objectives. There are potential benefits through a wider strategic approach, particularly in terms of elements of infrastructure, but the overall benefit will still be dependent on adequate overall levels of funding.							
Overall summary: Impacts Possible mitigation Recommended fur Considering cum	rther research	This option is dependent on the use of a tariff/ CIL approach. The approach has an uncertain effect against nearly all the SA objectives as it is not possible to determine what the precise impact of the approach is as this is dependent upon the contents of an Infrastructure Development Programme (IDP). However, the approach itself will provide increased certainty as priorities for spending tariff funds will be clearly set out in the published IDP. These benefits can only be fully realized with adequate overall levels of funding.							

Option Appraised: (I) Funds gathered and managed by a formal joint committee and spent in accordance with the decisions of the committee.

SCORING SYSTEM:

++ Very positive	effects + Positive effects		Very negat	ative effects - Negativ				ive effects +- Mixed effects		
N Neutral / insig	nificant effects	?	Uncertain e	effects	ffects Na Sustainability objective is not applicable to this option					
SA Objective	Decision making criteria			Short- Term 0-5 yrs	Med m Terr 5-20 yrs	n D	Long- Term 20+ yrs	Comments / Justification Inc. cumulative effects		
ENVIRONMENTAL ENV 1 To reduce the effect of traffic on the environment.	 Will it reduce traffic volumes, ease the flow reduce congestion? Will it increase the proportion of journeys of other than the car? Will it reduce the effect of HGV traffic on penvironment? Will it encourage more benign modes of traffic people to travel? 	using r eople avel?	modes and the	? ? ? ?			?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.		
ENV 2 To improve the quality of the water environment	Will it improve the quality of the water env (streams, rivers, lakes etc)? Will it help to support wetland habitats and			?	?		?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.		
ENV 3 To improve environmental	Will it improve air quality? Will it reduce the emission of atmospheric	pollut	ants?	?	?		?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint		

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amenity, including air quality.					committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 4 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 7 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?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 8	Will it conserve groundwater resources?	?	?	?	Option will have an uncertain impact on the

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To provide for sustainable use and sources of water supply.	Will it minimise water consumption?				objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ENV 9 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 2 To maintain and improve the health of the	Will it encourage healthy lifestyles? How?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but

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whole population and promote healthy lifestyles.	Will it provide adequate health infrastructure for existing and new communities?Will the links between poorer health and deprivation be addressed?				this could result in some reduction in sensitivity to local concerns.
SOC 3 To improve education and skills.	 Will links to the countryside be maintained and enhanced? Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	deprivation be addressed?Will it increase the range of types, sizes and affordability of housing for all social groups?Will it reduce the housing need and ensure that housing provision addresses the needs of all?Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?Will it make best use of existing housing stock?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 5 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 6 To offer more	Will it reduce unemployment overall?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what

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opportunities for rewarding and satisfying employment for all.	Will it help to improve earnings?				funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
SOC 8 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
ECONOMIC					
EC 1 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
EC 2 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?	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.

	Will it support / encourage small city businesses?				
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	?	?	?	Option will have an uncertain impact on the objective as it is not possible to determine what funds collected will be spent on. A formal joint committee might have a more strategic focus, but this could result in some reduction in sensitivity to local concerns.

Overal	Overall Conclusions: What are the main effects of the policy option as identified through the sustainability appraisal process?										
	TION: Funds	—			-	a forma	al joint	commit	ee and	l spent	in
Environmental Impacts		through a wider s dependent on ac elopment plan to ould be very sim ently constituted,	trategic appro lequate overa establish its p ilar to option I but this could	oach, particul all levels of fu programme of H. The formal d be at the ex	larly in te nding. It f spendii l joint co spense c	erms of priorit would be posing in much the mmittee migh of local democ	sing critical sible for a fo same way t be in a pos ratic accoun	elements of infra ormal joint comm as described in sition to take an tability.	astructure, bu hittee to prep option H. if th even more st	ut the overall are and publ nis were to b rategic view	lish be the
Social Impacts	the GNDP as currently constituted, but this could be at the expense of local democratic accountability. Option has uncertain effect against all environmental objectives as it is not possible to predict what funds will be spent upon. There are potential benefits through a wider strategic approach, particularly in terms of prioritising critical elements of infrastructure, but the overall benefit will still be dependent on adequate overall levels of funding. It would be possible for a formal joint committee to prepare and publish an integrated development plan to establish its programme of spending in much the same way as described in option H. if this were to be the case the effects would be very similar to option H. The formal joint committee might be in a position to take an even more strategic view than the CNDP as currently apartituted, but this acude he at the expense of local democratic accountability.										
Economic Impacts	the GNDP as currently constituted, but this could be at the expense of local democratic accountability. Option has uncertain effect against all environmental objectives as it is not possible to predict what funds will be spent upon. There are potential benefits through a wider strategic approach, particularly in terms of prioritising critical elements of infrastructure, but the overall benefit will still be dependent on adequate overall levels of funding. It would be possible for a formal joint committee to prepare and publish an integrated development plan to establish its programme of spending in much the same way as described in option H. if this were to be the case the effects would be very similar to option H. The formal joint committee might be in a position to take an even more strategic view than the GNDP as currently constituted, but this could be at the expense of local democratic accountability.									lish be the	
Overall summary: • Impacts • Possible mitigatio • Recommended fu • Considering cum	on measures Irther research	The option has are set out clea (or similar docu	an uncertain rly. This could ment) as disc	impact again d be achieved cussed in opti	st all of t d if the fo on H. Th	the SA objection formal joint cor the formal joint	ves, unless nmittee were committee	decisions on wh e to publish an ir might be in a po se of local demo	ntegrated dev sition to take	velopment pl a more strat	lan

Will it improve the quality of the water environment

Will it help to support wetland habitats and species?

Will it reduce the emission of atmospheric pollutants?

(streams, rivers, lakes etc)?

Will it improve air quality?

Option Appraised: (K) Utilise accredited design process for major Strategic Growth locations (such as Enquiry by Design).

SCORING SYSTEM:

ENV 2

water

ENV 3

To improve the

quality of the

environment

To improve

environmental amenity, including

											• • •
++ Very positive		+	Positive effects		Very negat	ive effects	-			+-	Mixed effects
N Neutral / insig	gnificant effe	cts		?	Uncertain e	effects	Na	a Sustai	nability objective is n	ot ap	oplicable to this option
SA Objective	ective Decision making criteria					Short-	Mediu	Long-	Comr	nent	s / Justification
						Term	m	Term	Inc.	cum	ulative effects
						0-5 yrs	Term	20+ yrs			
						,	5-20	,			
							vrs				
ENVIRONMENTAI							<u> </u>				
ENV 1 To reduce the effect of traffic on the environment.	reduce con Will it incre other than Will it reduc environme Will it enco	ngestior ease the the car ice the e ent? ourage r evelopn	e proportion of journeys ? effect of HGV traffic on more benign modes of nent be located such to	using people travel?	modes and the	+	+	+	integration of sustai major growth locatio encourage use of b	inabl ons. enig	lesign process will aid the e transport systems within Approach will also n modes of travel and needs of new communities.

+

N/A

+

N/A

+

N/A

wetlands.

Will improve opportunities for significant green

ensuring design enhances existing environmental

corridors through major growth locations by

assets, as well as creating new networks of

air quality.					
ENV 4 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? 	+	+	+	Can improve opportunities for strategic scale habitat connection as part of master-planning/ detailed design activities.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	++	++	++	Accreditation process will have a positive effect as it will ensure prevalent local spatial types are identified and help develop a suitable design scheme for the development based upon it.
ENV 6 To adapt to and mitigate against the impacts of climate change.	Will it reduce emissions of greenhouse gases by reducing energy consumption?Will it lead to an increased proportion of energy needs being met from renewable sources?Will it increase the capacity of the area to withstand the effects of climate change?Will it ensure that the risks to lives, land and property are minimised?	+	+	+	Process will ensure renewable energy generation is considered as part of the design, which will help to reduce emission of greenhouse gases. Will also help to ensure development can withstand and adapt to climate change.
ENV 7 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?	+	+	+	Process tailors the design response to the challenges of flood risk that may be presented by the development of a site. The accreditation process will ensure design-based solutions are found to take account of flood risk issues and develop measures so that development can adapt to them.
ENV 8 To provide for sustainable use	Will it conserve groundwater resources? Will it minimise water consumption?	+	+	+	Design solutions will ensure that development secures sufficient opportunities to minimise water consumption (such as the use of grey water

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and sources of					recycling).
water supply.					
ENV 9 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? 	++	++	++	Approach will ensure design of major growth areas uses land efficiently, and could help to provide solutions to minimise waste (such as through community composting schemes), and ensuring that facilities for recycling are included within major developments.
SOCIAL					
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	++	++	++	Will have significant positive impact as local people will be involved from the outset in a collaborative design process. Solutions are then developed to meet their needs and this will help to influence the quality of the built environment.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities?	+	+	+	Process will ensure that major growth areas have adequate health infrastructure planned for alongside sufficient green infrastructure and sports provision and that these integrate well within new schemes. This includes integration of green infrastructure, including formal and informal recreation which can help promote exercise and improve opportunities for

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	Will the links between poorer health and deprivation be addressed?				healthy lifestyles.
	Will links to the countryside be maintained and enhanced?				
SOC 3 To improve education and	Will it improve qualifications and skills for both young people and amongst the workforce?	N/A	N/A	N/A	
skills.	Will it help to retain key workers and provide more skilled workers from school leavers?				
	Will adequate education infrastructure be provided for existing and new communities?				
	Will it promote lifelong learning and skills training?				
	Will links between lower levels of education and deprivation be addressed?				
SOC 4 To provide the opportunity to live	Will it increase the range of types, sizes and affordability of housing for all social groups?	+	+	+	Option will help to deliver the most appropriate design solution to meeting the housing needs of all social groups who will occupy new homes, and to
in a decent, suitable and affordable home.	Will it reduce the housing need and ensure that housing provision addresses the needs of all?				creating sustainable communities through the collaborative approach to design.
	Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities?				
	Will it make best use of existing housing stock?				
SOC 5 To build	Will it encourage engagement in community activities?	+	+	+	Will enhance community engagement in the planning process as policy approach would enable
community identity, improve social welfare,	Will it contribute to the achievement of a mixed and balanced community?				more public involvement, which would in turn help to create more mixed and balanced communities.
and reduce crime and anti-social	Will it reduce actual levels of crime?				
activity.	Will it reduce the fear of crime?				
SOC 6	Will it reduce unemployment overall?	N/A	N/A	N/A	
To offer more opportunities for rewarding and	Will it help to improve earnings?				
satisfying					

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employment for all.					
SOC 7 To improve the quality of where people live.	Will it improve the quality of dwellings? Will it improve the quality of local open space? Will it improve the satisfaction of people with their neighbourhoods?	+	+	+	Option will have a positive effect on improving satisfaction with neighbourhoods as public will have greater involvement in design which can enhance public 'ownership' of an area.
SOC 8 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? 	+	+	+	Will help to improve accessibility to key local services through design-based solutions.
ECONOMIC EC 1 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	N	N	The option concerns only in the design process for strategic growth locations, and its overall effect will therefore be limited. its may have slight positive effects provided employment uses within the developments are appropriately integrated, and suitable connections to other employment areas and the city/district centres are properly integrated into the design.
EC 2 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? Will it support / encourage small city businesses?	N	Ν	N	The option concerns only in the design process for strategic growth locations, and its overall effect will therefore be limited. its may have slight positive effects provided employment uses within the developments are appropriately integrated, and suitable connections to other employment areas and the city/district centres are properly integrated into the design.
EC 3 To encourage	Will it improve provision of local jobs?	+	+	+	Will help improve accessibility to work as an accreditation process will provide design-based

efficient patterns of movement in support of economic growth.	 Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 				solutions to help support the use of public transport, walking and cycling.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	+	+	+	Appropriate master planning should help to ensure that housing, social and employment uses are integrated and connected as effectively as possible and that's existing environmental assets are protected, enhanced, and connected, minimizing adverse impacts of new business locations on residents and environment

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

• POLICY OPTION: Utilise accredited design process for major Strategic Growth locations (such as Enquiry by Design).

Environmental	The approach should aid the integration of sustainable transport within major schemes reducing impact of traffic on the environment, help maintain and enhance biodiversity and geodiversity by integrating green infrastructure (particularly strategic green corridors) and large-scale
Impacts	habitat creation. It also offers of the opportunity to maintain and enhance quality of landscapes and townscapes through the identification of local spatial types, and mitigate against the effects of climate change through renewable energy as well as adapting to the effect of climate change, such as flood risk. The participative approach could also have positive impact on use of resources by raising awareness, and
	promoting community based schemes including grey-water, and community composting.

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Social Impacts	A participative approach to master-planning should have a positive impact on reducing social exclusion, due to collaborative nature of the process. It should also have positive impact on improving health of population by ensuring that both direct and indirect infrastructure is integrated into developments to improve health (including formal and informal open space). It would be expected to have a positive impact on ensuring housing meets the needs of all as community views will be able to be included within schemes. Will enhance community engagement through collaborative process, and could improve overall quality of the built environment.			
Economic Impacts	The approach sho	ould help improve accessibility to work through local design solutions to support public transport, walking and cycling.		
Overall summary: • Impacts • Possible mitigation • Recommended fur • Considering cumu	ther research	Approach is considered likely to have a positive impact against a number of the SA objectives, particularly as a result of the beneficial cumulative impacts resulting from the use of accredited design process. These effects are notable as the process is specifically designed to enhance community involvement in the planning of new growth areas, as open discussion forums allow views to be aired and design solutions developed to respond to them. Such a process should also have a positive cumulative impact by meeting the needs of all sections of the community as well as enhancing the quality of the built environment as using design solutions will help ensure that all people's needs are catered for rather than solely considering what the market dictates. The use of this process is expected to help create sustainable communities, where the end-users of the developments can have a direct input into the design process to make places better.		

Option Appraised:

(L) Do <u>not</u> utilise accredited design process for major Strategic Growth locations, but rely on developers to ensure design quality.

SCORING SYSTEM:

				Very negat				ive effects +- Mixed e	
N Neutral / insig	nificant effects		?	Uncertain e	effects	N	a Sustai	nability objective is not applicable	to this option
SA Objective	Decision making criteria				Short- Term 0-5 yrs	Mediu m Term 5-20 yrs	Long- Term 20+ yrs	Comments / Justifi Inc. cumulative ef	
ENVIRONMENTAL									
ENV 1 To reduce the effect of traffic on the environment.	reduce congestion Will it increase the other than the car Will it reduce the environment? Will it encourage	ne proportion of journeys ar? e effect of HGV traffic on p e more benign modes of to oment be located such to	using beople ravel?	modes and the	Ζ	Ν	N	Approach will have a neutral effe as there would be no positive inte external sources in the design pr result in no additional beneficial is sustainability terms than would of secured from developers ensuring their own designs.	ervention from rocess. This would impacts in therwise be
ENV 2 To improve the quality of the water environment	(streams, rivers,	e quality of the water env lakes etc)? oport wetland habitats and			Ν	Ν	N	Approach will have a neutral effe as there would be no positive inte external sources in the design pr result in no additional beneficial i sustainability terms than would o secured from developers ensurin their own designs.	ervention from rocess. This would impacts in therwise be
ENV 3 To improve	Will it improve ai	r quality?			N/A	N/A	N/A		

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environmental amenity, including air quality.	Will it reduce the emission of atmospheric pollutants?				
ENV 4 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	N	N	Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs. Local knowledge of the value of particular local habitats could be lost.
ENV 5 To maintain and enhance the quality of landscapes, townscapes and the historic environment.	 Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant? Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage? Will it reduce the amount of derelict, underused land? Will it protect and enhance features of historical, archaeological and cultural value? 	Ν	Ν	N	Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs. Local knowledge of the value of some local assets could be lost.
ENV 6 To adapt to and mitigate against the impacts of climate change.	 Will it reduce emissions of greenhouse gases by reducing energy consumption? Will it lead to an increased proportion of energy needs being met from renewable sources? Will it increase the capacity of the area to withstand the effects of climate change? Will it ensure that the risks to lives, land and property are minimised? 	Ν	Ν	N	Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs.
ENV 7 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?	Ν	N	N	Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs. Some local knowledge of previous flooding events in the locality could be lost.

ENV 8 To provide for sustainable use and sources of water supply. ENV 9 To make the best	Will it conserve groundwater resources? Will it minimise water consumption? Will it minimise consumption of materials and resources?	N	N N N	N	 Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs. Approach will have a neutral effect on the objective as there would be no positive intervention from
use of resources, including land and energy, and to minimise waste production.	 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? 				external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs.
SOCIAL		1			
SOC 1 To reduce poverty and social exclusion.	Will it reduce poverty and social exclusion in those areas most affected?Will it help to reduce deprivation levels?Will it help meet the needs of residents most effectively?	N	N	Ν	Approach will have a neutral effect on the objective as there would be no positive intervention from external sources in the design process. This would result in no additional beneficial impacts in sustainability terms than would otherwise be secured from developers ensuring the quality of their own designs. Input from local people should help to ensure that their needs are met as effectively

					as possible, and this opportunity will be lost.
SOC 2 To maintain and improve the health of the whole population and promote healthy lifestyles.	 Will it improve access to high quality health facilities? Will it encourage healthy lifestyles? How? Will it provide adequate health infrastructure for existing and new communities? Will the links between poorer health and deprivation be addressed? Will links to the countryside be maintained and enhanced? 	Ν	Ν	N	Some local knowledge, e.g. areas of countryside accessible to the public may not be made available at the design stage compared with a more participative approach.
SOC 3 To improve education and skills.	 Will it improve qualifications and skills for both young people and amongst the workforce? Will it help to retain key workers and provide more skilled workers from school leavers? Will adequate education infrastructure be provided for existing and new communities? Will it promote lifelong learning and skills training? Will links between lower levels of education and deprivation be addressed? 	N/A	N/A	N/A	
SOC 4 To provide the opportunity to live in a decent, suitable and affordable home.	 Will it increase the range of types, sizes and affordability of housing for all social groups? Will it reduce the housing need and ensure that housing provision addresses the needs of all? Will it provide the most appropriate solutions to address the housing requirements needed for creating sustainable communities? Will it make best use of existing housing stock? 	Ν	Ν	N	
SOC 5 To build community identity, improve social welfare,	Will it encourage engagement in community activities? Will it contribute to the achievement of a mixed and balanced community?	Ν	N	N	The opportunity for community development which would be offered by a participative approach would it be lost.

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and reduce crime	Will it reduce actual levels of crime?				
and anti-social					
activity.	Will it reduce the fear of crime? Will it reduce unemployment overall?	N/A	N/A	N/A	
To offer more		IN/A	IN/A	IN/A	
opportunities for	Will it help to improve earnings?				
rewarding and					
satisfying					
employment for					
all. SOC 7	Will it improve the quality of dwellings?	N	N	N	Some local input would be likely to ensure open
To improve the	will it improve the quality of dwennings?	IN	IN	IN	space meets needs as effectively as possible and
quality of where	Will it improve the quality of local open space?				the overall satisfaction of people with their
people live.					neighbourhoods. This opportunity will be lost
	Will it improve the satisfaction of people with their				compared with a more participatory approach.
	neighbourhoods?				
SOC 8 To improve	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space,	N	N	N	Some knowledge of routes to local services will be
accessibility to	the countryside and community facilities)?				lost contact with a more participate are an approach.
essential					
services, facilities	Will it improve accessibility for all whilst reducing				
and jobs.	dependency on the private car?				
	Will it improve access to jobs and services for all?				
ECONOMIC					
EC 1	Will it assist in strengthening the local economy?	N/A	N/A	N/A	
To encourage	M/III it immerses have been developed and and an house				
sustained economic growth.	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?				
EC 2	Will it encourage indigenous businesses?	N	N	N	It is likely that any major development would
To encourage	Will it encourage inward investment?				undergo some form of master-planning, and the
and	Will it make land and property available for business?				decision whether to adopt a participatory approach would be likely to have little effect on this
accommodate					

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both indigenous and inward investment.	 Will it improve economic performance across the Greater Norwich area? Will it support / encourage rural diversification? Will it support / encourage small city businesses? 				sustainability objective.
EC 3 To encourage efficient patterns of movement in support of economic growth.	 Will it improve provision of local jobs? Will it improve accessibility to work, particularly by public transport, walking and cycling? Will it reduce journey times between key employment areas and key transport interchanges? Will it improve efficiency and sustainability of freight distribution? Will it support provision of key communications infrastructure? 	N	Ν	N	It is likely that any major development would undergo some form of master-planning, and the decision whether to adopt a participatory approach would be likely to have little effect on this sustainability objective.
EC 4 To improve the social and environmental performance of the economy.	 Will it reduce the impact on the environment from businesses? Will it reduce the impact on residents from businesses? 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? 	N	Ν	Ν	It is likely that any major development would undergo some form of master-planning, and the decision whether to adopt a participatory approach would be likely to have little effect on this sustainability objective, though the absence of a local input might lead to some concerns about the juxtaposition of residential and employment areas, and local knowledge about local environmental assets would be lost compared with a more participatory approach.

POLICY OPTI	ION: Do not u	at are the main effects of the policy option as identified through the sustainability appraisal process? Itilise accredited design process for major Strategic Growth locations, ars to ensure design quality.		
Environmental Impacts	The normal processes of master-planning undertaken by a developer and development management undertaken by local planning authorities in accordance with the policies in this local development framework should ensure an acceptable standard of development. However, a more participatory approach should enable better account to be taken of local knowledge concerning social and environmental assets, local patterns of movement etc and results in a development which better meets people's expectations and aspirations. this opportunity would be lost under this option			
Social Impacts	In addition to the environmental impacts, which could diminish long term satisfaction with the development, this option would fail to take the opportunity fully to engage with local people, and would, therefore, fail to maximize opportunities for social cohesion and community development.			
Economic Impacts	There would be little difference between this option and option K. in terms of economic impacts, though there might be a marginal adverse effect of business on the local environment through the failure to make fullest use of local environmental knowledge.			
Overall summary: • Impacts • Possible mitigation measures • Recommended further research • Considering cumulative impacts		This option is reliant on the development industry ensuring design quality in major growth areas with no additional intervention measures than would normally be used in planning for strategic scale growth. This approach will not harm the baseline conditions, nor have any negative effects on the objectives. This option is a 'business as usual' approach and as such, takes no positive steps towards creating sustainable communities and delivering places where local people are involved from the outset. Therefore, the option should be seen as a baseline against which option K. should be compared.		