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Welwyn Hatfield Emerging Core Strategy

Sustainability Appraisal Report

Appendix A2: Appraisal Matrices – Spatial Distribution Alternatives

Prepared by LUC
September 2012

Welwyn Hatfield Emerging Core Strategy Sustainability Appraisal September 2012

SA Matrix A2.1: Spatial Distribution Option 1: Proportionate distribution

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
Long-term Objective 1: Health Improvement				
...lead to reduced health inequalities, and in particular improve the health of those living in communities characterised by relatively poor health? (1.1)	Welwyn Garden City	Wards on the eastern side of WGC are characterised by higher levels of multiple deprivation than those wards on the western side of WGC. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation. Minor positive effects on this objective but with uncertainty relating to the actual location of development.	None required.	+?
	Hatfield	Hatfield is characterised by some of the borough's highest areas of multiple deprivation although other areas are less deprived. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation. Minor positive effects on this objective but with uncertainty relating to the actual development location.	None required.	+?
	Large excluded villages	Growth around these villages could help to maintain viability of existing primary healthcare facilities (minor positive effect) but		+/-

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		would be less well related to the more extensive facilities of WGC and Hatfield to varying degrees (minor negative effect).		
	Small excluded villages and settlements	These settlements have small service centres with a limited range of facilities which are unlikely to include primary healthcare so that directing development here will increase travel distances to GPs and to hospitals such as that in WGC. Deprivation levels are low in these settlements so housing provision has little potential to impact this indicator.	None required.	-
	Rest of the Borough	Directing development to the borough's smallest settlements where few healthcare facilities exist will increase travel distances to GPs and to hospitals such as that in WGC. Deprivation levels are generally low in these rural areas so housing provision has little potential to impact this indicator.	None required.	-
...lead to improved health for all? (1.2)		This option is not expected to have an effect on this objective	None required.	0
Long-term Objective 2: Safer Communities				

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...reduce opportunities for crime and anti-social behaviour, and reduce fear of crime? (2.1)		This option is not expected to have an effect on this objective	None required.	0
...ensure there is no increase in flood risk to people or property, taking into account climate change? (2.2)	Welwyn Garden City	The existing urban area of WGC is not generally subject to fluvial flood risk so that development in existing urban areas will have positive effects on this objective. Land to the north and north east of WGC sits within flood risk areas associated with the River Mimram; land to the south and south west of WGC is subject to flood risk associated with the River Lea. Any potential increase in flood risk due to development beyond the existing urban area will be determined by locations selected for development, resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?
	Hatfield	The existing urban area of Hatfield is not generally subject to fluvial flood risk so that development in existing urban capacity will have positive effects on this objective. Land to the north and north-east of Hatfield is subject to flood risk associated with the River Lea whilst an area to the west of the town lies within high risk Flood Zones associated with a tributary of the River Colne. Any potential beyond the existing urban area will be determined by the locations selected for development, resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?
	Large excluded	All of the Large Excluded Villages have some land on their peripheries in Flood Zones 2 or	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages	3 but insufficient information is available at this stage of the plan-making process about the locations for development to determine whether there will be an increase in flood risk, resulting in uncertain effects on this objective.	in Flood Zones 2 and 3 unless it is for a compatible use.	
	Small excluded villages and settlements	Land to the south of Digswell lies in zones of higher flood risk associated with the River Mimram leading to uncertain effects on this SA objective in respect of potential development at this village, these being dependent on actual locations for development. Other small excluded villages are not subject to fluvial flood risk, resulting in significant positive effects on this SA objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	?/++
	Rest of the Borough	The borough's smallest settlements and rural areas have some land in Flood Zones 2 or 3 but insufficient information is available at this stage of the plan-making process about the locations for development to determine whether there will be an increase in flood risk, resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	?
Long-term objective 3: Good Citizenship				
...encourage involvement of the public in the planning process? (3.1)		This option is not expected to have an effect on this objective	None required.	0
Long-term objective 4:				

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
Improving the environment				
...significantly reduce greenhouse gas emissions from built development? (4.1)		This objective is more likely to be affected by the scale of development and policies to reduce greenhouse gas emissions through the design of the built environment rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...significantly reduce greenhouse gas emissions from transport? (4.2)	Welwyn Garden City	Development within the existing urban area of WGC has the potential to provide sustainable access to services and facilities within WGC and to rail and bus links to those in other settlements with significant positive effects on this objective. Development on the edge of the town would generally be relatively well related to existing services and facilities within WGC, compared to development around smaller settlements or in the countryside, facilitating sustainable travel choices and resulting in minor positive effects on this objective. Most of the land around WGC is also well related to the A1(M) and main A roads. Uncertainty relates to the possibility that new residents may choose to travel by car.	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)</p>	++/++?
	Hatfield	Development within the existing urban area of Hatfield has the potential to provide sustainable access to services and facilities within the town although the position of the rail station on the eastern edge of the town reduces its accessibility to development in the	Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.	++/++?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>western part of the existing urban area. There are good bus links to other towns. Nevertheless, the significant development provided for in the existing urban area under Option 1 is judged to have significant positive effects on this objective.</p> <p>In respect of new development outside the urban area of Hatfield, levels of accessibility to existing services and facilities within Hatfield will generally be relatively good, facilitating sustainable travel choices and resulting in minor positive effects on this objective. This effect is uncertain because it will depend on the location of development (e.g. west of Ellenbrook is in a deficit area for GPs, schools and local shopping facilities) and because most of the land around Hatfield is also well related to the A1(M) and major A roads, presenting the possibility that new residents may choose to travel by car.</p>	<p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)</p>	
	Large excluded villages	Development around Large excluded villages would be reasonably well related to existing village centres with a limited range of community facilities, amenity open space, open countryside and some employment opportunities locally. Overall, there is the potential to reduce greenhouse gas emissions from transport if public transport and cycling facilities are supported and promoted, otherwise proximity to main roads and lack of larger services and facilities could encourage	<p>Some mitigation to increased greenhouse gas emissions from transport is likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p>	+?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		journeys by car.	CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes).	
	Small excluded villages and settlements	These settlements have small service centres with a limited range of facilities and few jobs so that directing development here will increase the need to travel. Sustainable transport options also tend to be poor and the scale of development is unlikely to be sufficient to support significantly enhanced transport or local service provision. An increase in journeys by private car is therefore likely with significant negative effects on this objective.	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes).</p>	--
	Rest of the Borough	The borough’s smallest settlements and rural areas have few facilities or local jobs so that directing development here will increase the need to travel. Sustainable transport options also tend to be poor and the scale of development is unlikely to be sufficient to support significantly enhanced transport or local service provision. An increase in	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be</p>	--

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		journeys by private car is therefore likely with significant negative effects on this objective.	<p>designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes).</p>	
...avoid and reduce air pollution? (4.3)	Welwyn Garden City	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	++/+?
	Hatfield	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	++/+?
	Large excluded villages	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	+?
	Small	In relation to air pollution from cars, the	Some mitigation to increased air pollution	--

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	excluded villages and settlements	same issues apply as discussed under greenhouse gas emissions from transport above.	emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	
	Rest of the Borough	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	--
...protect and enhance open space and landscape character, retaining local distinctiveness? (4.4)	Welwyn Garden City	<p>This option would direct housing growth to the existing urban area of WGC, a large proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of two broad locations around WGC. One of these, broad location A (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North East of Welwyn Garden City BLG1 and is assessed separately. The second broad</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will incorporate landscaping which uses high quality local materials and reflects local character.</p>	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		location B (identified at the Issues and Options consultation) was sub-divided into five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one, medium for three and medium-high for one. Landscape effects remain uncertain until sites are selected.		
	Hatfield	<p>This option would direct housing growth towards Hatfield, a proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of three broad locations around Hatfield. Broad location C (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North West of Hatfield BLG2. Broad location D (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Safeguarded Land to the west of Hatfield. Both of these are separately assessed in the SA Report. The third broad location, E, West of Ellenbrook and Roehyde (identified at Issues and Options</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will incorporate landscaping which uses high quality local materials and reflects local character.</p>	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		consultation), was sub divided into a number of landscape areas. Of the areas which have been surveyed one was assessed as having medium capacity to accept growth whilst others were of low capacity. The fourth broad location, F, South of Hatfield (identified at the Issues and Options consultation) was sub-divided into five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one and medium for four. Landscape effects remain uncertain until sites are selected.		
	Large excluded villages	<p>Development around Large Excluded Villages would be on a greenfield land (except for Welwyn where the opportunity exists to identify a large previously developed site for housing), resulting in a loss of open space (significant adverse effect on objective 4.4).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) found a range of capacities for development around Large Excluded Villages although this did not assess all land surrounding these villages. Effects of development on landscape character therefore remain uncertain until sites are selected.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 20 Villages and Rural Areas – requirement for development to be small scale and to respect the setting, form and character of the settlement and surrounding landscape.</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural environment, including landscape.</p>	--/?
	Small excluded	Development around Small Excluded Villages would generally be on a greenfield land,	Potential negative effects of this policy will be reduced by policies on:	--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages and settlements	<p>resulting in a loss of open space (significant adverse effect on objective 4.4).</p> <p>With the exception of an area to the north-west of Little Heath (assessed as having medium capacity in the landscape to accommodate development) the Draft Landscape Sensitivity and Capacity Study (WHBC, 2011) did not assess land surrounding these settlements. Effects of development on landscape character are therefore uncertain.</p>	<p>CS 20 Villages and Rural Areas – requirement for development to be small scale and to respect the setting, form and character of the settlement and surrounding landscape.</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural environment, including landscape.</p>	
	Rest of the Borough	<p>Development around the borough’s smallest settlements or in rural areas would generally be on a greenfield land, resulting in a loss of open space (significant adverse effect on objective 4.4).</p> <p>The Draft Landscape Sensitivity and Capacity Study (WHBC, 2011) did not assess land surrounding the smallest settlements or in open countryside. Effects of development on landscape character are therefore uncertain.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 20 Villages and Rural Areas – requirement for development to be small scale and to respect the setting, form and character of the settlement and surrounding landscape.</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural environment, including landscape.</p>	--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
<p>...protect and enhance the Borough's character, sense of place and local distinctiveness, historic and cultural assets? (4.5)</p>	<p>Welwyn Garden City</p>	<p>Land within and around WGC contains or lies adjacent to a number of Areas of Archaeological Significance. Most of the town to the west of the railway line and much of Hall Grove neighbourhood (Beehive) in the south east of the town are conservation areas. These historic and cultural assets could suffer direct loss or damage if housing development takes place within them. In addition, indirect adverse effects could result from inappropriate development within the settings of above-ground features. Effects remain uncertain until development sites are selected.</p> <p>The addition of around 3,190 homes in and around WGC represents a moderate scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	<p>?</p>
	<p>Hatfield</p>	<p>Land within and around Hatfield is less constrained by Areas of Archaeological Significance than that around WGC, although archaeological areas exist to the north and east of the town. In addition, there is a single conservation area in Old Hatfield to the</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place;</p>	<p>?</p>

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>east of the train station. These historic and cultural assets could suffer direct loss or damage if housing development takes place within them. In addition, indirect adverse effects could result from inappropriate development within the settings of above-ground features. Effects remain uncertain until development sites are selected.</p> <p>The addition of around 2,060 homes in and around Hatfield represents a moderate scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.</p>	<p>landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	
	Large excluded villages	<p>The levels of housing growth set out in Table 1 of the Housing Background Paper Part 2 represent a moderate scale of growth for all these settlements. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5.</p> <p>Some Large Excluded Villages contain significant historic and cultural assets, for</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character and encouraging a strong sense of place.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	0/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>example the centre of Welwyn village is a conservation area and much of the village is an Area of Archaeological Significance. Although development could theoretically lead to direct loss or impact the settings of historic assets, mitigation is provided by policies CS 9 and CS 11, resulting in a neutral effect on historic and cultural assets.</p>		
	Small excluded villages and settlements	<p>The levels of housing growth set out in Table 1 of the Housing Background Paper Part 2 represent a moderate scale of growth for all these settlements. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5.</p> <p>Some Small Excluded Villages contain significant historic and cultural assets, for example Areas of Archaeological Significance around Woolmer Green, Oaklands & Mardley Heath. Although development could theoretically lead to direct loss or impact the settings of historic assets, mitigation is provided by policies CS 9 and CS 11, resulting in a neutral effect on historic and cultural assets.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character and encouraging a strong sense of place.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	0/?
	Rest of the Borough	<p>The levels of housing growth set out in Table 1 of the Housing Background Paper Part 2 represent a moderate scale of growth for the borough's smallest settlements. Effects on</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design</p>	0/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5.</p> <p>Although development could theoretically lead to direct loss or impact the settings of historic assets, mitigation is provided by policies CS 9 and CS 11, resulting in a neutral effect on historic and cultural assets.</p>	<p>requirements, including reflecting local distinctive character and encouraging a strong sense of place.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	
...protect and enhance biodiversity, taking into account the impacts of climate change? (4.6)	Welwyn Garden City	<p>Two SSSIs are located in or around WGC - Sherrardspark Wood to the north west and Tewinbury to the north east. Additionally, a number of locally designated wildlife sites are present, mostly around the town's periphery. The biodiversity features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface run-off. Development around WGC would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall, biodiversity effects of development around WGC remain uncertain until sites are selected.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.</p>	?
	Hatfield	<p>Significant parts of the northern, eastern and southern boundaries of Hatfield are constrained by locally designated wildlife sites with some smaller sites also present within the urban boundary. The biodiversity</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that</p>	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface run-off. Development around Hatfield would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall, biodiversity effects of development around Hatfield remain uncertain until sites are selected.	development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	
	Large excluded villages	A SSSI (Water End Swallow Holes) is located approximately halfway between Welham Green and Brookmans Park and Northaw Great Wood SSSI is located to the north east of Cuffley. A number of locally designated wildlife sites are located around the Large Excluded Villages. The biodiversity features of these sites may be vulnerable to visitor disturbance/damage or contaminated surface run-off associated with development in the villages although mitigation is provided by Policies CS 4 and CS 11. Biodiversity effects of development remain uncertain until sites are selected.	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	?
	Small excluded villages and settlements	A number of locally designated wildlife sites are located around the Small Excluded Villages with Digswell and Oaklands & Mardley Heath particularly constrained. The biodiversity features of these sites may be vulnerable to visitor disturbance/damage or contaminated surface run-off associated with	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		development in the villages although mitigation is provided by Policies CS 4 and CS 11. Biodiversity effects of development remain uncertain until sites are selected.	CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	
	Rest of the Borough	The borough’s rural area includes the edge of Wormley-Hoddesdonpark Woods SAC and several SSSIs. A large number of locally designated wildlife sites are located in rural areas and around the borough’s smallest settlements. The biodiversity features of these sites may be vulnerable to visitor disturbance/damage or contaminated surface run-off associated with development in the villages although mitigation is provided by Policies CS 4 and CS 11. Biodiversity effects of development remain uncertain until sites are selected.	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	?
...reduce water consumption, and provide for reliable sources of water supply even in drought conditions? (4.7)		This objective is more likely to be affected by the scale of development and policies to reduce water consumption rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...avoid water pollution? (4.8)	Welwyn Garden City	Land in and around WGC lies within the catchments of the Mill Green and Rye Meads WWTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WWTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made	-/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		surface run-off from sites within the catchments of the River Lea or River Mimram to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	for new or improved infrastructure required to meet the levels of growth identified.	
	Hatfield	Land in and around Hatfield lies within the catchments of the Mill Green and Maple Lodge WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites within the catchments of the River Lea or River Colne to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Large excluded villages	Land in and around the Large Excluded Villages village lies within the catchments of Rye Meads WwTW (Welwyn), Maple Lodge WwTW (Brookmans Park, Welham Green) and Deephams WwTW (Cuffley). As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchment of all of these WwTWs, although effects on the capacity of Deephams are expected to be negligible. Resolution of these issues could affect the timing and/or viability of housing at this location.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Small	Land in and around the Small Excluded	The following policies will help to mitigate	-/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	excluded villages and settlements	<p>Villages lies within the catchments of the Rye Meads and Maple Lodge WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites to the south of Digswell to enter the River Mimram although this potential effect remains uncertain until development site locations are selected.</p>	<p>the potential negative effects of this policy:</p> <p>CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality.</p> <p>CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.</p>	
	Rest of the Borough	<p>With the exception of land in the south-eastern part of the borough (served by Deephams WwTW), the remainder of Welwyn Hatfield lies within the catchments of the Rye Meads, Mill Green and Maple Lodge WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites to the south of Digswell to enter the River Mimram although this potential effect remains uncertain until development site locations are selected.</p>	<p>The following policies will help to mitigate the potential negative effects of this policy:</p> <p>CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality.</p> <p>CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.</p>	-/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...minimise the amount of waste generated and maximise the re-use, recycling or composting of waste that cannot be reduced? (4.9)		This objective is more likely to be affected by the scale of development and policies to manage waste rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...promote the conservation and sustainable use of productive agricultural land and maximise the sustainable use of previously developed land? (4.10)	Welwyn Garden City	Development within the existing urban area of WGC would have significant positive effects on this objective. Almost all of the land around WGC lies within Agricultural Land Classification grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the land is grade 3a (BMV) or grade 3b (moderate quality) and because the distribution options do not identify development sites.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
	Hatfield	Development within the existing urban area of Hatfield would have significant positive effects on this objective. With the exception of land to the south of Hatfield, most of the land around the town lies within Agricultural Land Classification grade 2 or grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the grade 3 land is grade 3a (BMV) or grade 3b (moderate quality) and because the distribution options do not identify development sites.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Large excluded villages	Development within the existing urban area of Welwyn and through the redevelopment of a Major Developed Site in the Green Belt close to Welwyn village will avoid potential loss of productive agricultural land elsewhere (significant positive effect on SA objective). Effects on best and most versatile (BMV) agricultural land are uncertain in respect of other Large Excluded Villages which are surrounded by some grade 2 and some grade 3 land. Data are unavailable to determine whether the land is grade 3a (BMV) or grade 3b (moderate quality) and the exact location of development sites in relation to the BMV land is not dealt with in the Emerging Core Strategy as this would fall to a Site Allocations document.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
	Small excluded villages and settlements	Development within the existing urban area of Small Excluded Villages would have significant positive effects on this objective. Development beyond their boundaries would generally be on grade 3 agricultural land. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the grade 3 land is grade 3a (BMV) or grade 3b (moderate quality) and because sites have not yet been selected.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Rest of the Borough	Development within the existing urban area of other small settlements in the borough would have significant positive effects on this objective. Development beyond their boundaries would either be on grade 2 or grade 3 agricultural land. Data are unavailable to determine whether the grade 3 land is grade 3a (BMV) or grade 3b (moderate quality) and the exact location of development sites in relation to the BMV land is not yet known leading to uncertain effects on this SA objective.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
Long-term Objective 5: Decent Housing				
...provide the right amount, type and tenure of housing to meet identified local needs? (5.1)	Welwyn Garden City	Development in and around WGC will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Hatfield	Development in and around Hatfield will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Large excluded	Development in and around Large Excluded Villages will help to address low levels of past	None required.	++

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages	growth and by meeting local housing requirements, including for affordable housing, help newly formed households to remain in village communities with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.		
	Small excluded villages and settlements	Development in and around Small Excluded Villages will help to address low levels of past growth and by meeting local housing requirements, including for affordable housing, help newly formed households to remain in village communities with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Rest of the Borough	Development in and around the borough's smallest settlements would help to address low levels of past growth and by meeting local housing requirements, including for affordable housing, help newly formed households to remain in rural communities with a significant positive effect on objective 5.1. Type and tenure of housing is not specified – assessment of this element of the objective is provided under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
Long-term objective 6: A thriving economy				

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...ensure the supply, location and quality of business and employment sites reflects the needs of local businesses and encourages a mixed and greener economy? (6.1)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0
...encourage economic investment in those areas most in need of regeneration, in a way that will benefit those most in need of rewarding employment? (6.2)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0
...enhance the vitality and attraction of Welwyn Garden City and Hatfield town retail centres? (6.3)	Welwyn Garden City	Development in the existing urban area of WGC (1,847 dwellings capacity) would provide additional potential customers and employees to support regeneration of the town centre, resulting in significant positive effects on this objective. Development on the edge of WGC (to accommodate remaining 1.345 dwellings under this option) would be some distance from the town's retail centre but those seeking larger shops are nevertheless likely to travel into WGC town	None required.	++/+

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		centre (or Hatfield town centre for development sites on the southern edge of WGC), helping to improve the viability of existing and new retail outlets at these centres, with minor positive effects on this objective.		
	Hatfield	Development in the existing urban area of Hatfield (1,111 dwellings capacity) would provide additional potential customers and employees to support regeneration of the retail centre, resulting in significant positive effects on this objective. Development on the edge of Hatfield (to accommodate the remaining 947 dwellings under this option) would be some distance from the town's retail centre but those seeking larger shops could be drawn to Hatfield or WGC town centre, helping to improve the viability of existing and new retail outlets at these centres, with minor positive effects on this objective. An exception to this would be if development were to take place on the western edge of Hatfield, where residents may choose to travel into St Albans for comparison shopping, resulting in minor negative effects on this objective.	None required.	++/+/-
	Large excluded villages	Welwyn village, Brookmans Park and Welham Green, although located at some distance from WGC or Hatfield town centres are nevertheless likely to contribute to comparison shopping in those centres (minor	None required.	+?/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>positive effect on SA objective). Uncertainty exists as residents of Brookmans Park and Welham Green may also be drawn to Potters Bar.</p> <p>Development around Cuffley is not expected to have an effect on this objective. The village is a considerable distance from these town centres and residents would be more likely to use facilities and services in Cheshunt, than Hatfield or Welwyn Garden City.</p>		
	Small excluded villages and settlements	<p>Developments at Digswell, Oaklands & Mardley Heath and Woolmer Green, although located at some distance from WGC town centre, are nevertheless likely to contribute to comparison shopping in that city centre (minor positive effect on SA objective).</p> <p>Development in and around Little Heath is not expected to have an effect on this objective. The village is a considerable distance from these town centres and residents would be more likely to use facilities and services in Potters Bar than Hatfield.</p>	None required.	+/-0
	Rest of the Borough	The effects of development in and around the borough's other small settlements on this SA objective are uncertain, being dependent on the accessibility of the settlement in question to the two main towns relative to large centres such as St Albans, Potters Bar and	None required.	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		Stevenage in neighbouring districts		
...sustain rural communities and their economies, small businesses and other rural diversification, while protecting rural character? (6.4)	Welwyn Garden City	Development in and around WGC is not expected to have an effect on this objective.	None required.	0
	Hatfield	Development in and around Hatfield is not expected to have an effect on this objective.	None required.	0
	Large excluded villages	Development in and around Large Excluded Villages will help to ensure the viability of the facilities and infrastructure needed by the communities of these settlements and their immediate surroundings e.g. shops, primary schools.	None required.	++
	Small excluded villages and settlements	Development in and around Small Excluded Villages will help to ensure the viability of the limited facilities and infrastructure needed by the communities of these settlements and their immediate surroundings.	None required.	++
	Rest of the Borough	Dispersed development across the borough's other small settlements will help to ensure the viability of existing rural services and facilities. The extent of these is likely to be limited, however, and the scale of development insufficient to support provision of new services.	None required.	+
...avoid the sterilisation of mineral resources? (6.5)	Welwyn Garden City	There are no permitted or preferred extraction sites on land immediately surrounding WGC. However, most of the land around in the borough lies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		development around WGC but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.		
	Hatfield	There are permitted and preferred minerals extraction sites present to the west and north-west of Hatfield whilst the remainder of land around the town lies within the sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around Hatfield but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised. CS19 states that minerals will be extracted from land to the west of the redeveloped part of Hatfield Aerodrome before it is landscaped as a county park or safeguarded for potential development beyond the plan period.	0
	Large excluded villages	There are no existing or preferred extraction sites around Welwyn village, Brookmans Park, Welham Green or Cuffley. However, most of the land in the boroughlies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around the large excluded villages but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0
	Small excluded villages and settlements	There are no existing or preferred extraction sites around the Small Excluded Villages. Land around the villages lies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around the small excluded	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		villages and settlements but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.		
	Rest of the Borough	There are permitted and preferred minerals extraction sites present to the west and north-west of Hatfield whilst most of the remainder of land in the borough lies within the sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development in the rest of the borough but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0
...provide access to training, skills development and lifelong learning to meet identified needs? (6.6)	Welwyn Garden City	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of growth. Growth in the existing urban area (1,847 dwellings capacity) is sufficiently large to support new primary school provision. Similarly, the number of remaining dwellings that would need to be accommodated on the edge of WGC (1,345 dwellings) is sufficiently large to support a new primary school(s) as part of a new neighbourhood, resulting in minor positive effects on this objective.	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+
	Hatfield	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		growth. The scale of growth within and on the edge of Hatfield would be sufficiently large to support a new primary school(s) as part of a new neighbourhood, resulting in minor positive effects on this objective.		
	Large excluded villages	<p>Development in and around the Large Excluded Villages could potentially use existing local schools, although it is understood from WHBC that existing schools are generally at capacity with limited or no scope to expand and with some viability concerns over expansion.</p> <p>The effectiveness of mitigating policies to meet the needs of new development (see column to right) will be linked to expansion opportunities and viability. The villages are not as well located to opportunities for higher and further education as the towns.</p>	<p>Potential local school capacity issues are mitigated by the following policies:</p> <p>CS 3: Settlement Strategy - planned growth around the excluded villages will take into account infrastructure capacity.</p> <p>CS 12: Infrastructure Delivery – suitable provision will be made for new or improved infrastructure.</p>	+/-/?
	Small excluded villages and settlements	<p>Development in and around the Large Excluded Villages could potentially use existing local primary schools although new residents will have to travel to larger settlements to access secondary or higher education. Although it is understood from WHBC that existing schools are generally full, mitigating policies (see column to right) should ensure expansion to meet the needs of new development.</p>	<p>Potential local school capacity issues are mitigated by the following policies:</p> <p>CS 3: Settlement Strategy - planned growth around the excluded villages will take into account infrastructure capacity.</p> <p>CS 12: Infrastructure Delivery – suitable provision will be made for new or improved infrastructure.</p>	+/-
	Rest of the Borough	<p>Development in and around the borough's small settlements will require residents to travel to larger settlements to access</p>	<p>Potential local school capacity issues are mitigated by the following policies:</p>	-

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		education facilities with negative effects on this objective.	<p>CS 3: Settlement Strategy - planned growth around the excluded villages will take into account infrastructure capacity.</p> <p>CS 12: Infrastructure Delivery – suitable provision will be made for new or improved infrastructure.</p>	

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Welwyn Hatfield Emerging Core Strategy Sustainability Appraisal

SA Matrix A2.2: Spatial Distribution Option 4: Growth focused mainly towards Welwyn Garden City and Hatfield

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
Long-term Objective 1: Health Improvement				
...lead to reduced health inequalities, and in particular improve the health of those living in communities characterised by relatively poor health? (1.1)	Welwyn Garden City	Wards on the eastern side of WGC are characterised by higher levels of multiple deprivation than those wards on the western side of WGC. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation within WGC. Minor positive effects on this objective but with uncertainty relating to the actual development location.	None required.	+?
	Hatfield	Hatfield is characterised by some of the borough's highest areas of multiple deprivation although other areas are less deprived. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation. Minor positive effects on this objective but with uncertainty relating to the actual development location.	None required.	+?
	Large excluded villages	Limited growth within and around Welwyn, including the redevelopment of a major developed site in the green belt close to the	None identified.	+/-0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		village, could help to maintain viability of existing GP surgery (minor positive effect) and will still be fairly well related to the more extensive facilities of WGC. Negligible development at other Large Excluded Villages (no effect).		
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...lead to improved health for all? (1.2)		This option is not expected to have an effect on this objective	None required.	0
Long-term Objective 2: Safer Communities				
...reduce opportunities for crime and anti-social behaviour, and reduce fear of crime? (2.1)		This option is not expected to have an effect on this objective	None required.	0
...ensure there is no increase in flood risk to people or property, taking into account climate change? (2.2)	Welwyn Garden City	The existing urban area of WGC is not generally subject to fluvial flood risk so that development in existing urban areas will have positive effects on this objective. Land to the north and north east of WGC sits within flood risk areas associated with the River Mimram; land to the south and south west of WGC is	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		subject to flood risk associated with the River Lea. Any potential increase in flood risk will be determined by the locations selected for development outside the existing urban area resulting in uncertain effects on this objective.		
	Hatfield	The existing urban area of Hatfield is not generally subject to fluvial flood risk so that development in existing urban areas will have positive effects on this objective. Land to the north and north-east of Hatfield is subject to flood risk associated with the River Lea whilst an area to the west of the town lies within high risk Flood Zones associated with a tributary of the River Colne. Any potential increase in flood risk will be determined by the locations selected for development outside the existing urban area resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?
	Large excluded villages	Some land in Welwyn village lies within Flood Zones 2 or 3, these flood risk areas being associated with the River Mimram. Any potential increase in flood risk will be determined by locations selected for development (uncertain effect). A Major Developed Site in the Green Belt close to Welwyn village is in Flood Zone 1. Development here would help to ensure no increase in flood risk (significant positive effect). Negligible development at other Large Excluded Villages (no effect).	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
Long-term objective 3: Good Citizenship				
...encourage involvement of the public in the planning process? (3.1)		This option is not expected to have an effect on this objective	None required.	0
Long-term objective 4: Improving the environment				
...significantly reduce greenhouse gas emissions from built development? (4.1)		This objective is more likely to be affected by the scale of development and policies to reduce greenhouse gas emissions through the design of the built environment rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...significantly reduce greenhouse gas emissions from transport? (4.2)	Welwyn Garden City	Development within the existing urban area of WGC has the potential to provide sustainable access to services and facilities within WGC and to rail and bus links to those in other settlements with significant positive effects on this objective. Development on the edge of the town would generally be relatively well related to existing services and facilities within WGC, compared to development	Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy. CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct	++/++?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>around smaller settlements or in the countryside, facilitating sustainable travel choices and resulting in minor positive effects on this objective. Most of the land around WGC is also well related to the A1(M) and major A roads with the possibility that new residents may choose to travel by car, resulting in uncertainty of the positive effect.</p>	<p>linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)</p>	
	Hatfield	<p>Development within the existing urban area of Hatfield has the potential to provide sustainable access to services and facilities within the town although the position of the rail station on the eastern edge of the town reduces its accessibility to development in the western part of the existing urban area. Nevertheless, the significant development provided for in the existing urban area under this option is judged to have significant positive effects on this objective.</p> <p>In respect of new development outside the urban area of Hatfield, levels of accessibility to existing services and facilities within Hatfield will generally be relatively good, facilitating sustainable travel choices and resulting in minor positive effects on this objective. This effect is uncertain because it will depend on the location of development (e.g. west of Ellenbrook is in a deficit area for GPs, schools and local shopping facilities and because most of the land around Hatfield is also well related to the A1(M) and major A</p>	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)</p>	++/++?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		roads, presenting the possibility that new residents may choose to travel by car.		
	Large excluded villages	<p>Development in Welwyn village would be relatively well related to the facilities at the village centre increasing the likelihood of residents travelling by cycle or on foot to access facilities. The redevelopment of a Major Developed Site in the Green Belt close to Welwyn village would be close enough to village facilities for cycle or bus access but the proximity to the A1(M) could also encourage journeys by car (minor positive uncertain effect). Overall, there is the potential to reduce greenhouse gas emissions from transport if public transport and cycling facilities are supported and promoted.</p> <p>Scale of development at other Large Excluded Villages is judged to be negligible (no effect).</p>	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes).</p>	+?/0
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...avoid and reduce air pollution? (4.3)	Welwyn Garden City	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies	++/+?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
			described under objective 4.2.	
	Hatfield	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	++/+?
	Large excluded villages	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	+?/0
	Small excluded villages and settlements	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance open space and landscape character, retaining local distinctiveness? (4.4)	Welwyn Garden City	This option would direct housing growth towards WGC, a large proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of two broad locations around WGC. One of these, broad location A (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North East of Welwyn Garden City BLG1 and is assessed separately. The second broad location B (identified at the Issues and Options consultation) was sub-divided into five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one, medium for three and medium-high for one. Landscape effects remain uncertain until sites are selected.</p>	<p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will incorporate landscaping which uses high quality local materials and reflects local character.</p>	
	Hatfield	<p>This option would direct housing growth towards Hatfield, a proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of three broad locations around Hatfield. Broad location C</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will</p>	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>(identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North West of Hatfield BLG2. Broad location D (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Safeguarded Land to the west of Hatfield. Both of these are separately assessed in the SA Report. The third landscape area, broad location E West of Ellenbrook and Roehyde.(identified at Issues and Options consultation) was sub divided into a number of landscape areas. Of the areas which have been surveyed one was assessed as having medium capacity to accept growth whilst others were of low capacity. The fourth landscape area, broad location F South of Hatfield (identified at the Issues and Options consultation) was sub-divided into five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one and medium for four. Landscape effects remain uncertain until sites are selected.</p>	<p>incorporate landscaping which uses high quality local materials and reflects local character.</p>	
	Large excluded villages	<p>Development within large excluded villages through the use of previously developed land would help to protect open space. The redevelopment of a Major Developed Site in the Green Belt close to Welwyn village would also avoid loss of open space. (Significant positive effect on open space). Landscape</p>	<p>Potential negative effects of this policy will be reduced by policies on: CS 20 Villages and Rural Areas – requirement for development to respect the setting, form and character of the settlement and surrounding landscape.</p>	++/?/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		effects would be uncertain as the Landscape Sensitivity and Capacity Study (WHBC, 2012) did not cover this Major Developed Site in the Green Belt. Negligible development around other Large Excluded Villages (no effect).	Introductory text includes local objectives for villages and rural parishes. CS 11 Protection of Critical Assets – requirement for protection of natural assets including landscape. CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character.	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance the Borough's character, sense of place and local distinctiveness, historic and cultural assets? (4.5)	Welwyn Garden City	Land within and around WGC contains or lies adjacent to a number of Areas of Archaeological Significance. Most of the town west of the railway line and much of Hall Grove neighbourhood (Beehive) in the south east of the town are conservation areas. These historic and cultural assets could suffer direct loss or damage from housing development within them. In addition, indirect adverse effects could result from inappropriate development within the settings of above-ground historic features. Effects remain uncertain until development sites are selected.	Potential negative effects of this policy will be reduced by policies on: CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character. CS 11 Protection of Critical Assets – requirement for protection of heritage assets.	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>The addition of around 3,150 homes in and around WGC represents a moderate scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.</p>		
	Hatfield	<p>Land within and around Hatfield is less constrained by Areas of Archaeological Significance than that around WGC, although archaeological areas exist to the north and east of the town. In addition, there is a single conservation area in Old Hatfield to the east of the train station. These historic and cultural assets could suffer direct loss or damage if housing development takes place within them. In addition, indirect adverse effects could result from inappropriate development within the settings of above-ground historic features. Effects remain uncertain until development sites are selected.</p> <p>The addition of around 3,290 homes in and around Hatfield represents a major scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.		
	Large excluded villages	<p>The centre of Welwyn village is a conservation area and much of the village is an Area of Archaeological Significance. New development in the village or the redevelopment of a Major Developed Site could impact the settings of historic assets unless carefully controlled. Mitigation is provided, however, by policies CS 9 and CS 11, resulting in a neutral effect on historic and cultural assets.</p> <p>Development of around 276 dwellings in and around Welwyn represents a moderate scale of change. Effects on character and sense of place will depend on the layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5.</p> <p>Negligible development at other Large Excluded Villages (no effect).</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	0/?
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance biodiversity, taking into account the impacts of climate change? (4.6)	Welwyn Garden City	Two SSSIs are located in or around WGC - Sherrardspark Wood to the north west and Tewinbury to the north east. Additionally, a number of locally designated wildlife sites are present, mostly around the town's periphery. The biodiversity features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface run-off. Development around WGC would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall, biodiversity effects of development around WGC remain uncertain until sites are selected.	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	?
	Hatfield	Significant parts of the northern, eastern and southern boundaries of Hatfield are constrained by locally designated wildlife sites with some smaller sites also present within the urban boundary. The biodiversity features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface run-off. Development around Hatfield would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall,	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		biodiversity effects of development around WGC remain uncertain until sites are selected.		
	Large excluded villages	A number of locally designated wildlife sites, including Danesbury Park to the north and Singlers Marsh/ Fulling Mill Meadow along the River Mimram, are located around Welwyn village. The biodiversity features of these sites may be vulnerable to visitor disturbance/damage or contaminated surface run-off associated with development in the village but mitigation is provided by Policies CS 4 and CS 11. No particular effects on biodiversity are expected from development of the Major Redeveloped Site provided that existing woodland is conserved. Negligible development at other Large Excluded Villages (no effect).	Potential negative effects of this policy will be reduced by policies on: Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure. CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.	0
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...reduce water consumption, and provide for reliable sources of water supply even in drought conditions? (4.7)		This objective is more likely to be affected by the scale of development and policies to reduce water consumption rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...avoid water pollution? (4.8)	Welwyn Garden City	Land in and around WGC lies within the catchments of the Mill Green and Rye Meads WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites within the catchments of the River Lea or River Mimram to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Hatfield	Land in and around Hatfield lies within the catchments of the Mill Green and Maple Lodge WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites within the catchments of the River Lea or River Colne to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Large excluded villages	Land in and around Welwyn village lies close to and within the catchment of Rye Meads WwTW. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from	-/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>issues in the catchment of this WwTW. Resolution of these issues could affect the timing and/or viability of housing at this location. (minor negative effect)</p> <p>Negligible development at other Large Excluded Villages (no effect).</p>	<p>development that would threaten its quality.</p> <p>CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.</p>	0
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...minimise the amount of waste generated and maximise the re-use, recycling or composting of waste that cannot be reduced? (4.9)		This objective is more likely to be affected by the scale of development and policies to manage waste rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...promote the conservation and sustainable use of productive agricultural land and maximise the sustainable use of previously developed land? (4.10)	Welwyn Garden City	Development within the existing urban area of WGC would have significant positive effects on this objective. Almost all of the land around WGC lies within Agricultural Land Classification grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable	<p>Potential negative effects of this policy would be reduced by application of policy:</p> <p>CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.</p>	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		to determine whether the land is grade 3a (BMV) or grade 3b and because the distribution options do not identify development sites.		
	Hatfield	Development within the existing urban area of Hatfield would have significant positive effects on this objective. With the exception of land to the south of Hatfield, most of the land around the town lies within Agricultural Land Classification grade 2 or grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the grade 3 land is grade 3a (BMV) or grade 3b and because the distribution options do not identify development sites.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
	Large excluded villages	Development within the existing urban area of Welwyn or the redevelopment of a Major Developed Site in the Green Belt in close proximity to the village will avoid potential loss of productive agricultural land elsewhere. (significant positive effect) Negligible development at other Large Excluded Villages (no effect).	None required.	++/0
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
Long-term Objective 5: Decent Housing				
...provide the right amount, type and tenure of housing to meet identified local needs? (5.1)	Welwyn Garden City	Development in and around WGC will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Hatfield	Development in and around Hatfield will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Large excluded villages	Development in Welwyn village and the redevelopment of a Major Developed Site in the Green Belt in close proximity to the village will help to meet housing requirements, including for affordable housing, help newly formed households to remain in village communities with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None identified.	++/-

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>Other large villages have a poorer tenure mix than Welwyn village and have absorbed much less growth in the past. The negligible development provided at these villages under this option therefore presents few opportunities to secure a mix of types and tenure of housing at these locations (minor negative effect).</p> <p>Overall, a mixed effect.</p>		
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, presenting few opportunities to meet local housing need.	None identified.	-
	Rest of the Borough	Negligible development at these types of settlement under this option, presenting few opportunities to meet local housing need.	None identified.	-
Long-term objective 6: A thriving economy				
...ensure the supply, location and quality of business and employment sites reflects the needs of local businesses and encourages a mixed and greener economy? (6.1)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...encourage economic investment in those areas most in need of regeneration, in a way that will benefit those most in need of rewarding employment? (6.2)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0
...enhance the vitality and attraction of Welwyn Garden City and Hatfield town retail centres? (6.3)	Welwyn Garden City	Development in the existing urban area of WGC will provide additional potential customers and employees to support regeneration of the retail centre, resulting in significant positive effects on this objective. Development on the edge of WGC will be some distance from the town's main retail centre but those seeking larger shops are nevertheless likely to travel into WGC town centre, helping to improve the viability of existing and new retail outlets, with minor positive effects on this objective. The amount of development proposed on safeguarded land would support its own convenience shop and enhance neighbourhood facilities for the adjoining neighbourhood. Convenience shopping from a smaller urban extension is likely to occur at existing shops in the outer neighbourhoods of WGC.	None required.	++/+
	Hatfield	Development in the existing urban area of Hatfield will provide additional potential customers and employees to support regeneration of the town centre, resulting in significant positive effects on this objective. Development on the edge of Hatfield will be	None required.	++/+/-

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>some distance from the town centre but those seeking larger shops could be drawn to Hatfield or WGC town centre, helping to improve the viability of existing and new retail outlets at these centres, with minor positive effects on this objective. An exception to this would be development on the western edge of Hatfield, where residents may choose to travel into St Albans for comparison shopping, resulting in minor negative effects on this objective. The amount of development proposed in the green belt is large enough to support creation of a new neighbourhood with its own convenience shops.</p>		
	Large excluded villages	<p>Although Welwyn village is separated from WGC by the A1(M) the two settlements are located very close to each other and bus links are good. Residents of new housing around Welwyn village who are seeking larger shops are likely to travel into WGC town centre, helping to improve the viability of existing and new retail outlets at this centre. Convenience shopping is likely to occur at existing shops in Welwyn village. (minor positive effect)</p> <p>Negligible development at other Large Excluded Villages (no effect).</p>	None required.	+/-0
	Small excluded	Negligible development at these types of settlement under this option, thus no effect	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages and settlements	predicted.		
	Rest of the Borough	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
...sustain rural communities and their economies, small businesses and other rural diversification, while protecting rural character? (6.4)	Welwyn Garden City	Development in and around WGC is not expected to have an effect on this objective.	None required.	0
	Hatfield	Development in and around Hatfield is not expected to have an effect on this objective.	None required.	0
	Large excluded villages	Development in and around Welwyn will help to ensure the viability of the facilities and infrastructure needed by the community of this settlement and its immediate surroundings e.g. shops, primary schools. Negligible development at other Large Excluded Villages (minor negative impact on sustaining rural economy).	None identified.	++/-
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, resulting in minor negative effect on sustaining rural economy.	None identified.	-
	Rest of the Borough	Negligible development in this area under this option, resulting in minor negative effect on rural economy.	None identified.	-
...avoid the sterilisation of mineral resources? (6.5)	Welwyn Garden City	There are no permitted or preferred extraction sites on land immediately surrounding WGC. However, most land around in the borough lies within a sand and	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		gravel belt. Sterilisation of these mineral reserves could potentially result from development around WGC but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	strategic value to the county's Minerals Plan will not be sterilised.	
	Hatfield	There are permitted and preferred minerals extraction sites present to the west and north-west of Hatfield whilst the remainder of land around the town is lies within the sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around Hatfield but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised. CS19 states that minerals will be extracted from land to the west of the redeveloped part of Hatfield Aerodrome before it is landscaped as a county park or safeguarded for potential development beyond the plan period.	0
	Large excluded villages	There are no existing or preferred extraction sites around Welwyn village. However, most of the land in the borough lies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around the large excluded villages but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the	Negligible development in this area under this	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Borough	option, thus no effect predicted.		
...provide access to training, skills development and lifelong learning to meet identified needs? (6.6)	Welwyn Garden City	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of growth. The scale of growth in the existing urban area (1,847 dwellings) is sufficient to support new primary school provision which, given the commitment in Policy CS12, results in minor positive effects on this objective. Although the scale of growth in the green belt (200 dwellings) or on safeguarded land (700 dwellings) is not sufficiently large to support a new primary school as part of a new neighbourhood, a new school could potentially be provided to serve both the dwellings on safeguarded land at Panshanger and the 400 new dwellings in East Herts.	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+
	Hatfield	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of growth. The scale of growth in the green belt is sufficiently large to support a new primary school as part of a new neighbourhood, resulting in minor positive effects on this objective.	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+
	Large excluded villages	Hertfordshire County Council has stated that new primary school provision will need to be made to cope with an increase in demand for school places that will result from higher	Potential local school capacity issues are mitigated by the following policies: CS 3: Settlement Strategy - planned growth	+/-/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>levels of growth. However, most village schools are at capacity with limited or no scope to expand or with viability concerns over expansion. The planned scale of development at Welwyn village is not sufficiently large to support a new primary school as part of a new neighbourhood. The effectiveness of mitigating policies to meet the needs of new development (see column to right) will be linked to expansion opportunities and viability.</p> <p>Negligible development at other Large Excluded Villages (no effect).</p>	<p>around the excluded villages will take into account infrastructure capacity.</p> <p>CS 12: Infrastructure Delivery – suitable provision will be made for new or improved infrastructure.</p>	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0

S:\4200\4274 Welwyn Hatfield Core Strategy SA SEA HRA\4274.01 - SA_SEA\Documents\Early 2012 Consultation\Appraisal Matrices\Latest matrices at 21 Sep 2012\Alternative spatial distributions\4274_01_Option_4_WGC_Hat_20120912.docx

Welwyn Hatfield Emerging Core Strategy Sustainability Appraisal September 2012

SA Matrix A2.3: Spatial Distribution Option 6: Growth mainly directed towards Welwyn Garden city and Hatfield with limited growth around large excluded villages (Brookmans Park, Cuffley, Welham Green, Welwyn)

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
Long-term Objective 1: Health Improvement				
...lead to reduced health inequalities, and in particular improve the health of those living in communities characterised by relatively poor health? (1.1)	Welwyn Garden City	Wards on the eastern side of WGC are characterised by higher levels of multiple deprivation than those wards on the western side of WGC. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation. Minor positive effects on this objective but with uncertainty relating to the actual location of development.	None required.	+?
	Hatfield	Hatfield contains some of the borough's highest areas of multiple deprivation although other areas are less deprived. The effect on existing health deprivation through the provision of new, well designed housing is uncertain, being dependent on the particular sites selected and their relative relationship to existing facilities for healthcare and outdoor recreation. Minor positive effects on this objective but with uncertainty relating to the actual development location.	None required.	+?
	Large excluded	Limited growth around these villages could help to maintain viability of existing primary	None identified.	+/-

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages	healthcare facilities (minor positive effect) but would be less well related to the more extensive facilities of WGC and Hatfield to varying degrees (minor negative effect).		
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...lead to improved health for all? (1.2)		This option is not expected to have an effect on this objective.	None required.	0
Long-term Objective 2: Safer Communities				
...reduce opportunities for crime and anti-social behaviour, and reduce fear of crime? (2.1)		This option is not expected to have an effect on this objective	None required.	0
...ensure there is no increase in flood risk to people or property, taking into account climate change? (2.2)	Welwyn Garden City	The existing urban area of WGC is not generally subject to fluvial flood risk so that development in existing urban areas will have positive effects on this objective. Land to the north and north east of WGC sits within flood risk areas associated with the River Mimram; land to the south and south west of WGC is subject to flood risk associated with the River Lea. Any potential increase in flood risk due to development beyond the existing urban area will be determined by the locations selected for development resulting in	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		uncertain effects on this objective.		
	Hatfield	The existing urban area of Hatfield is not generally subject to fluvial flood risk so that development in existing urban areas will have positive effects on this objective. Land to the north and north-east of Hatfield is subject to flood risk associated with the River Lea whilst an area to the west of the town lies within high risk Flood Zones associated with a tributary of the River Colne. Any potential increase in flood risk due to development beyond the existing urban area will be determined by the locations selected for development, resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	++/?
	Large excluded villages	The urban area of Welwyn and land on the periphery of the other Large Excluded Villages, have some land in Flood Zones 2 or 3. Any potential increase in flood risk will be determined by the locations selected for development, resulting in uncertain effects on this objective.	Mitigation is likely to be offered by Policy CS 11 which requires avoidance of development in Flood Zones 2 and 3 unless it is for a compatible use.	?
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
Long-term objective 3:				

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
Good Citizenship				
...encourage involvement of the public in the planning process? (3.1)		This option is not expected to have an effect on this objective	None required.	0
Long-term objective 4: Improving the environment				
...significantly reduce greenhouse gas emissions from built development? (4.1)		This objective is more likely to be affected by the scale of development and policies to reduce greenhouse gas emissions through the design of the built environment rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...significantly reduce greenhouse gas emissions from transport? (4.2)	Welwyn Garden City	Development within the existing urban area of WGC has the potential to provide sustainable access to services and facilities within WGC and to rail and bus links to those in other settlements with significant positive effects on this objective. Development on the edge of the town would generally be relatively well related to existing services and facilities within WGC, compared to development around smaller settlements or in the countryside, facilitating sustainable travel choices and resulting in minor positive effects on this objective. Most of the land around WGC is also well related to the A1(M) and main A roads. Uncertainty relates to the possibility that new residents may choose to travel by car.	Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy. CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists. CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Hatfield	<p>Development within the existing urban area of Hatfield has the potential to provide sustainable access to services and facilities within the town although the position of the rail station on the eastern edge of the town reduces its accessibility to development in the western part of the existing urban area. There are good bus links to other towns. Nevertheless, the significant development provided for in the existing urban area under Option 6 is judged to have significant positive effects on this objective.</p> <p>In respect of new development outside the urban area of Hatfield, levels of accessibility to existing services and facilities within Hatfield will generally be relatively good, facilitating sustainable travel choices and resulting in minor positive effects on this objective. This effect is uncertain because it will depend on the location of development and any existing deficits in services such as GPs, schools and local shopping facilities and because most of the land around Hatfield is also well related to the A1(M) and major A roads, presenting the possibility that new residents may choose to travel by car.</p>	<p>Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.</p> <p>CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists.</p> <p>CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)</p>	++/+?
	Large excluded villages	Development around Large Excluded Villages would be reasonably well related to existing village centres with a limited range of community facilities, amenity open space, open countryside and some employment	Some mitigation to increased greenhouse gas emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy.	+?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		opportunities locally. Overall, there is the potential to reduce greenhouse gas emissions from transport if public transport and cycling facilities are supported and promoted, otherwise proximity to main roads and lack of larger services and facilities could encourage journeys by car.	CS 9 Good Quality Design, supporting text - walkable neighbourhoods should be designed with safe, accessible and direct linkages for pedestrians and cyclists. CS 12 Infrastructure Delivery – suitable provision for new or improved infrastructure, required to meet the levels of growth (supporting text defines physical infrastructure as including public transport, pedestrian and cycle routes)	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...avoid and reduce air pollution? (4.3)	Welwyn Garden City	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	++/++?
	Hatfield	In relation to air pollution from cars, the same issues apply as discussed under greenhouse gas emissions from transport above.	Some mitigation to increased air pollution emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	++/++?
	Large	In relation to air pollution from cars, the	Some mitigation to increased air pollution	+?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	excluded villages	same issues apply as discussed under greenhouse gas emissions from transport above.	emissions from transport are likely to be provided by continued improvements in vehicle technology driven by national and EU policy as well as the mitigating policies described under objective 4.2.	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance open space and landscape character, retaining local distinctiveness? (4.4)	Welwyn Garden City	<p>Option 6 would direct housing growth towards WGC, a large proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of two broad locations around WGC. One of these, broad location A (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North East of Welwyn Garden City BLG1 and is assessed separately. The second broad location B (identified at the Issues and Options consultation) was sub-divided into</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will incorporate landscaping which uses high quality local materials and reflects local character.</p>	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one, medium for three and medium-high for one. Landscape effects remain uncertain until sites are selected.</p>		
	Hatfield	<p>Option 6 would direct housing growth towards Hatfield, a proportion of which would take place within existing urban areas through the use of previously developed land (significant positive effects on protection of open space) and to largely greenfield sites around the town (significant negative effects on protection of open space).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) assessed potential landscape effects of development of three broad locations around Hatfield. Broad location C (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Neighbourhood Extension North West of Hatfield BLG2. Broad location D (identified at the Issues and Options consultation) appears in the Emerging Core Strategy as Safeguarded Land to the west of Hatfield. Both of these are separately assessed in the SA Report. The third landscape area, broad location E West of Ellenbrook and Roehyde (identified at Issues and Options consultation) was sub divided into a number of landscape areas. Of the</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural (including landscape) assets.</p> <p>CS 9 Good Quality Design - development will incorporate landscaping which uses high quality local materials and reflects local character.</p>	++/--/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>areas which have been surveyed one was assessed as having medium capacity to accept growth whilst others were of low capacity. The fourth broad location, F, South of Hatfield (identified at the Issues and Options consultation) was sub-divided into five landscape areas for which the capacity of the landscape to accommodate development was assessed as low for one, and medium for four. Landscape effects remain uncertain until sites are selected.</p>		
	Large excluded villages	<p>Development around Large Excluded Villages would be on a greenfield land (except for Welwyn where the opportunity exists to identify large previously developed site for housing), resulting in a loss of open space (significant adverse effect on objective 4.4).</p> <p>The Landscape Sensitivity and Capacity Study (WHBC, 2012) found a range of capacities for development around Large Excluded Villages although this did not assess all land surrounding these villages. Effects of development on landscape character remain uncertain until sites are selected.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 20 Villages and Rural Areas – requirement for development to be small scale and to respect the setting, form and character of the settlement and surrounding landscape.</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local distinctive character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of natural environment, including landscape.</p>	--/?
	Small excluded villages and	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	settlements			
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance the Borough's character, sense of place and local distinctiveness, historic and cultural assets? (4.5)	Welwyn Garden City	<p>Land within and around WGC contains or lies adjacent to a number of Areas of Archaeological Significance. Most of the town to the west of the railway line and much of Hall Grove neighbourhood (Beehive) in the south east of the town are conservation areas. These historic and cultural assets could suffer direct loss or damage if housing development takes place within them. Indirect adverse effects could result from inappropriate development within the settings of above-ground historic features. Effects remain uncertain until development sites are selected.</p> <p>The addition of around 3,150 homes in and around WGC represents a moderate scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Hatfield	<p>Land within and around Hatfield is less constrained by Areas of Archaeological Significance than that around WGC, although archaeological areas exist to the north and east of the town. In addition, there is a single conservation area in Old Hatfield to the east of the train station. These historic and cultural assets could suffer direct loss or damage if housing development takes place within them. In addition, indirect adverse effects could result from inappropriate development within the settings of above-ground historic features. Effects remain uncertain until development sites are selected.</p> <p>The addition of around 3,110 homes in and around Hatfield represents a major scale of change. Effects on character and sense of place will depend on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5. Mitigation is provided by this policy's reference to the design requirements of the Quality of New Development policy.</p>	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design which reflects local distinctive character and encourages a strong sense of place; landscaping which uses high quality local materials and reflects local character.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	?
	Large excluded villages	The levels of housing growth set out in Table 5 of the Housing Background Paper Part 2 represent a moderate scale of growth for each of the Large Excluded Villages. Effects on character and sense of place will depend	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>CS 9 Good Quality Design – urban design requirements, including reflecting local</p>	0/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>on the location, masterplanning / layout and design quality of new development and how these respond to existing character, resulting in an uncertain effect on objective 4.5.</p> <p>Some Large Excluded Villages contain significant historic and cultural assets, for example the centre of Welwyn village is a conservation area and much of the village is an Area of Archaeological Significance. Although development could theoretically lead to direct loss or impact the settings of historic assets, mitigation is provided by policies CS 9 and CS 11, resulting in a neutral effect on historic and cultural assets.</p>	<p>distinctive character and encouraging a strong sense of place.</p> <p>CS 11 Protection of Critical Assets – requirement for protection of heritage assets.</p>	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...protect and enhance biodiversity, taking into account the impacts of climate change? (4.6)	Welwyn Garden City	Two SSSIs are located in or around WGC - Sherrardspark Wood to the north west and Tewinbury to the north east. Additionally, a number of locally designated wildlife sites are present, mostly around the town's periphery. The biodiversity features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirements for protection of natural</p>	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		run-off. Development around WGC would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall, biodiversity effects of development around WGC remain uncertain until sites are selected.	environment and water quality.	
	Hatfield	Significant parts of the northern, eastern and southern boundaries of Hatfield are constrained by locally designated wildlife sites with some smaller sites also present within the urban boundary. The biodiversity features of these sites could be subject to direct loss/damage from development and may be vulnerable to development-related effects such as visitor disturbance/damage or contaminated surface run-off. Development around Hatfield would be on greenfield land which could lead to loss of an undesignated area of biodiversity/habitat interest. Overall, biodiversity effects of development around Hatfield remain uncertain until sites are selected.	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets – requirements for protection of natural environment and water quality.</p>	?
	Large excluded villages	A SSSI (Water End Swallow Holes) is located approximately halfway between Welham Green and Brookmans Park and Northaw Great Wood SSSI is located to the north east of Cuffley. A number of locally designated wildlife sites are located around the Large Excluded Villages. The biodiversity features of these sites may be vulnerable to visitor disturbance/damage or contaminated surface	<p>Potential negative effects of this policy will be reduced by policies on:</p> <p>Policy CS 4 Green Belt boundaries - the Council will work with others to ensure that development in this location is supported by the appropriate green infrastructure.</p> <p>CS 11 Protection of Critical Assets –</p>	?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		run-off associated with development in the villages although mitigation is provided by Policies CS 4 and CS 11. Biodiversity effects of development remain uncertain until sites are selected.	requirements for protection of natural environment and water quality.	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...reduce water consumption, and provide for reliable sources of water supply even in drought conditions? (4.7)		This objective is more likely to be affected by the scale of development and policies to reduce water consumption rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...avoid water pollution? (4.8)	Welwyn Garden City	Land in and around WGC lies within the catchments of the Mill Green and Rye Meads WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites within the catchments of the River Lea or River Mimram to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Hatfield	Land in and around Hatfield lies within the catchments of the Mill Green and Maple Lodge WwTWs. As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchments of both these WwTWs. Resolution of these issues could delay the delivery of housing at this location. There is also the potential for contaminated surface run-off from sites within the catchments of the River Lea or River Colne to enter these water courses although this latter potential effect remains uncertain until development site locations are selected.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Large excluded villages	Land in and around the Large Excluded Villages village lies within the catchments of Rye Meads WwTW (Welwyn), Maple Lodge WwTW (Brookmans Park, Welham Green) and Deephams WwTW (Cuffley). As discussed in detail under the SA of policy CS 2 Meeting the Needs for Growth, there are sewerage infrastructure capacity issues in the catchment of all of these WwTWs, although effects on the capacity of Deephams are expected to be negligible. Resolution of these issues could affect the timing and/or viability of housing at this location.	The following policies will help to mitigate the potential negative effects of this policy: CS 11 Protection of Critical Assets - the water environment will be protected from development that would threaten its quality. CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure required to meet the levels of growth identified.	-/?
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...minimise the amount of waste generated and maximise the re-use, recycling or composting of waste that cannot be reduced? (4.9)		This objective is more likely to be affected by the scale of development and policies to manage waste rather than the spatial distribution of development within the borough therefore it cannot usefully be appraised.	None required.	0
...promote the conservation and sustainable use of productive agricultural land and maximise the sustainable use of previously developed land? (4.10)	Welwyn Garden City	Development within the existing urban area of WGC would have significant positive effects on this objective. Almost all of the land around WGC lies within Agricultural Land Classification grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the land is grade 3a (BMV) or grade 3b and because the distribution options do not identify development sites.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
	Hatfield	Development within the existing urban area of Hatfield would have significant positive effects on this objective. With the exception of land to the south of Hatfield, most of the land around the town lies within Agricultural Land Classification grade 2 or grade 3. Effects on best and most versatile (BMV) agricultural land due to development outside of the existing urban area are uncertain since data are unavailable to determine whether the grade 3 land is grade 3a (BMV) or grade 3b and because the distribution options do not identify development sites.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Large excluded villages	Development within the existing urban area of Welwyn and through the redevelopment of a Major Developed Site in the Green Belt close to Welwyn village will avoid potential loss of productive agricultural land elsewhere (significant positive effect on SA objective). Effects on best and most versatile (BMV) agricultural land are uncertain in respect of other Large Excluded Villages which are surrounded by some grade 2 and some grade 3 land. Data are unavailable to determine whether the land is grade 3a (BMV) or grade 3b and the exact location of development sites in relation to the BMV land is not dealt with in the Emerging Core Strategy as this would fall to a Site Allocations document.	Potential negative effects of this policy would be reduced by application of policy: CS 11 Protection of Critical Assets – requirement for protection of best and most versatile land.	++/?
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
Long-term Objective 5: Decent Housing				
...provide the right amount, type and tenure of housing to meet identified local needs? (5.1)	Welwyn Garden City	Development in and around WGC will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Hatfield	Development in and around Hatfield will help to meet local housing requirements, a proportion of which would help to meet a need for affordable housing with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Large excluded villages	Development in and around Large Excluded Villages will help to address low levels of past growth and by meeting local housing requirements, including for affordable housing, help newly formed households to remain in village communities with a significant positive effect on objective 5.1. Type and tenure of housing is assessed under the SA of Policy CS 7 Type and Mix of Housing.	None required.	++
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, presenting few opportunities to meet local housing need.	None identified.	-
	Rest of the Borough	Negligible development in this area under this option, presenting few opportunities to meet local housing need.	None identified.	-
Long-term objective 6: A thriving economy				

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
...ensure the supply, location and quality of business and employment sites reflects the needs of local businesses and encourages a mixed and greener economy? (6.1)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0
...encourage economic investment in those areas most in need of regeneration, in a way that will benefit those most in need of rewarding employment? (6.2)		This spatial option is primarily focussed on the spatial distribution of housing rather than the amount, location and type of economic development therefore this objective cannot usefully be appraised.	None required.	0
...enhance the vitality and attraction of Welwyn Garden City and Hatfield town retail centres? (6.3)	Welwyn Garden City	Development in the existing urban area of WGC will provide additional potential customers and employees to support regeneration of the town centre, resulting in significant positive effects on this objective. Development on the edge of WGC will be some distance from the town's main retail centre but those seeking larger shops are nevertheless likely to travel into WGC town centre (or Hatfield town centre for development sites on the southern edge of WGC), helping to improve the viability of existing and new retail outlets, with minor positive effects on this objective. The amount of development proposed on safeguarded land around WGC would support its own convenience shop and enhance neighbourhood facilities for the adjoining	None required.	++/+

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		neighbourhood. Convenience shopping from a smaller urban extension is likely to occur at existing shops in the outer neighbourhood centres of WGC.		
	Hatfield	Development in the existing urban area of Hatfield will provide additional potential customers and employees to support regeneration of the retail centre, resulting in significant positive effects on this objective. Development on the edge of Hatfield will be some distance from the town centre but those seeking larger shops could be drawn to Hatfield or WGC town centre, helping to improve the viability of existing and new retail outlets at these centres, with minor positive effects on this objective. An exception to this would be development on the western edge of Hatfield, where residents may choose to travel into St Albans for comparison shopping, resulting in minor negative effects on this objective. The amount of development proposed in the green belt is large enough to support creation of a new neighbourhood with its own convenience shops.	None required.	++/+/-
	Large excluded villages	Welwyn village, Brookmans Park and Welham Green, although located at some distance from WGC or Hatfield town centres are nevertheless likely to contribute to comparison shopping in those centres (minor positive effect on SA objective). Uncertainty	None required.	+?/0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
		<p>exists as residents of Brookmans Park and Welham Green may also be drawn to Potters Bar.</p> <p>Development around Cuffley is not expected to have an effect on this objective. The village is a considerable distance from these town centres and residents would be more likely to use facilities and services in Cheshunt, than Hatfield or Welwyn Garden City.</p>		
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
...sustain rural communities and their economies, small businesses and other rural diversification, while protecting rural character? (6.4)	Welwyn Garden City	Development in and around WGC is not expected to have an effect on this objective.	None required.	0
	Hatfield	Development in and around Hatfield is not expected to have an effect on this objective.	None required.	0
	Large excluded villages	Development in and around Large Excluded Villages will help to ensure the viability of the facilities and infrastructure needed by the communities of these settlements and their immediate surroundings e.g. shops and businesses.	None required.	++

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, resulting in minor negative effect on sustaining rural economy.	None identified.	-
	Rest of the Borough	Negligible development in this area under this option, resulting in minor negative effect on sustaining rural economy.	None identified.	-
...avoid the sterilisation of mineral resources? (6.5)	Welwyn Garden City	There are no permitted or preferred extraction sites on land immediately surrounding WGC. However, most land in the borough lies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around WGC but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	0
	Hatfield	There are permitted and preferred minerals extraction sites present to the west and north-west of Hatfield whilst the remainder of land around the town is lies within the sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around Hatfield but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	Supporting text to the Settlement Strategy states that development at broad locations or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised. CS19 states that minerals will be extracted from land to the west of the redeveloped part of Hatfield Aerodrome before it is landscaped as a county park or safeguarded for potential development beyond the plan period.	0
	Large excluded	There are no existing or preferred extraction sites around Welwyn village, Brookmans Park,	Supporting text to the Settlement Strategy states that development at broad locations	0

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	villages	Welham Green or Cuffley. However, most land in the borough lies within a sand and gravel belt. Sterilisation of these mineral reserves could potentially result from development around the large excluded villages but mitigating text within the Core Strategy (see right) should ensure that negative effects are avoided.	or on safeguarded land will be phased to ensure that any mineral reserves of strategic value to the county's Minerals Plan will not be sterilised.	
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0
...provide access to training, skills development and lifelong learning to meet identified needs? (6.6)	Welwyn Garden City	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of growth. The scale of growth in the existing urban area (1,847 dwellings) is sufficient to support new primary school provision which, given the commitment in Policy CS12, results in minor positive effects on this objective. Although the scale of growth in the green belt (200 dwellings) or on safeguarded land (700 dwellings) is not sufficiently large to support a new primary school as part of a new neighbourhood, a new school could potentially be provided to serve both the dwellings on safeguarded land at Panshanger and the 400 new dwellings in East Herts.	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+

SA Question: Will the policy...	Settlement type	Likely Effects	Mitigation	Residual Effects Score
	Hatfield	Hertfordshire County Council has stated that new primary school provision will be required to cope with an increase in demand for school places that will result from higher levels of growth. The scale of growth in the green belt is sufficiently large to support a new primary school as part of a new neighbourhood, resulting in minor positive effects on this objective.	CS 12 Infrastructure Delivery - the council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified.	+
	Large excluded villages	<p>Development in and around the Large Excluded Villages could potentially use existing local schools, although it is understood from WHBC that existing schools are generally at capacity with limited or no scope to expand and with some viability concerns over expansion.</p> <p>The effectiveness of mitigating policies to meet the needs of new development (see column to right) will be linked to expansion opportunities and viability. The villages are not as well located to opportunities for higher and further education as the towns.</p>	<p>Potential local school capacity issues are mitigated by the following policies:</p> <p>CS 3: Settlement Strategy - planned growth around the excluded villages will take into account infrastructure capacity.</p> <p>CS 12: Infrastructure Delivery – suitable provision will be made for new or improved infrastructure.</p>	+/-/?
	Small excluded villages and settlements	Negligible development at these types of settlement under this option, thus no effect predicted.	None required.	0
	Rest of the Borough	Negligible development in this area under this option, thus no effect predicted.	None required.	0

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