Appendix F – Matrices showing appraisal of differing spatial strategies for delivering residential development at the end of the plan period.

- Employment land
- 2 or 3 medium sized extensions
- 1 large extension
- Several small extensions
- Stand alone settlement of 2000
- Stand alone settlement of 5000

Appraisal of developing employment land				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough – census data shows household sizes are remaining large indicating a strong family market. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	+	Affordable housing would be delivered at 30%, this would in some way address the AH shortage although is would not fulfil the current level of need. In the event of land being allocated as G&T sites, it is likely that the cost of this land would be prohibitive for travelling communities to purchase.	NA
To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an ageing population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas. There is a shortage of school places.	?	This would depend on the location of the development, whether it was close to healthcare facilities, schools, green space etc.	Planning for healthcare, education and healthy lifestyles.
To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	-	Crime would be addressed as a design issue. The loss of employment land may exacerbate poverty and social exclusion.	Design should be used to minimise crime. Employment land could be provided elsewhere, such as in the Green Belt.
To minimising the harm from flooding	There are areas identified through the SFRA where flooding is an issue.	?	This will depend on the areas selected for development. The area chosen should be guided by the SFRA and incorporate	Areas selected through SFRA sequential testing. Incorporate sustainable

			sustainable drainage measures.	drainage measures.
To improve accessibility to all services and facilities	This is a particular issue for the elderly population, and for areas identified as relatively deprived; people who cannot travel far.	?	This would depend on the location of the employment land, and how close it was to services and facilities. The scale of development may not enable the provision of facilities to serve new development.	Proximity to services and facilities should be looked at as part of any allocations.
To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	++	This would enable development to take place on PDL and buildings and limit the need for greenfield development.	NA
To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify contaminated land issues.	?+	Previous employment sites may have land contamination issues, which as a consequence of development be improved.	Contamination would have to be looked at for any selected site.
To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation and the potential to create one (placing dwellings close to pollutants) should be taken into consideration when selecting an area.
To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise Preferential Route (concerning aircraft noise from Gatwick)	?	This will be dependent on the area chosen. The edge of the south of the borough (CS area 3) is impacted from Gatwick airport noise. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level experienced outdoors. Areas subject to high levels of noise from Gatwick and major roads should be avoided.	Noise should be a consideration in the selection of area for development.
To reduce light pollution	There are no significant light issues in the borough.	?	This is dependent on location.	Design of lighting to minimise light spillage.
To improve the water quality	There are groundwater	?	Whether or not this will have an impact on	Design measures

of rivers and groundwater, and maintain an adequate supply of water	issues in Preston. The borough can experience water shortages in times of drought. Reigate and Banstead falls within an area of "serious" water stress[1]. In addition, the Environment Agency's assessment[2] of water availability and the impacts of existing abstraction on the aquatic environment in the catchment shows that the sub catchments are "no water available" or "over licensed". This means that there is limited environmental capacity locally to support further abstraction to meet demand from new development.		water quality and quantity of rivers and groundwater will depend on the location as the topography in the north of the borough is very different to that of the south, and areas in the north have been identified as being under more stress to produce sufficient water supply. Design measures can be used to minimise run-off (pollution) such as petrol interceptors in carparks, and SuDS.	investigated dependent on location.
To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the borough.	+	Development on employment land will reduce the requirement to development on greenfield land, and also gives the opportunity to design in biodiversity habitats and green areas in areas that may currently be at a deficit.	Design measures to enhance biodiversity.
To protect and enhance the natural, archaeological,	There are a number of landscape designations and	+	Development on employment land will reduce the requirement to development on	Consideration of heritage assets.

[1] Environment Agency (2007) Areas of water stress: final classification
[2] As shown in the Catchment Abstraction Management Strategy's (2006)

historic environments and cultural assets	historic and cultural assets in the borough.		greenfield land and will therefore protect landscapes. It is unlikely that development on employment will impact on heritage sites; however this would be assessed on a site by site basis.	
To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents' quality of life.	?	Development of employment land would not necessarily be at a scale to deliver sustainable transport infrastructure. Also, employment land is not necessarily in accessible location and can lead to car-centric development. Again, this is dependent on the location.	Transport linkages should be planned and delivered early in the development process.
To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect in urban areas and increased storm occurrence across the borough (flooding covered in objective 4).	+	Developing on employment land may reduce the need to build on other urban greenspace, which is a positive benefit for climate change adaptation.	Design measures will be required to ensure sufficient adaptation measures are in place.
Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough, however there are higher levels of unemployment in certain areas.	--	Developing employment land will have a negative impact on the provision of local jobs that will be long term. In times of economic growth, the lack of employment land will constrain the ability of this borough to grow.	To mitigate these double negative scorings, employment land would need to be designated elsewhere in the borough.
Support economic growth which is inclusive, innovative and sustainable	There are a lower number of entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.	--	This option would constrain economic growth.	To mitigate these double negative scorings, employment land would need to be designated elsewhere in the borough.
To achieve sustainable production and use of	The South East has a high level of resource	0	(PDL covered above)	

resources	consumption per capita.			
To increase energy efficiency and the production of energy from low carbon technologies, renewable sources and decentralised generation systems	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the county to become one of the lowest carbon areas in the UK.	?	Dependent on the scale and location this option could lend itself to the creation of a decentralised energy network.	NA
Conclusions – This option scores double-negative for two of the SA objectives, and indicates a restriction to economic development and growth should this option be taken forward. If there was an oversupply of employment land in the borough then some could be taken without too much detriment, however this is not the case as the land required for 1,600 homes would far exceed any negligible take of employment land. The only mitigation to these double-negative scores would be to designate other areas of employment land, which may then conflict with housing land supply in any case. The decision could be taken to designate employment areas in the Green Belt, however the employment areas in the Green Belt will not be accessible and may contribute to land contamination issues. There are positive impacts associated with this option, however the negative scoring for the economic pillar of sustainability makes this an unbalanced and unsustainable option, both in the short and long-term.				

Appraisal of two or three medium sized extensions (approximately 500 - 700 dwellings)				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough – census data shows household sizes are remaining large indicating a strong family market. The latest SHMA update (2012) shows there is a need for 828 units of affordable housing per year, and supports a target of 40% AH. The CS sets a target of 30%. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	++	This will provide 30% affordable housing as specified in the CS although this will not meet the identified need in the borough as is the case with all 3 scenarios. The CS indicates that consideration will be given to maximising opportunities for affordable housing delivery in any urban extensions – the viability of this option will be influenced by the level of infrastructure required to deliver the extension. A medium scale extension may give opportunity to allocate land for G, T and TS pitches/plots, as will be the case with 2 – 3 medium extensions.	Work should be carried out to assess viability of increasing affordable housing provision on the extension development to a figure >30% to address the need. Land could be allocated for G, T & TS pitches/plots.
To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an aging population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas. There is a shortage of school places.	?+	Medium sized extensions are less likely to be able to provide healthcare facilities, so any extension would need to be located close to existing facilities. This score is dependent on location. A medium sized extension is unlikely to be able to support any major recreational facilities, so green linkages including cycle and pedestrian paths should be incorporated into the extensions. The scale of development may allow for recreational facilities such as sports pitches, but this will be dependent on location and scheme design (including	Extensions will need to be located close to existing facilities and make the most of green infrastructure. School places will need to be planned for in existing schools.

			whether there is access to existing facilities).	
To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	?+	The size of extensions will not be able to support community facilities or a new school, so any extension would need to be located close to existing facilities and school with adequate capacity to absorb the increase in population. This score is dependent on location. Design measures can be used to curb crime.	Extensions will need to be located close to existing facilities and school. Design should be used to minimise crime.
To minimising the harm from flooding	There are areas identified through the SFRA where flooding is an issue.	?	This will depend on the areas selected for development. The area chosen should be guided by the SFRA.	Areas selected through SFRA sequential testing.
To improve accessibility to all services and facilities	This is an issue for the elderly population, and for areas identified as relatively deprived.	?+	Medium sized extensions may not support new services and facilities so locating the extensions close by to existing facilities will be important. Also, areas of good public transport should be selected to allow travel to services and facilities. For a medium sized extension this scoring is dependent on location.	Areas selected should be close by to existing facilities, and have good public transport links.
To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	--	The majority of land adjoining urban areas is greenfield so this SA objective cannot be fulfilled through SUE development. This will be the case across all three scenarios, however the Core Strategy makes it clear that greenfield development will only be progressed as a 'last resort'.	The best that can be done is to ensure buildings and site layout is designed to be flexible to ensure lifetime use and best use of PDL and buildings in the future.
To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify	?	This is dependent on the area used for development. It is unlikely that land contamination will be issue in greenfield sites, however agricultural soil quality should be considered in selecting an area	Locations should be selected that do not irreversibly impact on top grade agricultural soil. Localised contamination would have

	contaminated land issues.		for development. This will be the case across all three scenarios.	to be a consideration at the site selection/viability testing stage.
To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation should be taken into consideration when selecting a site.
To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise Preferential Route (concerning aircraft noise from Gatwick)	?	This will be dependent on the area chosen for development. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level experienced outdoors. Areas subject to high levels of noise from Gatwick and major roads should be avoided.	Noise should be a consideration in the selection of area for development.
To reduce light pollution	There are no significant light issues in the borough.	0	As development will be impacting on greenfield land, design measures should be taken to ensure light spillage is minimised.	Design of lighting to minimise light spillage.
To improve the water quality of rivers and groundwater, and maintain an adequate supply of water	There are groundwater issues in Preston. The borough can experience water shortages in times of drought.	?	Whether or not this will have an impact on water quality of rivers and groundwater will depend on the location, topography etc. Design measures can be used to minimise run-off such as petrol interceptors in carparks, and SuDS.	Design measures investigated depending on the location.
To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the borough.	?	This is dependent on which areas are selected. There could be less segregation of habitats for 2-3 medium extensions than with one large one however care should still be taken by ensuring wildlife corridors are maintained across the development. Minimising the area of land lost to biodiversity can be achieved through	Design of green/blue space, green roofs etc to minimise areas lost to biodiversity. Trees and hedgerows can be protected, or planted. Wildlife corridors can be maintained across the development.

			design of green and blue space, including green roofs.	
To protect and enhance the natural, archaeological, historic environments and cultural assets	This development will result in the loss of a natural asset (countryside).	?	This will be dependent on the location. Views into the development from nearby landscape designations should be considered. Developing 2-3 medium sites could potentially be less intrusive than one big site but more so than lots of small sites, however, again this is dependent on the sites selected.	Take into account views when deciding on location. The presence of different assets (or lack of) should help prioritise locations for growth. This will require more detailed assessment of e.g. historical/archaeological assets depending on location
To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents' quality of life.	0	This would be dependent on the area selected, although medium sized extensions are unlikely to deliver public transport improvements to serve the new development. CIL monies could be used to create new cycle/ pedestrian links or public transport upgrades, and care would need to be taken to locate the extensions in areas of good existing public transport.	Extensions would need to be located in areas of good existing public transport.
To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect and increased storm occurrence (flooding covered in objective 4).	0	Green and blue space will allow cooling, in addition to reducing densities in urban areas. Design consideration should be made to shading and adaptation to withstand storm occurrences. The can be equally mitigated whether one large development or several smaller.	Design measures will be required to ensure sufficient adaptation measures are in place.
Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough, however there are higher levels of unemployment in certain areas.	0	Medium scale extensions are unlikely to create new permanent jobs in the local area.	NA
Support economic growth	There are a lower number of	+	The developments may provide additional	NA

which is inclusive, innovative and sustainable	entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.		consumers and workers to support the economy; this would also be the case for larger and smaller development.	
To achieve sustainable production and use of resources	The South East has a high level of resource consumption per capita.	+	Medium sized extensions could facilitate the provision of allotments and community gardens to enable food growing. CS9 will ensure sustainable construction regardless of the size of the site.	Allocate land within the development for community gardens.
To increase energy efficiency and the production of energy from low carbon technologies, renewable sources and decentralised generation systems	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the county to become one of the lowest carbon areas in the UK.	?+	Medium sized extensions may provide enough mass to enable a decentralised energy network, this would depend on the location and scale of development.	Consider locations that would enable connection to decentralised energy network.

Appraisal of one large extension (approximately 1500-2000 dwellings)				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough particularly for first time buyers. Census data shows household sizes are remaining large indicating a strong family market. The latest SHMA update (2012) shows there is a need for 828 units of affordable housing per year, and supports a target of 40% AH. The CS sets a target of 30%. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	++	This will provide 30% affordable housing as specified in the CS although this will not fully meet the identified need for affordable housing in the borough (as with the smaller site scenario). The CS indicates that consideration will be given to maximising opportunities for affordable housing delivery in any urban extensions – the viability of this is likely to be on par with smaller sites due to the infrastructure requirements of a larger site balanced with the lack of economies of scale with smaller sites. A larger scale extension may give opportunity to allocate land for G, T and TS pitches/plots, as could be the case with 2 – 3 medium extensions.	Work should be carried out to assess viability of increasing affordable housing provision on the extension development to a figure >30% to address the need. Land could be allocated for G, T & TS pitches/plots.
To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an aging population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas.	++	Economies of scale may enable the provision of a new health centre / community hub that will be easily accessible to the new community, and possibly existing communities depending on location. This is beneficial as opposed to many smaller developments, from which people (including the elderly) may have to travel to access healthcare facilities. Access to green infrastructure is important for health and wellbeing, including mental health – this will be dependent on location	Provision of health centre should be made to meet requirements of new neighbourhood. The Green Infrastructure strategy should allocate cycle/ pedestrian pathways to enable utilitarian exercise, and permeability should be designed into the neighbourhood to enable passage through by

			in terms of whether there is accessible natural open space nearby already, or if it needs to be designed into the development. The scale of development may allow for recreational facilities such as sports pitches, but this will be dependent on location and scheme design (including whether there is access to existing facilities).	pedestrians and cyclists.
To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	++	In a large scale new neighbourhood it may be possible to foster greater community cohesion with community facilities and school provided to facilitate this. Design will be an important factor in minimising crime.	Secure a community hub and school as part of the development. Design should be used to minimise crime.
To minimising the harm from flooding	There are areas identified through the SFRA where flooding is an issue.	?	This will depend on the area selected for development. The area chosen should be guided by the SFRA.	Area selected through SFRA sequential testing.
To improve accessibility to all services and facilities	This is an issue for the population generally, but in R&B has been shown to be a particular issue for the elderly population, and areas identified as relatively deprived.	++	This is less dependent on location with regards to the one large neighbourhood, as services and facilities can be provided as part of the development, or public transport can be easily altered to accommodate the new growth.	Services and facilities need to be planned for as part of the development.
To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	--	The majority of land adjoining urban areas is greenfield so this SA objective cannot be fulfilled through SUE development. This will be the case across all three scenarios, however the Core Strategy makes it clear that greenfield development will only be	The best that can be done is to ensure buildings and site layout is designed to be flexible to ensure lifetime use and best use of PDL and buildings in the future.

			progressed as a 'last resort'.	
To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify contaminated land issues.	?	This is dependent on the area used for development. It is unlikely that land contamination will be issue in greenfield sites, however agricultural soil quality should be considered in selecting an area for development. This will be the case across all three scenarios.	Locations should be selected that do not irreversibly impact on top grade agricultural soil. Localised contamination would have to be a consideration at the site selection/viability testing stage.
To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation should be taken into consideration when selecting a site.
To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise Preferential Route (concerning aircraft noise from Gatwick)	?	This will be dependent on the area chosen for development. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level experienced outdoors. Areas subject to high levels of noise from Gatwick and major roads should be avoided.	Noise should be a consideration in the selection of area for development.
To reduce light pollution	There are no significant light issues in the borough.	0	As development will be impacting on greenfield land, design measures should be taken to ensure light spillage is minimised.	Design of lighting to minimise light spillage.
To improve the water quality of rivers and groundwater, and maintain an adequate supply of water	There are groundwater issues in Preston. The borough can experience water shortages in times of drought, (although this is being addressed over several years with reservoir upgrades).	?	Whether or not this will have an impact on water quality of rivers and groundwater will depend on the location, topography etc. Design measures can be used to minimise run-off such as petrol interceptors in carparks, and SuDS.	Design measures and waste water treatment capacity investigated depending on the location.

To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the borough.	?	Impact on existing areas of biodiversity could be greater with one large development, but this is dependent on the area selected. Care should be taken to avoid habitat segregation by ensuring wildlife corridors are maintained across the development. Minimising the area of land lost to biodiversity can be achieved through design of green and blue space, including green roofs. A larger extension will have less impact on surrounding building character and so can incorporate green roofs more easily.	Design of green/blue space, green roofs etc to minimise areas lost to biodiversity. Trees and hedgerows can be protected, or planted. Wildlife corridors can be maintained across the development. All areas designated for biodiversity importance (especially national and international (+SAC 'buffer') should be avoided, and filtered out of the search at the earliest opportunity.
To protect and enhance the natural, archaeological, historic environments and cultural assets	This development will result in the loss of a natural asset (countryside).	?-	This will be dependent on the location. Views into the development from nearby landscape designations should be considered. Developing one large site could potentially be more intrusive than lots of small sites, however, again this is dependent on the site selected.	Take into account views when deciding on location. This will require more detailed assessment of e.g. historical/archaeological assets depending on location
To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents' quality of life.	++	One large development is more likely to deliver transport infrastructure improvements (for example, to the road network, bus routes, train station, and cycle routes). In addition to this the provision of a school, community and healthcare facilities and local shopping can reduce the need to travel in a way piecemeal development may not be able to.	Ensure that the new neighbourhood is as self-sustaining as possible to reduce travel requirements. Traffic modelling would be important in the case of one large development to ensure the road network could absorb potential increase and identify mitigation measures where necessary.

				The site should be located to maximise accessibility onto the existing transport network.
To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect and increased storm occurrence (flooding covered in objective 4).	0	Green and blue space will allow cooling, in addition to reducing densities in urban areas. Design consideration should be made to shading and adaptation to withstand storm occurrences. The can be equally mitigated whether one large development or several smaller.	Design measures will be required to ensure sufficient adaptation measures are in place.
Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough, however there are higher levels of unemployment in certain areas.	++	Larger scale development will support shops, school, community facilities and provision of employment floorspace and thereby create work locally.	Ensure development supports creation of shops, community facilities, school.
Support economic growth which is inclusive, innovative and sustainable	There are a lower number of entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.	++	Community facilities / hub that would be possible in one large scale development may provide space for start up business and entrepreneurs to locate. The development may provide additional consumers and workers to support the economy. This would also be the case for smaller development.	Ensure development supports creation of community facilities / hub.
To achieve sustainable production and use of resources	The South East has a high level of resource consumption per capita.	+	One large development could facilitate the provision of allotments and community gardens to enable food growing. CS9 will ensure sustainable construction regardless of the size of the site.	Allocate land within the development for community gardens.
To increase energy efficiency and the production of energy from low carbon technologies, renewable	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the	++	The size of the extension should enable connection to a decentralised energy network. This is unlikely to be the case with smaller scale development. The scale of	Incorporation of decentralised energy network, as in policy CS9.

sources and decentralised generation systems	county to become one of the lowest carbon areas in the UK.		development should also allow economies of scale on other renewable energy sources. Piecemeal development can have a greater impact on townscape character, than one large extension which to some extent can set its own character references.	

Appraisal of a number of smaller extensions distributed across the borough (approximately 10 extensions of between 100 – 300 dwellings)				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough – census data shows household sizes are remaining large indicating a strong family market. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	++	This will provide 30% affordable housing as specified in the CS although this will not meet the identified need in the borough as is the case with all 3 scenarios. The CS indicates that consideration will be given to maximising opportunities for affordable housing delivery in any urban extensions. This type of development may be more viable because of less S106 requirements for new infrastructure e.g. roads. It is unlikely that small extensions would give opportunity to allocate land for G, T and TS pitches/plots.	Work should be carried out to assess viability of increasing affordable housing provision on the extension development to a figure >30% to address the need.
To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an aging population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas. There is a shortage of school places.	?+	Small extensions are less likely to be able to provide healthcare facilities, so any extension would need to be located close to existing facilities. This score is dependent on location.	Extensions will need to be located close to existing facilities and make the most of green infrastructure for walking and cycling. School places will need to be planned for in existing schools.
To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	?+	The size of extensions will not be able to support community facilities or a new school, so any extension would need to be located close to existing facilities and school with adequate capacity to absorb the increase in population. This score is dependent on location. Design measures can be used to curb crime.	Extensions will need to be located close to existing facilities and school. Design should be used to minimise crime.
To minimising the harm from	There are areas identified	?	This will depend on the areas selected for	Areas selected through SFRA

flooding	through the SFRA where flooding is an issue.		development. The area chosen should be guided by the SFRA.	sequential testing.
To improve accessibility to all services and facilities	This is an issue for the elderly population, and for areas identified as relatively deprived.	?+	Small extensions would not support new services and facilities so locating the extensions close by to existing facilities will be important. Also, areas of good public transport should be selected to allow travel to services and facilities. This scoring is dependent on location.	Areas selected should be close by to existing facilities, and have good public transport links.
To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	--	The majority of land adjoining urban areas is greenfield so this SA objective cannot be fulfilled through SUE development. This will be the case across all three scenarios.	The best that can be done is to ensure buildings and site layout is designed to be flexible to ensure lifetime use and best use of PDL and buildings in the future.
To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify contaminated land issues.	?	This is dependent on the area used for development. It is unlikely that land contamination will be issue in greenfield sites, however agricultural soil quality should be considered in selecting an area for development. This will be the case across all three scenarios.	Locations should be selected that do not irreversibly impact on top grade agricultural soil. Localised contamination would have to be a consideration at the site selection/viability testing stage.
To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation should be taken into consideration when selecting a site.
To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise Preferential Route	?	This will be dependent on the area chosen for development. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level	Noise should be a consideration in the selection of area for development.

	(concerning aircraft noise from Gatwick)		experienced outdoors. Areas subject to high levels of noise from Gatwick and major roads should be avoided.	
To reduce light pollution	There are no significant light issues in the borough.	0	As development will be impacting on greenfield land, design measures should be taken to ensure light spillage is minimised.	Design of lighting to minimise light spillage.
To improve the water quality of rivers and groundwater, and maintain an adequate supply of water	There are groundwater issues in Preston. The borough can experience water shortages in times of drought.	?	Whether or not this will have an impact on water quality of rivers and groundwater will depend on the location, topography etc. Design measures can be used to minimise run-off such as petrol interceptors in carparks, and SuDS.	Design measures investigated depending on the location.
To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the borough.	?+	This is dependent on the areas located; however lots of smaller extensions could have less of an impact on biodiversity and habitat connectivity than larger extensions. In each of the smaller extensions, care should be taken to minimise the net loss of biodiversity area but designing in habitats and protecting existing hedgerows / trees.	Design measures to minimise loss of biodiversity and wildlife habitats.
To protect and enhance the natural, archaeological, historic environments and cultural assets	The development could impact on existing design character.	+	There is likely to be less impact on the landscape as an asset than with a large or medium extension. More consideration will need to be given to surrounding character and architecture as a smaller extension will need to become part of an existing ‘place’.	Consideration will need to be given to surrounding character to enable extension to ‘fit-in’.
To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents’ quality of life.	?+	Lots of small extensions will not deliver additional schools, community facilities or shops so the additional population will have to travel. This score is wholly dependent on the location of the extensions and their proximity to existing public transport to allow the growth	Extensions would need to be located in areas of good existing public transport.

			without increasing car journeys.	
To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect and increased storm occurrence (flooding covered in objective 4).	0	Green and blue space will allow cooling, in addition to reducing densities in urban areas. Design consideration should be made to shading and adaptation to withstand storm occurrences. The can be equally mitigated whether one large development or several smaller.	Design measures will be required to ensure sufficient adaptation measures are in place.
Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough, however there are higher levels of unemployment in certain areas.	0	Small scale extensions are unlikely to create new permanent jobs in the local area.	NA
Support economic growth which is inclusive, innovative and sustainable	There are a lower number of entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.	+	The developments may provide additional consumers and workers to support the economy. ; this would also be the case for larger and smaller development.	NA
To achieve sustainable production and use of resources	The South East has a high level of resource consumption per capita.	-	Small sized extensions are less likely to facilitate the provision of allotments and community gardens to enable food growing. CS9 will ensure sustainable construction regardless of the size of the site.	Locate new development near to existing allotments or keep housing density low to allow for garden space.
To increase energy efficiency and the production of energy from low carbon technologies, renewable sources and decentralised generation systems	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the county to become one of the lowest carbon areas in the UK.	?	This is dependent on location, in terms of whether the new development could connect to a decentralised energy network It would not have the mass to enable one on its own (but in future could connect) and would depend on existing character of the area as to how much renewable	Consider locations that could support renewable energy and could connect to decentralised energy network.

			technology would be appropriate.	

Appraisal of a stand-alone settlement (approx. 2000 dwellings)				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
1. To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough – census data shows household sizes are remaining large indicating a strong family market. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	++	The CS indicates that consideration will be given to maximising opportunities for affordable housing delivery in any urban extensions. If this higher quantity of AH could be secured on a large scale it would go some way to addressing the deficit in this type of housing in the area. This size of development may give opportunity to allocate land for G, T and TS pitches/plots.	Increased level of AH should be applied to the settlement.
2. To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an aging population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas. There is a shortage of school places.	++	A development on this scale would enable the provision of a community centre (allowing facilities for elderly groups / healthcare) and new primary school. Cycle lanes connections, pedestrian routes and open space can be designated to ensure healthy lifestyles.	Planning for healthcare, education and healthy lifestyles.
3. To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	++	The scale of the settlement would support community facilities and could enable the creation of community. Design measures will be more effective in tackling crime. Poverty could be partly addressed through the provision of AH (see SA obj 1) and through accessibility (see SA obj 5)	Design should be used to minimise crime. Community facilities should be created as part of the development.
4. To minimising the harm from flooding	There are areas identified through the SFRA where flooding is an issue.	?	This will depend on the areas selected for development. The area chosen should be guided by the SFRA and incorporate	Areas selected through SFRA sequential testing. Incorporate sustainable

			sustainable drainage measures.	drainage measures.
5. To improve accessibility to all services and facilities	This is a particular issue for the elderly population, and for areas identified as relatively deprived; people who cannot travel far.	++	The scale of settlement will enable provision of services and facilities within the settlement, thereby improving accessibility. This size of development would allow for an improved bus service serving the new development.	Provision of services and facilities.
6. To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	--	The majority / all of the settlement would be on greenfield land.	The best that can be done is to ensure buildings and site layout is designed to be flexible to ensure lifetime use and best use of PDL and buildings in the future.
7. To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify contaminated land issues.	?	This is dependent on the area used for development. There may be areas of contamination that could prevent development, or a site may need to be remediated in order to allow development to go ahead – this would impact on the viability of a scheme, but would be beneficial to the borough as a whole. Agricultural soil quality should be considered in selecting an area for development.	Locations should be selected that do not irreversibly impact on top grade agricultural soil. Contamination would have to be looked at for any selected site.
8. To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation and the potential to create one (placing dwellings close to pollutants) should be taken into consideration when selecting an area.
9. To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise	?	This will be dependent on the area chosen for the settlement. The edge of the south of the borough (CS area 3) is impacted from	Noise should be a consideration in the selection of area for

	Preferential Route (concerning aircraft noise from Gatwick)		Gatwick airport noise. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level experienced outdoors. Areas subject to high levels of noise from Gatwick and major roads should be avoided.	development.
10. To reduce light pollution	There are no significant light issues in the borough.	0	As development will be impacting on greenfield land, design measures should be taken to ensure light spillage is minimised.	Design of lighting to minimise light spillage.
11. To improve the water quality of rivers and groundwater, and maintain an adequate supply of water	There are groundwater issues in Preston. The borough can experience water shortages in times of drought. Reigate and Banstead falls within an area of "serious" water stress[1]. In addition, the Environment Agency's assessment[2] of water availability and the impacts of existing abstraction on the aquatic environment in the catchment shows that the sub catchments are "no water available" or "over licensed". This means that there is limited environmental capacity locally to support further abstraction to meet demand	?-	Whether or not this will have an impact on water quality and quantity of rivers and groundwater will depend on the location as the topography in the north of the borough is very different to that of the south, and areas in the north have been identified as being under more stress to produce sufficient water supply. Having a significant quantity of development in one area, rather than spread across the borough would create a significant new demand on the local environment. Design measures can be used to minimise run-off such as petrol interceptors in carparks, and SuDS.	Design measures investigated dependent on location. Water companies and EA would need to be consulted over potential areas for a stand alone settlement that would mean focussing a large quantity of housing in one area.

[1] Environment Agency (2007) Areas of water stress: final classification
[2] As shown in the Catchment Abstraction Management Strategy's (2006)

	from new development.			
12. To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the borough. There are also areas of biodiversity deficit in the borough.	-	The location of the settlement would have to be judged so as to cause minimal damage to wildlife habitats although a settlement of this size will undoubtedly cause habitat loss and displacement. Wildlife corridors and connectivity should be designed into the settlement, in addition to green space and biodiversity measures. Existing trees, hedgerows, ponds etc. should be protected.	Design measures to minimise loss of biodiversity and wildlife habitats and to enhance habitats.
13. To protect and enhance the natural, archaeological, historic environments and cultural assets	There are a number of landscape designations and historic and cultural assets in the borough.	+/-	There will be a significant impact on the landscape from the new settlement, and so surrounding views must be considered, and design of the settlement so as to compliment he surrounding area. A large standalone settlement has the potential to have less impact on cultural and historic assets that may form part of the townscape and could be in danger through piecemeal urban intensification.	Design and placing will be important in deciding which area of the borough is less sensitive to this scale of settlement.
14. To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents' quality of life.	+	2000 homes in one settlement would allow for an improved or new bus service serving the new development, it is not sufficient to allow for a new rail station, so proximity to rail should still be considered in siting a development of this size. One settlement with facilities, shops, school etc. would reduce the need to travel, but efforts should be made to site the development on a major road, to prevent rat-runs developing through existing residential	Transport linkages should be planned and delivered early in the development process.

			areas. A SAS by it's very nature would not have great accessibility to existing transport infrastructure, which brings the score down to a single +ve.	
15. To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect in urban areas and increased storm occurrence across the borough (flooding covered in objective 4).	+	This option will enable climate change to be designed into the settlement from the outset (layout, shading, orientation, green/blue space) and will reduce the need for urban intensification which exacerbates the UHI effect. Design consideration should be made to shading and adaptations to withstand storm occurrences. Development on greenfield sites may be easier to adapt to a number of climate related issues, than existing urban areas – although this would also be the case for smaller greenfield urban extensions.	Design measures will be required to ensure sufficient adaptation measures are in place.
16. Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough; however there are higher levels of unemployment in certain areas.	0	Development on this scale is unlikely to significantly impact on employment opportunities.	NA
17. Support economic growth which is inclusive, innovative and sustainable	There are a lower number of entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.	+	The developments may provide additional consumers and workers to support the economy; this would also be the case for any development. The scale of the settlement could provide opportunity from start up units within community facilities/hubs.	Start-up units for small business and enterprise could be designed in as part of the community facilities infrastructure.
18. To achieve sustainable production and use of resources	The South East has a high level of resource consumption per capita.	+	A large scale development may facilitate the provision of allotments and community gardens to enable food growing. CS9 will ensure sustainable construction regardless	Provision of allotments close to AH/ dwellings with smaller gardens.

			of the size of the site.	
19. To increase energy efficiency and the production of energy from low carbon technologies, renewable sources and decentralised generation systems	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the county to become one of the lowest carbon areas in the UK.	+	The scale of development may lend itself to the creation of a decentralised energy network. Renewable energy technology could also be designed in at the outset and would not have to conform to any restrictions on existing character.	DEN and Renewable energy.
Conclusions –The stand alone settlement scores highly over a number of sustainability objectives. Negative scoring can be seen against making best use of PDL and buildings, and biodiversity. Landscape and water quality have possible negatives against them. The only areas within the borough that could have a SAS (from the point of view of not coalescing with an existing urban area) are North East and South West of the borough. From a delivery point of view a SAS could be identified and safeguarded for delivery at the end of this plan period, and enable future housing delivery outside of this planning period. Much of the positive scoring in this appraisal is due to the provision of infrastructure, facilities and transport to serve the new settlement. Overall the appraisal highlights that this is a sustainable option regardless of whether it is a stand-alone settlement, or an urban extension.				

Appraisal of a stand-alone settlement (Approx. 5000 dwellings)				
SA objective	Summary of issues (scoping)	Appraisal score	Appraisal comments	Mitigation / recommendations
To provide sufficient housing to enable people to live in a home suitable to their needs and which they can afford	Housing affordability is a major issue in the borough – census data shows household sizes are remaining large indicating a strong family market. There are homelessness issues. There is a shortfall of Gypsy, Travellers and Travelling Showmen pitches/plots in the borough.	++	The CS indicates that consideration will be given to maximising opportunities for affordable housing delivery in any urban extensions. If this higher quantity of AH could be secured on such a large scale it would go some way to addressing the deficit in this type of housing in the area. This size of development would give opportunity to allocate land for G, T and TS pitches/plots.	Increased level of AH should be applied to the settlement.
To facilitate the improved health and wellbeing of the whole population	The borough is in relatively good health, although the age profile shows an aging population. Life expectancy is 7.4 years lower in the most deprived areas than in the least deprived areas. There is a shortage of school places.	++	A development on this scale would enable the provision of healthcare facilities and new school. Cycle lanes connections, pedestrian routes and open space can be designated to ensure healthy lifestyles.	Planning for healthcare, education and healthy lifestyles.
To reduce poverty, crime and social exclusion	Although the borough is relatively affluent, there are pockets of deprivation. It is in these areas that school results are lower than the borough average. The rate of violent crime in the borough is higher than average.	++	The scale of the settlement would support community facilities and could enable the creation of community. Design measures will be more effective in tackling crime. Poverty could be partly addressed through the provision of AH (see SA obj 1) and through accessibility (see SA obj 5)	Design should be used to minimise crime.
To minimising the harm from flooding	There are areas identified through the SFRA where flooding is an issue.	?	This will depend on the areas selected for development. The area chosen should be guided by the SFRA and incorporate	Areas selected through SFRA sequential testing. Incorporate sustainable

			sustainable drainage measures.	drainage measures.
To improve accessibility to all services and facilities	This is a particular issue for the elderly population, and for areas identified as relatively deprived; people who cannot travel far.	++	The scale of settlement will enable provision of services and facilities within the settlement, thereby improving accessibility.	Provision of services and facilities.
To make the best use of previously developed land and existing buildings	There are regeneration areas identified in the CS and corporate plan.	--	The majority / all of the settlement would be on greenfield land.	The best that can be done is to ensure buildings and site layout is designed to be flexible to ensure lifetime use and best use of PDL and buildings in the future.
To reduce land contamination and safeguard soil quality and quantity.	Land contamination information shows a number of contaminated sites across the borough. Development can be used to rectify contaminated land issues.	?	This is dependent on the area used for development. It is unlikely that land contamination will be issue in greenfield sites, however agricultural soil quality should be considered in selecting an area for development.	Locations should be selected that do not irreversibly impact on top grade agricultural soil. Contamination would have to be looked at for any selected site.
To ensure air quality continues to improve	There are a number of AQMAs designated across the borough.	?	The main contributors to this in the borough are heating systems and transport. (Transport is covered under objective 14). This will be wholly dependent on the area selected as to whether there are air quality issues prevalent.	AQMA designation and the potential to create one (placing dwellings close to pollutants) should be taken into consideration when selecting an area.
To reduce noise pollution	Noise issues are concentrated near the major roads and under the Noise Preferential Route (concerning aircraft noise from Gatwick)	?	This will be dependent on the area chosen for the settlement. The edge of the south of the borough (CS area 3) is impacted from Gatwick airport noise. Although design can mitigate noise experienced indoors, it cannot so easily reduce noise level experienced outdoors. Areas subject to high levels of noise from Gatwick and major	Noise should be a consideration in the selection of area for development.

			roads should be avoided.	
To reduce light pollution	There are no significant light issues in the borough.	0	As development will be impacting on greenfield land, design measures should be taken to ensure light spillage is minimised.	Design of lighting to minimise light spillage.
To improve the water quality of rivers and groundwater, and maintain an adequate supply of water	There are groundwater issues in Preston. The borough can experience water shortages in times of drought. Reigate and Banstead falls within an area of "serious" water stress[1]. In addition, the Environment Agency's assessment[2] of water availability and the impacts of existing abstraction on the aquatic environment in the catchment shows that the sub catchments are "no water available" or "over licensed". This means that there is limited environmental capacity locally to support further abstraction to meet demand from new development.	?-	Whether or not this will have an impact on water quality and quantity of rivers and groundwater will depend on the location as the topography in the north of the borough is very different to that of the south, and areas in the north have been identified as being under more stress to produce sufficient water supply. Havig a significant quantity of development in one area, rather than spread across the borough would create a significant new deman on the local environment. Design measures can be used to minimise run-off such as petrol interceptors in carparks, and SuDS.	Design measures investigated dependent on location. Water companies and EA would need to be consulted over potential areas for a stand alone settlement that would mean focussing a large quantity of housing in one area.
To conserve and enhance biodiversity within the plan area	There are several designated areas of biodiversity interest and conservation within the	-	The location of the settlement would have to be judged so as to cause minimal damage to wildlife habitats although a	Design measures to minimise loss of biodiversity and wildlife habitats and to

[1] Environment Agency (2007) Areas of water stress: final classification
[2] As shown in the Catchment Abstraction Management Strategy's (2006)

	borough.		settlement of this size will undoubtedly cause habitat loss and displacement. Wildlife corridors and connectivity should be designed into the settlement, in addition to green space and biodiversity measures. Existing trees, hedgerows, ponds etc. should be protected.	enhance habitats.
To protect and enhance the natural, archaeological, historic environments and cultural assets	There are a number of landscape designations and historic and cultural assets in the borough.	+/-	There will be a significant impact on the landscape from the new settlement, and so surrounding views must be considered, and design of the settlement so as to compliment he surrounding area. A large standalone settlement has the potential to have less impact on cultural and historic assets that may form part of the townscape and could be in danger through piecemeal urban intensification.	Design and placing will be important in deciding which area of the borough could 'take' this scale of settlement.
To reduce the need to travel, encourage sustainable transport options and make the best use of existing transport infrastructure	There are a number of areas in the borough where highway congestion is a real issue. Peak hour traffic flow has been cited as impacting on residents' quality of life.	+	The size of this settlement would enable the integration and provision of sustainable transport measures. The phasing of this would be key to encouraging sustainable transport habits. A SAS by it's very nature would not have great accessibility to existing transport infrastructure, which brings the score down to a single +ve.	Transport linkages should be planned and delivered early in the development process.
To ensure that the District adapts to the impacts of the changing climate	There are issues around urban heat island effect in urban areas and increased storm occurrence across the borough (flooding covered in objective 4).	+	This option will enable climate change to be designed into the settlement from the outset (layout, shading, orientation, green/blue space) and will reduce the need for urban intensification which exacerbates the UHI effect. Design consideration should be made to shading and adaptations to withstand storm occurrences. Development	Design measures will be required to ensure sufficient adaptation measures are in place.

			on greenfield sites may be easier to adapt to a number of climate related issues, than existing urban areas – although this would also be the case for smaller greenfield urban extensions.	
Provide for employment opportunities to meet the needs of the local economy	Unemployment is relatively low in the borough, however there are higher levels of unemployment in certain areas.	+	Development at this scale is likely to create jobs and support the local economy.	NA
Support economic growth which is inclusive, innovative and sustainable	There are a lower number of entrepreneurs in the borough that the rest of Surrey. Economic downturn. Redhill in particular is underperforming as a key commercial destination.	+	The developments may provide additional consumers and workers to support the economy ; this would also be the case for any development. The scale of the settlement could provide opportunity from start up units within community facilities/hubs.	Start-up units for small business and enterprise could be designed in as part of the community facilities infrastructure.
To achieve sustainable production and use of resources	The South East has a high level of resource consumption per capita.	+	A large scale development may facilitate the provision of allotments and community gardens to enable food growing. CS9 will ensure sustainable construction regardless of the size of the site.	Provision of allotments close to AH/ dwellings with smaller gardens.
To increase energy efficiency and the production of energy from low carbon technologies, renewable sources and decentralised generation systems	Carbon emissions in the South East are high. Surrey Climate Change partnership has the ambition for the county to become one of the lowest carbon areas in the UK.	++	The scale of development would certainly lend itself to the creation of a decentralised energy network. Renewable energy technology could also be designed in at the outset and would not have to conform to any restrictions on existing character.	DEN and Renewable energy.
Conclusions –This option was tested at such a large scale because at a smaller scale the settlement would not be able to support the entire necessary infrastructure to enable it to be 'stand-alone'. The stand alone settlement scores highly over a number of sustainability objectives. Negative scoring can be seen against making best use of PDL and buildings, and biodiversity. Landscape and water quality have possible negatives against them. The scale of this settlement would make delivery within the plan period very difficult as the market may not support the delivery of more than 300 or so dwellings per				

annum – although the site could potentially be split between developers and delivered over the whole plan period, although this would undermine the overall direction of the CS (delivering within urban areas and regeneration areas). The only areas within the borough that could have a SAS (from the point of view of not coalescing with an existing urban area) are North East and South West of the borough. From a delivery point of view a SAS could be identified and safeguarded for delivery at the end of this plan period, and enable future housing delivery outside of this planning period. Much of the positive scoring in this appraisal is due to the provision of infrastructure, facilities and transport to serve the new settlement, at this scale it is unlikely that this provision would be made at the outset of the development. A development of this size drawn out over a number of years (20 or so) would have different short-term and long term implications – for example, many houses could be built and years could pass without the provision of a school (thus undermining the positive score in this appraisal in the short-term). Overall the appraisal highlights that this is a sustainable option, **if** it could be built out at the same time – and this is not realistic. If the council wants to achieve its development hierarchy, as set out in policy CS4, then options that are fully deliverable within the latter part of the plan period are more realistically sustainable.