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# Stroud District Council Core Strategy Alternative Strategies Options Appraisal Report

January 2012



Prepared for  
**Stroud District Council**

## Revision Schedule

### Sustainability Appraisal Report January 2012

Rev	Date	Details	Prepared by	Reviewed by	Approved by
01	14.12.09	Options Report	<b>Ruth Jones</b> Assistant Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist
02	07.11.11	Revised Options Report	<b>Tracy Horsted</b> Assistant Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist
03	30.11.11	Revised Options Report	<b>Tracy Horsted</b> Assistant Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist
04	11.01.12	Final Revised Options Report	<b>Tracy Horsted</b> Assistant Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist	<b>Colin Bush</b> Principal Environmental Specialist

**URS Scott Wilson**

Scott House  
Alençon Link  
Basingstoke  
Hampshire  
RG21 7PP

Tel (01256) 310200  
Fax (01256) 310201

[www.scottwilson.com](http://www.scottwilson.com)

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# 1 Introduction

## 1.1 Introduction

1.1.1 Scott Wilson has been commissioned by Stroud District Council to undertake an independent **Sustainability Appraisal (SA)** of the Alternative Strategies presented in the Core Strategy Alternative Strategies Consultation Document.

1.1.2 The Alternative Strategies are a set of eight spatial options (Strategy Options A – H) which illustrate alternative strategic frameworks for growth and development in the District over the plan period.

## 1.2 Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA)

1.2.1 SEA and SA is a process by which the environmental, social and economic effects of a strategic action (a plan or a programme) are considered prior to its implementation. The purpose of undertaking this exercise is to identify the likely effects of the plan or programme in advance so that adverse effects can be minimised and beneficial effects can be enhanced.

1.2.2 At this stage of the plan making process the SA will inform the selection of options alongside other considerations such as viability. Within this report Chapter 3: Sustainability Appraisal provides further details on why SA/SEA is required and Chapter 4: Methodology describes how it is undertaken.

## 1.3 How to Comment

1.3.1 If you would like to comment on the Sustainability Appraisal Report, or have comments on the Core Strategy Alternative Strategies Consultation Document itself, please contact:

By email: [core@stroud.gov.uk](mailto:core@stroud.gov.uk)

By post:

Planning Strategy Team  
Ebley Mill  
Stroud  
Gloucestershire  
GL5 4UB

## 2 Producing a New Development Plan for Stroud

- 2.1.1 A Local Development Framework (LDF) is a folder of Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs) that together outline the approach to planning that will be followed within a local authority area. DPDs are the key statutory documents within the LDF which set out the development goals for the area. The purpose of SPDs is to provide detail to support policy in higher level DPDs. As it is completed the Stroud District LDF will gradually replace the Local Plan which currently guides development in the District.
- 2.1.2 The Core Strategy DPD is being initially prepared under the Town & Country Planning (Local Development) (England) Regulations 2008. Under the 2008 Regulations DPDs must go through an initial options stage, followed by a pre-submission consultation stage, after which the DPD will be submitted to the Secretary of State for consideration at an Examination in Public (EiP). It is important to note that the draft National Planning Policy Framework sets out the Government's economic, environmental and social planning policies that, taken together, articulate its vision of sustainable development to be interpreted and applied locally. It contains a presumption in favour of sustainable development and strongly encourages local planning authorities to plan positively for new development. The current LDF system is likely to change with a single Local Plan being produced for each Local Planning Authority (LPA) area. Further comment and advice is set out in the Core Strategy report to Council at the Meeting of 24<sup>th</sup> November 2011.
- 2.1.3 The Core Strategy DPD has progressed beyond its first stage of preparation: an options document has been produced. The options document was the Core Strategy Alternative Strategies Consultation document and this was subject to consultation during February and March 2010. The consultation involved a series of drop-in exhibitions at 8 parish cluster locations and an online questionnaire with publicity given through local media and via the Council's website. An interim SA Report that set out the findings of the SA of the Alternative Strategies was also produced at that time.
- 2.1.4 A report summarising the response to the Alternative Strategies consultation was presented to Cabinet on 9 December 2010. Following the Government's announcement of the intention to abolish Regional Spatial Strategies it has been necessary to review and update housing numbers for the plan period. These housing number revisions were debated at Cabinet and then at Council on 22<sup>nd</sup> September 2011. Approval was given to a revised figure of 9,350 dwellings during the period 2006 to 2026 for consultation purposes. The residual housing need for about 3,200 dwellings was identified for which land would need to be allocated in the emerging Core Strategy (Local Plan).
- 2.1.5 In light of the consultation responses received, and the subsequent increase in housing numbers as a result of the proposed abolition of Regional Spatial Strategies, the Alternative Strategies have been amended: Strategies A and B now include reference to Sharpness as a potential location; and a new hybrid Strategy H has been included which includes aspects of Strategies A, B and D. As such it has been necessary to update the SA as appropriate.

## 3 Sustainability Appraisal

### Sustainability Appraisal (SA)

- 3.1.1 SA involves the identification and evaluation of a plan or programme's impacts on economic, social and environmental objectives – i.e. its compatibility with the three dimensions of sustainable development. The SA process incorporates the requirements of a European law requiring certain plans and programmes to undergo a formal Strategic Environmental Assessment (SEA).

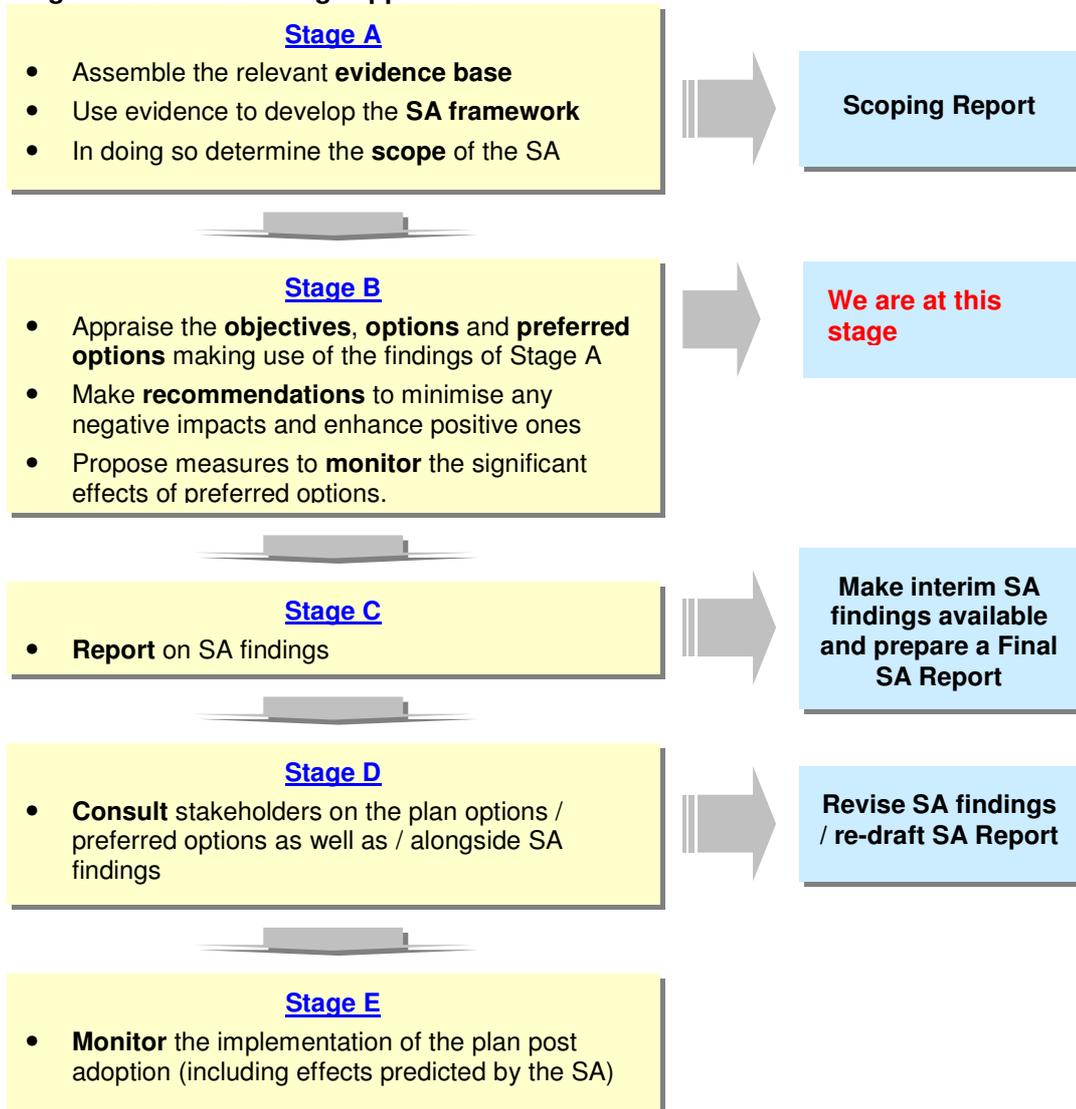
### Strategic Environmental Assessment (SEA)

- 3.1.2 SEA is required by European and by English law. It involves the systematic identification and evaluation of the environmental impacts of a strategic action (e.g. a plan or programme). In 2001, the EU legislated for SEA with the adoption of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive'). The aim of the SEA Directive is "to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development".
- 3.1.3 The Directive was transposed by the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulations'), which came into force on 21st July 2004. The SEA Regulations apply (with some specific exceptions) to plans and programmes subject to preparation and/or adoption by a national, regional or local authority or those prepared by an authority for adoption through a legislative procedure by Parliament or Government and are required by legislative, regulatory or administrative provisions.
- 3.1.4 The Government's approach is to incorporate the requirements of the SEA Directive into a wider SA process that considers economic and social, as well as environmental effects. To this end, in November 2005, the Government published guidance on undertaking SA of Local Development Frameworks that incorporates the requirements of the SEA Directive ('the Guidance'). The combined SA / SEA process documented in this report is referred to as Sustainability Appraisal (SA).

### The SA process

- 3.1.5 The Guidance advocates a five-stage approach to undertaking SA (see **Figure 3.1**).

**Figure 3.1: The five stage approach to SA**



### Stage A

3.1.6 The purpose of Stage A is to define the scope and level of detail of the assessment. This includes the identification and review of relevant international, national, regional and local plans and programmes that might influence the LDF, and from which sustainability objectives can be derived, and the collection of baseline data, along with trend data where appropriate, to inform the identification of key sustainability issues.

3.1.7 The output of Stage A is the production of a Scoping Report, which is subject to public consultation. The Scoping Report outlines the identified key sustainability issues for the District in light of the baseline data collated. It also sets the Sustainability Framework, which includes the Sustainability Objectives that were developed in the context of the identified issues and other relevant plans and programmes.

3.1.8 The Sustainability Scoping Report for the Stroud District LDF was produced for the Council by Scott Wilson in 2009 and is available in full to download from the Council's website at: [http://www.stroud.gov.uk/info/plan\\_strat/scoping\\_report.pdf](http://www.stroud.gov.uk/info/plan_strat/scoping_report.pdf)

**Baseline Data**

3.1.9 Baseline data was collated and reviewed at the Scoping stage in order to establish the baseline conditions against which the implementation of the LDF documents can be assessed. The review sought to establish:

- The current situation and whether trends indicate that the situation is improving or getting worse;
- The current situation in relation to established thresholds or targets;
- Whether any particularly sensitive or important elements of the Borough are likely to be affected;
- The practicality of improving the current situation in light of the type of effects experienced e.g. temporary or permanent effects; reversible or irreversible effects;
- Whether there have been any significant cumulative or synergistic effects over time and if there might be such effects in the future.

3.1.10 The baseline data and conditions are outlined in the Scoping Report.

**Consultation on the Scoping Report**

3.1.11 The Scoping Report was subject to consultation. Responses were invited from a range of relevant bodies and stakeholders.

**The SA Objectives**

3.1.12 The Scoping Report sets the Sustainability Appraisal Objectives (SA Objectives) that were developed in the context of the identified issues and other relevant plans and programmes. The SA Objectives for the Stroud District LDF are listed below.

1. To meet the challenge of a growing and ageing population.
2. To encourage social inclusion, equity, the promotion of equality and a respect for diversity.
3. To maintain and improve the community's health with accessible healthcare for residents.
4. To increase levels of physical activity, especially among the young.
5. To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.
6. To develop the local economy within its environmental limits.
7. To maintain and enhance employment opportunities within the District to meet both current and future needs.
8. To promote traffic reduction and encourage more sustainable alternative forms of transport.
9. To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.
10. To reduce crime and anti-social behaviour.
11. To provide affordable and decent housing to meet local needs.

12. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.
13. To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.
14. To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.
15. To ensure the air quality continues to improve.
16. To protect and enhance soil quality.
17. To maintain and enhance the quality and quantity of ground and surface waters.
18. To manage and reduce the risk of flooding in new and existing development.
19. Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.
20. To conserve and enhance landscapes and townscapes.
21. To provide access to the countryside and appropriate land for leisure and recreation use.
22. To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.

### **Stage B**

- 3.1.13 This SA Report focuses on Stages B of the SA process. The options presented by the Council in the Core Strategy Alternative Strategies Consultation Document have been appraised. The findings of this appraisal have been set out in Chapter 4: Results.
- 3.1.14 When deciding which of the options to take forward as policy the findings of the SA will be one factor which will be taken into account along with other considerations such as viability and cost. This report can be read in conjunction with the Scoping Report, which sets the context within which the appraisal has been undertaken.

### **Stage C and D**

- 3.1.15 Following consultation on the Core Strategy Alternative Strategies Consultation Document and this SA Report the Council will produce a submission version of the Core Strategy. At this stage the SA Report will be revised to reflect the submission version policies selected from the options.

### **Stage E**

- 3.1.16 Stage E of the process (monitoring) will be undertaken by the Council following adoption of the Core Strategy.

## 4 Methodology

### 4.1 Appraisal of the Strategy Options

4.1.1 The general method adopted when undertaking the appraisal was to compare each Strategy with the current situation in Stroud District, as described by the baseline data and likely future conditions analysis in the SA Scoping Report, for each SA Objective.

4.1.2 Where the implementation of the Strategy would result in little or no change to the existing situation this was recorded in the appraisal as having no effect on the Objective. Where the implementation of the Strategy would likely result in a change to the existing situation the effects were assessed in terms of the nature of the impact (beneficial/adverse/neutral/uncertain) and of its relative magnitude and duration over time. These criteria were then used to judge whether the resulting effect would be minor or significant.

4.1.3 The symbols used in the assessment are as follows:

Beneficial		Adverse		Uncertain		No effect
++	+	-	--	+/-	?	~
Significant beneficial effect on Objective	Beneficial effect on Objective	Adverse effect on Objective	Significant adverse effect on Objective	Beneficial and Adverse effects on Objective	Uncertain effect on Objective due to unknown factors	No effect on Objective

### 4.2 The Alternative Strategies

4.2.1 The following Alternative Strategies which have been proposed by the Council are given below.

- Strategy A – Growth Point Strategy.
- Strategy B – Concentrated Development Strategy.
- Strategy C – Cluster Strategy.
- Strategy D – Stroud Valleys Strategy.
- Strategy E – Rural Combination Strategy.
- Strategy F – Dispersal Strategy.
- Strategy G – Rural Community Strategy.
- Strategy H – Hybrid Strategy of A, B and D.

4.2.2 The availability of services and public transport provision has been a consideration in developing the Strategy Alternatives. The Council has undertaken an exercise to classify settlements into different types/tiers as listed below.

- **Accessible local service centre (first tier):** A settlement with primary services and accessible to a main line railway station and a secondary school by means of public/sustainable transport.
- **Local service centre (second tier):** A settlement with a number of primary services and therefore self contained for everyday requirements.

- **Accessible settlement with limited facilities (third tier):** a settlement with limited facilities but accessible to a main line railway station and a secondary school by means of public/sustainable transport.
  - **Accessible settlement (fourth tier):** a settlement lacking in facilities, which has access to a railway station and a secondary school by means of public/sustainable transport.
  - **Unclassified (fifth tier):** A settlement which is not fully accessible and does not provide the facilities to meet the day to day needs of residents.
- 4.2.3 The Alternative Strategies presented in the Consultation Document were appraised and the findings are discussed in the following section. Appraisal matrices were used to evaluate the effects of the Strategies. Each Strategy has been considered against each Sustainability Objective and the likely effects noted. A general discussion of the results of the appraisal of Alternative Strategies A – H precedes a more detailed examination of the effects of each of the Alternative Strategies.
- 4.2.4 As discussed in Chapter 2: Producing a New Development Plan for Stroud, housing numbers for the plan period have recently been reviewed and updated. This has resulted in an increase to the original housing numbers assessed under the previous Sustainability Appraisal carried out on the Alternative Strategies in December 2009. The residual housing need identified following this increase in housing numbers is around 3,200 dwellings, whereas the previous figure had been around 2,000 additional dwellings. The December 2009 Alternative Strategies document and the accompanying SA Report were based on the original residual housing need of around 2,000 dwellings.
- 4.2.5 Strategy H, which is a new hybrid strategy, takes account of the updated housing numbers whereas Strategies A-G are based on the original figure of around 2,000 dwellings. However, given the strategic nature of the sustainability appraisal carried out, this does not result in compatibility issues. The sustainability appraisal does not consider numbers of dwellings, *per se*, but concentrates on the strategic distribution of housing. It considers the merits of each strategy for locating development rather than the individual size of developments, although it does consider the relative size of developments within a location in relation to the effects on the SA Objectives.
- 4.2.6 Given that the increase to residual housing need is in the region of 1,200 dwellings over the plan period this is not considered to alter the relative Alternative Strategies to such an extent that the results of the original appraisal would be significantly altered. This being the case, the results of the original SA on Strategies A-G is not considered to be incompatible with the SA for Strategy H and the results of the SA for each of the Alternative Strategies can therefore be compared for their relative sustainability.

## 5 Results

### 5.1 Discussion of the Results

- 5.1.1 Each of the Strategies originally provided for housing at 2,000 dwellings. As such the effects of the Strategies in terms of providing housing and affordable housing to meet local needs is likely to be broadly similar. However Strategies which focus on dispersing development throughout the District such as Strategy F and G will make provision for modest number of houses in a greater number of settlements including small rural villages. These Strategies are likely to do more to provide for local need in these small rural villages and enable first time buyers and key workers to buy houses in the villages if they wish to do so when compared with those Strategies which have a greater focus on concentrating a greater amount of development in larger settlements such as Strategies A, B, E and H. Making provision for affordable housing in smaller villages in the District would contribute to meeting a longer term need in these locations for key workers such as primary school teachers and care workers. It must be noted that Strategy H has been developed as an alternative development strategy (in response to earlier consultation feedback and the need to take into account the spatial aspects of planning). This updated analysis looks at the relative performance of this new strategy in comparison with other strategies previously promoted and takes account of the new housing requirement figure.
- 5.1.2 The Strategies vary in the degree to which development is dispersed throughout the District and the selected locations for development. However in common with one another each of the Strategies locates development in existing settlements; although the settlements, the size of the settlements and the size of allocated development to each does vary. The Strategies provide for the co-location of residential and employment provision so that where a settlement has been identified for residential development there will also be employment provision at that location of a magnitude to provide for two or more jobs for every new dwelling.
- 5.1.3 The Core Strategy Alternative Strategies Consultation Document discusses the provision of Retail and Leisure floorspace to be made under each of the Alternative Strategies. However there are relatively few details set out in the Consultation Document regarding the delivery of services and how it is envisioned services will be provided to residents of new dwellings. A component of understanding future strategies for service delivery will be setting out indicative floorspace areas for service and community functions and indicating the spatial distribution of this; or where no provision is to be made in terms of new buildings or infrastructure examining which existing facilities will be required to provide for new demand. In providing services, working with delivery partners to achieve agreement will be a critical part of the process and as a component of this an understanding of possible future models of service delivery will be required. Trends in service delivery could act to influence the advantages and disadvantages of concentrating or dispersing development. For example a move towards supporting elderly residents to continue to live in their own homes through the provision of care support services would act as a factor favouring a more dispersed approach to growth with affordable and key worker housing being provided throughout the District to make accommodation provision for care workers alongside existing residents.
- 5.1.4 The discussion of service delivery in this report reflects the details given in the Consultation Document and has been limited. It has not been possible to distinguish between the Alternative Strategies on the basis of the provision made for services other than to say that concentrating development rather than dispersing it has the potential to increase populations in existing settlements to a level at which higher order services, requiring a certain population threshold to be viable, can be provided.

- 5.1.5 The Strategies name the settlements for development but do not identify sites. At this stage the purpose of the Strategies are to explore, in general terms, how much new development should take place and where this should be located. At this stage, as the sites are not known, it has only been possible to discuss in general terms the extent to which development may contribute to regeneration of underused and vacant sites and to bring historic buildings back into use. Similarly only a general discussion has been possible on the extent to which Strategies are likely to require the development of greenfield land. These discussions have been based on the assumption that the location of development in existing settlements and in the Stroud Valley regeneration sites is likely to favour the reuse and redevelopment of vacant and underused sites and buildings whereas development in more rural locations at smaller settlements in the countryside is likely to favour the use of greenfield sites. This is a likely oversimplification of the real situation and it is probable that there will be exceptions to this general pattern. At future stages a more detailed discussion of these issues will become possible as more information on the Strategies emerges.
- 5.1.6 Locating new residential and employment development together within existing settlements may act to facilitate more sustainable forms of transport such as walking and cycling, which are generally used for commuting over short distances. While a proportion of the occupants of new housing may find employment in the existing and new businesses in the settlement in which they live it is likely that others will commute out. An examination of the spatial distribution of commuting flows may contribute to a greater understanding on the current situation. This is discussed further in Chapter 5: Conclusions in the mitigation section. Planned employment development could be targeted to address existing and likely future commuter flows by facilitating the provision of suitable employment in the main commuter generating areas. For the purpose of this appraisal it has been assumed that the location of a greater proportion of development in few locations favouring larger settlements is likely to make a greater contribution to facilitating the use of sustainable transport than Strategies which focus more on the dispersion of growth. However this is a likely simplification of the situation given that it does not consider commuter flows around the District and from the District to centres of employment outside of the District. At this stage there are uncertainties associated with judging what the effects of the Strategies on those SA Objectives which are concerned with employment and the economy (SA Objectives 5, 6 and 7) and transport (SA Objective 8) in the absence of a detailed exploration of commuter flows.
- 5.1.7 Due to the co-locating of residential and employment development under each of the Strategies those Strategies which focus on a more dispersive approach such as Strategy F and G will provide for smaller employment units scattered across the District. As employment provision is made in many, small allocations there is the option only to provide for smaller units. Those Strategies which focus a greater amount of development in fewer locations such as Strategies A, B E and H have the option to provide larger employment units, or smaller units or a combination of the two.
- 5.1.8 The provision of smaller units is likely to be beneficial for start-up businesses seeking smaller, lower cost accommodation. However given the nature of warehousing and distribution, businesses in this sector are likely to be more attracted to larger units in locations which are well served by the existing road network and rail network. An increasing focus on reducing carbon dioxide emissions is also resulting in businesses looking at alternative ways of transporting goods such as using waterways. This may make the location of rivers and canals suitable for freight transport a factor in business location decisions in the future. Small units of new business warehousing and distribution accommodation in more rural locations which are not well served by the existing transport network may suffer from low occupancy. This may also be true to an extent for office accommodation with accessibility for future staff and visitors being a consideration for future occupiers.

5.1.9 In terms of energy and heat provision those Strategies which concentrate more development in fewer locations, principally Strategies A, B, E and H offer the potential to provide a District Heating Scheme to provide for heating demand. With such a scheme there would be the potential to provide a greater proportion of heat and electricity demand from the new development from renewable sources. However there are issues with such schemes that would need to be addressed to determine if this was viable including calculating heat demand and timing, considering density and how this would impact on viability and finding a suitable source of fuel.

5.1.10 A flood risk map prepared for the Scoping Report identifies the main area of flood risk in the District as a band running alongside the River Severn to the west and smaller areas of flood risk mainly associated with land surrounding the river network<sup>1</sup>. A rough assessment of the degree to which each of the Strategies locates development in broad areas of identified flood risk has been undertaken. The sites or rough locations for development in the settlements are not known at this stage and consequently any discussions of flood risk have been limited.

## 5.2 Strategy A – Growth Point Strategy

5.2.1 Characteristics of this strategy are as follows:

- 2,000 dwellings concentrated at either Cam, Eastington, Sharpness or west of Stonehouse.
- Employment and business premises would be integrated with new dwellings as mixed used development. Indicative floorspace provision would be for 46,240 sqm general industrial, 19,000 sqm general office, 50,000 sqm warehousing and distribution and 12,000 sqm retail and leisure.

5.2.2 The Spatial Strategy will locate all of the proposed development at one location. It is likely that the provision of new residential and employment development of the scale described at one of the three proposed locations would require at least some greenfield development unless there was a significant brownfield site at one of the identified settlements which would be suitable for redevelopment. An adverse effect is anticipated on SA Objective 13 as the Strategy is unlikely to maximise the re-use of land and buildings.

5.2.3 Certain services such as GP surgeries or leisure provision such as swimming pools require a certain threshold of people within their catchment area to be viable. Locating all the development together rather than dispersing it could therefore boost service provision by allowing the selected settlement (either Cam, Eastington, Sharpness or west of Stonehouse) to reach a higher population threshold to enable a greater range of service and leisure provision. This would benefit existing residents as well as those living in the new dwellings. However focusing development on one location only would remove the opportunity for new development to facilitate the provision of improved services and bring regeneration to other settlements in the District. If Eastington was selected as the location for the new development this would have the potential to enable the provision of GP services. Improving health services in this manner is likely to contribute to meeting the challenge of an ageing population as generally older people require more health care.

5.2.4 Locating all employment development in one location rather than distributing it within numerous smaller centres creates the possibility of providing business accommodation of a range of sizes; from larger units which are likely to be attractive to businesses in the warehousing and distribution sector; smaller units for start ups and also larger office spaces for those companies

<sup>1</sup> Local Development Framework: Sustainability Appraisal Scoping Report (2009) prepared by Scott Wilson for Stroud District Council, Flood Risk Map (Source: Stroud District Strategic Flood Risk Assessment, 2008)

which employ more people and which will need larger business accommodation in accessible locations in order to be attracted to the area. In terms of accessibility the identified locations are more favourably located to the rail and strategic road network than the more rural locations for development proposed under alternative Strategies. However it is possible that ease of access out of the District by rail and motorway may act to exacerbate the current employment situation where there are high levels of outcommuting for work unless equivalent skilled jobs for which Stroud residents are qualified for are provided through the new employment provision.

- 5.2.5 The Strategy will focus development in one location and as such there is the potential to provide for a District Heating Scheme. With such a scheme there would be the potential to provide a greater proportion of heat and electricity demand from the new development from renewable sources. There would also be a potential to export heat from such a scheme to existing dwellings, businesses and leisure facilities. There could be beneficial effects on SA Objective 13 and 14 associated with this. However there are issues with such schemes as discussed in Section 4.3 which would need to be resolved.
- 5.2.6 There are areas of flood risk around Cam, Eastington, Sharpness and Stonehouse. The effects of the Strategy on flood risk will be influenced by site selection. An uncertain effect is anticipated on SA Objective 14 and 18.
- 5.2.7 The Severn Estuary is designated a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar Site for a number of important features, including internationally important populations of migratory bird species and wintering bird species and assemblages of nationally important populations of waterfowl. The location of Cam, Eastington and Stonehouse in relation to the Severn Estuary is such that there are unlikely to be any significant effects on the integrity of the features for which the estuary has been designated. However, the location of Sharpness adjacent to the Severn Estuary is likely to result in adverse effects in relation to SA Objective 19.

Strategy A – Growth Point Strategy			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	+	+	+
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	+	+	+
4) To increase levels of physical activity, especially among the young.	~	~	~
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	~	~	~
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	~	~	~
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+/-	+/-	+/-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	?	?	?
15) To ensure the air quality continues to improve.	~	~	~

Strategy A – Growth Point Strategy			
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	-/?	-/?	-/?
20) To conserve and enhance landscapes and townscapes.	~	~	~
21) To provide access to the countryside and appropriate land for leisure and recreation use.	~	~	~
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.3 Strategy B – Concentrated Development Strategy

### 5.3.1 Characteristics of this strategy are as follows:

- 1,000 dwellings concentrated at two or more of the following settlements: Cam, Eastington, Sharpness, west of Stonehouse, Brimscombe or Whitminster.
- Employment and business premises would be integrated with new dwellings as mixed used development. Indicative floorspace provision at each of the settlements would be for 23,800 sqm general industrial, 9,050 sqm general office, 25,000 sqm warehousing and distribution and 6,000 sqm retail and leisure.

5.3.2 The Strategy has similarities with Strategy A in that it will concentrate development rather than disperse it. Under this Strategy development will be distributed equally between two locations rather than in one location as under Strategy A. The beneficial effects in terms of service provision (including health services) and employment are likely to be similar. In common with Strategy A the use of District Heating Schemes may be possible although the viability of this will need to be tested. There are areas of flood risk surrounding the settlements of Cam, Eastington, Sharpness and Stonehouse. The effects of the Strategy on flood risk will be influenced by site selection. However, the location of Sharpness adjacent to the Severn Estuary is likely to result in adverse effects in relation to SA Objective 19 (see Strategy A appraisal, paragraph 4.4.7).

Strategy B – Concentrated Development Strategy	Timeframe		
SA Objective	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	+	+	+
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	+	+	+
4) To increase levels of physical activity, especially among the young.	~	~	~
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	~	~	~
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++

Strategy B – Concentrated Development Strategy			
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	~	~	~
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+/-	+/-	+/-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	+/-	+/-	+/-
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	-/?	-/?	-/?
20) To conserve and enhance landscapes and townscapes.	~	~	~
21) To provide access to the countryside and appropriate land for leisure and recreation use.	~	~	~
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.4 Strategy C – Cluster Strategy

### 5.4.1 Characteristics of this strategy are as follows:

- 200 to 250 dwellings to be located in eight settlements, each serving a rural hinterland:
  - Gloucester Cotswold Fringe (Upton St Leonards).
  - Stonehouse Cluster (either at Stonehouse, Eastington, King Stanley or Leonard Stanley).
  - Cotswold Cluster (at Painswick).
  - Stroud Valleys (either at Stroud, Randwick, Cainscross, Brimscombe and Thrupp or Minchinhampton).
  - Cam/Dursley Cluster (either at Cam or Dursley).
  - Wotton Cluster (at Wotton-under-Edge).
  - Berkeley Cluster (either at Berkeley or Newton/Sharpness).
  - Severn Voice (either at Frampton-on-Severn or Whitminster).
- Indicative floorspace provision for employment at each of the eight settlements would be for 2,975 sqm general industrial, 1,187.5 sqm general office, 3,125 sqm warehousing and distribution and 750 sqm retail and leisure.

5.4.2 Under this Strategy development will be more dispersed than under Strategies A and B. There is a reduced potential therefore for development to raise the population of existing settlements to the level that would enable a higher level of services than those currently provided. However under this model the existing settlements selected for development would have the potential to provide employment for the surrounding rural areas. The settlements identified for development are mainly out of the area of greatest flood risk lying to the west of the District.

5.4.3 As stated in the general discussion of results any discussion regarding the extent to which the Strategy uses brownfield over greenfield land is limited at this stage as the sites for development are not known. In general terms however it seems that Strategy C has a higher probability of development occurring on brownfield land as the Strategy will locate modest amount of development over 8 settlements rather than locating all development in one

settlement as under Strategy A, or two settlements as under Strategy B or under Strategy G where small levels of development will be located in rural locations.

Strategy C – Cluster Strategy			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	~	~	~
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	~	~	~
4) To increase levels of physical activity, especially among the young.	~	~	~
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	~	~	~
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	~	~	~
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+/-	+/-	+/-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	+/-	+/-	+/-
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	+/-	+/-	+/-
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	~	~	~
20) To conserve and enhance landscapes and townscapes.	~	~	~
21) To provide access to the countryside and appropriate land for leisure and recreation use.	~	~	~
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.5 Strategy D – Stroud Valleys Strategy

### 5.5.1 Characteristics of this strategy are as follows:

- 200 dwellings each in three locations and the remaining 1,400 dwellings to be located within a variety of smaller sites within the Stroud valleys. There would be a particular focus upon canal corridor regeneration sites.
- Indicative floorspace provision for employment would be for 4,760 sqm of general industrial at each of the 200 dwelling settlements and smaller sites providing 23.8 sqm per dwelling. General office floorspace provision would be for 1,900 sqm at each of the 200 dwelling settlements and smaller sites providing 23.8 sqm per dwelling. The 200 dwelling settlements would provide 5,000 sqm of warehousing and distribution with smaller sites providing 25 sqm per dwelling. Retail and leisure provision would be for 1,200 sqm at each of the 200 dwelling settlements and smaller sites providing 6 sqm per dwelling.

- 5.5.2 A particular focus of this Strategy is to focus development on canal corridor regeneration sites with the intention of securing future regeneration. The focus on regeneration is likely to facilitate the use of vacant and underused sites and building and the conversion and restoration of historic buildings for continued use helping to conserve them. Beneficial effects are anticipated on SA Objectives 12 and 13. These effects could potentially be significant depending on the extent to which development will be provided through vacant and underused sites and buildings and the degree to which greenfield sites will be required in addition to this. The Consultation Document does not indicate if the canal corridor regeneration sites identified for development would be able to accommodate the proposed development in full. Aston Down is a location that could accommodate any employment uses displaced from the regeneration referred to along the Canal Corridor. Limited housing could offer potential of live/work units and cross subsidy of employment intensification on site.
- 5.5.3 Regeneration of the Stroud Valley area could contribute to the restoration of the wider environment of the Stroud Valleys including restoration of canal towpaths. The canals provide a network of footpaths for outdoor recreation that would be readily accessible from the new developments. This would increase opportunities for physical activity and could also reduce short car journeys by due to the availability of safe, off-road walking and cycling routes.
- 5.5.4 There are potential beneficial and adverse effects of the Strategy on wildlife and biodiversity. The regeneration of the Stroud Valley area may bring about wider environmental improvements including work to improve existing green infrastructure and to provide new areas of open and green space. However the redevelopment of the area will create higher levels of disturbance associated with recreational pressure which could have an adverse effect on species which are sensitive to disturbance and likely to find such conditions unfavourable. Regeneration would have the potential to bring about landscape and townscape improvements although development would need to be sensitively designed and planned to enable this.
- 5.5.5 While influenced by the selection of site it is likely that the Strategy will involve a degree of development taking place in areas which are of higher risk of flooding. Adverse effects are anticipated on SA Objective 14 and SA Objective 18 as a consequence of this.

Strategy D – Stroud Valley Strategy			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	~	~	~
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	~	~	~
4) To increase levels of physical activity, especially among the young.	+	+	+
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	+	+	+
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	+	+	+
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+	+	+

Strategy D – Stroud Valley Strategy			
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	-	-	-
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	-	-	-
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	+/-	+/-	+/-
20) To conserve and enhance landscapes and townscapes.	+	+	+
21) To provide access to the countryside and appropriate land for leisure and recreation use.	+	+	+
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.6 Strategy E – Rural Combination Strategy

### 5.6.1 Characteristics of this strategy are as follows:

- 1,000 dwellings to be located at either Cam, Eastington, Brimscombe, west of Stonehouse, Sharpness or Whitminster; and
- 100 dwellings or less to be located at a minimum of ten locations, dispersed across the District to support smaller towns and villages. Towns and villages selected for development should have a 3<sup>rd</sup> tier status or above in terms of accessibility. Possible locations would include Berkeley, Bisley, Brimscombe & Thrupp, Cam, Chalford, Dursley, Eastington, Hardwicke, King’s Stanley, Kingswood, Leonard Stanley, Minchinhampton, Painswick, Rodborough, Simbridge, Stonehouse, Stroud, Upton St Leonards, Whitehill and Ruscombe, Whitminster, Woodchester (North and South) and Wotton-under-Edge.
- Indicative floorspace provision for employment would be for 23,800 sqm at each of the 1,000 dwelling settlements and then 1190 sqm at each of the 10 locations accepting 100 dwellings or less. General office floorspace provision would be for 9,050 sqm at each of the 1000 dwelling settlements and 475 sqm at each of the 10 settlements. The 1000 dwelling settlement would provide for 25,000 sqm of warehousing and distribution with a further provision of 1,250 sqm being provided at each of the 10 settlements. Retail and leisure provision would be for 6,000 sqm at the 1000 dwelling settlement and 500 sqm at each of the 10 settlements.

5.6.2 This Strategy contains elements of Strategy B in that there will be one settlement where 1,000 dwellings will be located at Cam, Eastington, Brimscombe, west of Stonehouse, Sharpness or Whitminster. The likely effects from this aspect of Strategy E are likely to be similar to the effects recorded for Strategy B. The Strategy will allocate a proportion of development in the Stroud Valley to facilitate regeneration projects and beneficial effects as discussed under Strategy D may arise from this although these are likely to be of reduced magnitude.

5.6.3 Under this Strategy, rather than locating a further 1,000 dwellings in another settlement, these dwellings will be dispersed across small towns and larger villages. The Strategy has the potential to provide for local housing need in the identified smaller towns and larger villages.

Strategy E – Rural Combination Strategy			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	+	+	+
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	+	+	+
4) To increase levels of physical activity, especially among the young.	+	+	+
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	+	+	+
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	+	+	+
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+/-	+/-	+/-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	+/-	+/-	+/-
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	?	?	?
20) To conserve and enhance landscapes and townscapes.	+	+	+
21) To provide access to the countryside and appropriate land for leisure and recreation use.	+	+	+
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.7 Strategy F – Dispersal Strategy

### 5.7.1 Characteristics of this strategy are as follows:

- Residential development would be distributed across at least twenty five sites in a wide range of the Districts parishes. Each location would accommodate 50 – 100 dwellings. The towns and villages selected for development should have 4<sup>th</sup> tier status or above in terms of accessibility. Possible locations would include Alkington, Berkeley, Bisley, Cam, Cambridge, Chalford, Dursley, Eastcombe, Eastington, Frampton, Stone, Hardwicke, Hinton, King's Stanley, Kingswood, Leonard Stanley, Middleyard, Minchinhampton, Nympsfield, Painswick, Randwick, Rodborough, Selsley, Standish, Stonehouse, Slimbridge, Stroud, Brimscombe & Thrupp, Upton St Leonards, Whiteshill & Ruscombe, Whitminster, Woodchester (North and South) and Wotton-under-Edge.
- Employment floorspace provision would be similarly dispersed with each of the twenty five sites. At each of the locations there would be 2,380 sqm general industrial, 550 sqm general office, 2,500 sqm warehousing and distribution and 600 sqm retail and leisure.

- 5.7.2 The Strategy is likely to provide to a greater degree for rural housing need than Strategies A and B where development would be located in larger amounts in fewer settlements. The Strategy is likely therefore to give greater opportunities for first time buyers and those key workers who may have fairly low salaries to live in these villages. Dispersing development in rural areas is likely to lead to at least a proportion of the planned development being undertaken on greenfield land. This is assuming that there is unlikely to be sufficient areas of previously developed land in these rural locations to accommodate all the development planned.
- 5.7.3 With the dispersal strategy the majority of the development locations are away from the west of the District and the principal areas of higher flood risk. However a proportion of the settlements identified for development do lie in this area. At this stage it is not known if the sites and areas identified for development are at a high risk of flooding.
- 5.7.4 As described in the general discussion of results section the location of warehousing and distribution and office space as small units in remote rural areas could lead to low occupancy and a reduced economic effect. However small units located in rural areas could be attractive to emerging and established small rural businesses. The approach of dispersing development as described under the Strategy has the potential to increase traffic on rural roads. This would be influenced by the degree to which new employment provision co-located with new dwellings acts to prevent in and out commuting.
- 5.7.5 The Strategy will locate residents of new dwellings in more rural settlements and through this has the potential to enable access by new residents to the countryside. However whether this potential will be realised will depend on the relationship between the new development and the existing countryside access network. In keeping with the dispersal approach under the Strategy the retail and leisure development which is planned over the plan period will be provided as small amounts of development in many locations.

Strategy F – Dispersal			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	~	~	~
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	~	~	~
4) To increase levels of physical activity, especially among the young.	~	~	~
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	+/-	+/-	+/-
6) To develop the local economy within its environmental limits.	+/-	+/-	+/-
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	+/-	+/-	+/-
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	~	~	~
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	~	~	~
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	-	-	-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	+/-	+/-	+/-
15) To ensure the air quality continues to improve.	~	~	~

Strategy F – Dispersal			
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	~	~	~
20) To conserve and enhance landscapes and townscapes.	~	~	~
21) To provide access to the countryside and appropriate land for leisure and recreation use.	?	?	?
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.8 Strategy G – Rural Community Strategy

### 5.8.1 Characteristics of this strategy are as follows:

- Residential development will be located over a wide range of small sites distributed across the District's parishes. At least 40 sites of 10 to 50 dwellings will be allocated. The locations for development could be in settlements which fall in any of the five tiers including those with 5<sup>th</sup> tier status. Possible locations would include Alkington, Arlingham, Berkeley, Bisley, Cam, Chalford, Dursley, Eastington, Frampton, Hamfallow, Stone, Hardwicke, Haresfield, Hillesley and Tresham, Hinton, King's Stanley, Kingswood, Leonard Stanley, Longney, Minchinhampton, Middleyard, Moreton Valence, North Nibley, Nailsworth, Nymphsfield, Painswick, Pitchcombe, Randwick, Rodborough, Saul, Selsley, Slimbridge, Standish, Stonehouse, Stroud, Thrupp, Upton St Leonards, Whiteshill & Ruscombe, Whitminster, Woodchester (North and South) and Wotton-under-Edge.
- Employment floorspace will be similarly dispersed through settlements in the District. Each of the 40 locations would receive indicative floorspace of 1,156 sqm general industrial, 475 sqm general office, 1250 sqm warehousing and distribution and 300 sqm retail and leisure.

5.8.2 The Strategy has most in common with Strategy F although the degree of dispersion will be more pronounced with smaller amounts of development spread over a greater number of locations. It is likely that the effects of Strategy G are likely to be broadly similar to those identified for Strategy F. As with Strategy F the Strategy has the potential to provide for rural housing need to a greater degree than Strategies which focus more on concentrating development in fewer locations. As Strategy G is the most dispersed option it has the potential to provide for rural housing need to the greatest extent based on the assumption that rural housing need is likely to be spread across the District with unmet demand for rural housing in each of the identified locations for development. As discussed previously small units of warehousing and distribution and office employment accommodation may suffer from low occupancy. Conversely small units may provide suitable accommodation for existing and new small rural businesses. A proportion of the settlements identified as locations for development fall within the higher flood risk area to the west and around the river network although the majority of the settlements are located outside of this area. As under Strategy F the degree to which the Strategy will facilitate access to the countryside will be influenced by the manner in which new development is located in relation to the existing countryside network.

5.8.3 It is thought that although the development planned in each of the locations is modest (10 to 50 dwellings and associated employment, retail and leisure provision) the rural nature of a proportion of the settlements is likely to mean that at least some of this development will need to be accommodated on greenfield sites. This is based on the assumption that small rural

villages of the type identified as locations for some of the planned development are unlikely to have any notable areas of previously developed land.

Strategy G – Dispersed Rural Strategy			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	~	~	~
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	~	~	~
4) To increase levels of physical activity, especially among the young.	~	~	~
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	+/-	+/-	+/-
6) To develop the local economy within its environmental limits.	+/-	+/-	+/-
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	+/-	+/-	+/-
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	~	~	~
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	~	~	~
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	-	-	-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	+/-	+/-	+/-
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	~	~	~
20) To conserve and enhance landscapes and townscapes.	~	~	~
21) To provide access to the countryside and appropriate land for leisure and recreation use.	?	?	?
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 5.9 Strategy H – Hybrid Strategy of A, B and D

### 5.9.1 Characteristics of this new strategy are as follows:

- 1,000-1,500 dwellings to be located west of Stonehouse;
- Stroud Valleys (various sites): 300 - 800 dwellings;
- North East of Cam: 200 - 500 dwellings;
- Hunts Grove extension: 500 - 750 dwellings;
- Aston Down: 100 - 200 dwellings;
- Sharpness: 200 - 250 dwellings;

- Other Towns and Parishes who have suggested that they are prepared to take housing will be asked to identify sites and numbers.
  - Indicative employment provision would be such that there would be an intensification of employment uses at Aston Down and Sharpness and the provision of up to 3,000 jobs west of Stonehouse, up to 1,600 jobs in the Stroud Valleys and up to 1,500 jobs north east of Cam.
- 5.9.2 The Strategy is a hybrid of Strategies A, B and D in that it will both concentrate a large proportion of development in one location (Strategies A, B and E) and focus development on canal corridor regeneration sites with the intention of securing future regeneration (Strategy D). North east of Cam is also identified for employment-led development, with a modest allocation of housing, and modest housing development with intensification of existing employment uses is identified for Sharpness and Aston Down. The existing housing commitment at Hunts Grove is also included.
- 5.9.3 There are beneficial effects likely in relation to concentrating a large proportion of development west of Stonehouse. Certain services such as GP surgeries or leisure provision require a certain threshold of people within their catchment area to be viable. Locating a large proportion of development together rather than dispersing it could therefore boost service provision. This would benefit existing residents as well as those living in the new dwellings. However focusing such a large proportion of development on one location could limit the opportunity for new development to facilitate the provision of improved services to other settlements in the District.
- 5.9.4 Locating employment development in the area of Stroud, Cam and Stonehouse means that it will be more favourably located to the rail and strategic road network than the more rural locations for development proposed under other Strategies. However it is possible that ease of access out of the District may act to exacerbate the current employment situation where there are high levels of out commuting unless equivalent skilled jobs for which Stroud residents are qualified are provided through the new employment provision.
- 5.9.5 The focus on regeneration in the Stroud Valley area offers benefits in relation to several Sustainability Objectives. It is likely to facilitate the use of vacant and underused sites and buildings and the conversion and restoration of historic buildings for continued use, thus contributing positively towards meeting SA Objectives 12 and 13, although development would need to be sensitively designed and planned to enable this. However, it is likely that the provision of the scale of new residential and employment development at west of Stonehouse would require at least some greenfield development. It is therefore the case that an adverse effect is also anticipated in respect of SA Objective 13 as this aspect of the Strategy is unlikely to maximise the re-use of land and buildings. It must be noted that the GVA Employment Land Review Study (2007) recognised that demand for employment land within Stroud District is driven by demand for land close to the M5. Stonehouse, to the west of Stroud town centre, has recently seen the construction of new office units as rental levels have proven to be sufficient to support speculative business development owing to its accessibility.
- 5.9.6 Regeneration of the Stroud Valleys area could contribute to the restoration of the wider environment of the Stroud Valleys including restoration of canal towpaths (SA Objective 9). The canals provide a network of footpaths for outdoor recreation that would be readily accessible from the new developments. This would increase opportunities for physical activity (SA Objective 21) and has the potential to reduce short car journeys due to the availability of safe, off-road walking and cycling routes (SA Objective 8). However, it is unclear whether the scale of development proposed in this area will have an effect.

- 5.9.7 There are potential beneficial and adverse effects of the Strategy on wildlife and biodiversity. The regeneration of the Stroud Valley area may bring about wider environmental improvements including work to improve existing green infrastructure and to provide new areas of open and green space. However the redevelopment of the area will create higher levels of disturbance associated with recreational pressure which could have an adverse effect on species which are sensitive to disturbance and likely to find such conditions unfavourable.
- 5.9.8 In common with Strategies A and B the use of District Heating Schemes may be possible although the viability of this will need to be tested.
- 5.9.9 While influenced by the selection of sites it is likely that the Strategy will involve a degree of development taking place in areas which are of higher risk of flooding. However, given that such effects are dependent upon the location of individual sites and the type of development proposed, a determination of the potential effects is not possible at the strategic level and individual site-level flood risk assessments will be required.

Strategy H – Hybrid Strategy of A, B and D			
SA Objective	Timeframe		
	ST	MT	LT
1) To meet the challenge of a growing and ageing population.	+	+	+
2) To encourage social inclusion, equity, the promotion of equality and a respect for diversity.	~	~	~
3) To maintain and improve the community's health with accessible healthcare for residents.	+/?	+/?	+/?
4) To increase levels of physical activity, especially among the young.	+/?	+/?	+/?
5) To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	?	?	?
6) To develop the local economy within its environmental limits.	?	?	?
7) To maintain and enhance employment opportunities within the District to meet both current and future needs.	?	?	?
8) To promote traffic reduction and encourage more sustainable alternative forms of transport.	?	?	?
9) To restore, manage and promote the canal towpaths as part of the sustainable transport infrastructure.	+	+	+
10) To reduce crime and anti-social behaviour.	~	~	~
11) To provide affordable and decent housing to meet local needs.	++	++	++
12) To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of the built and cultural heritage.	+/?	+/?	+/?
13) To implement energy efficiency through building design to maximise the re-use of land and buildings, recycle building materials and use renewable sources of energy.	+/-	+/-	+/-
14) To implement strategies that help mitigate global warming and adapt to unavoidable climate change within the District.	?	?	?
15) To ensure the air quality continues to improve.	~	~	~
16) To protect and enhance soil quality.	~	~	~
17) To maintain and enhance the quality and quantity of ground and surface waters.	~	~	~
18) To manage and reduce the risk of flooding in new and existing development.	?	?	?
19) Create, protect, enhance, restore and connect habitats, species and/or sites of biodiversity or geological interest.	+/-	+/-	+/-
20) To conserve and enhance landscapes and townscapes.	+	+	+
21) To provide access to the countryside and appropriate land for leisure and recreation use.	+	+	+
22) To minimise the amount of waste produced, maximise the amount of material that is reused or recycled, and seek to recover energy from the largest proportion of the residual material.	~	~	~

## 6 Conclusions

- 6.1.1 In sustainability terms there are both benefits and disbenefits to the approaches of concentrating and dispersing development. The most favourable approach for the District will therefore be determined by which of the benefits offered by the Strategies are considered to be the most important for Stroud District. It may be that a combined approach such as Strategies E or H, which have elements of both a concentrating and dispersing approach, would be most favourable. Whilst both Strategies perform relatively well in this assessment, Strategy H could be considered stronger as it takes account of the higher housing requirement figures and has less doubt on the number, potential location and associated impacts. Strategy D performs strongly against the SA Objectives as it brings benefits associated with regeneration but in spatial terms may not distribute the benefits of development across the whole District.
- 6.1.2 Concentrating development in fewer, larger settlements is likely to be beneficial in terms of accessibility. For receiving settlements new housing provision which increases population may facilitate the provision of higher order services which require a certain threshold population to be viable. Any examination of the effects of the Strategies on service provision has been limited as at this stage of the process the Consultation Document does not discuss the planned arrangements for service provision in any detail. The Council intends to produce a Stroud Infrastructure Delivery Plan (SIDP) to accompany the publication/preferred strategy stage, as well as looking at the viability and deliverability implications.
- 6.1.3 Potentially the approach of concentrating development in larger amounts in the more accessible locations could secure greater economic benefits of the planned warehousing and distribution and office employment developments through facilitating high occupancy rates. However any assessment of the economic effects of the Strategies, and the effects on transport, need to be informed by an examination of existing commuting trends to better understand the extent to which employment growth in the proposed locations will minimise travel out of the District for work.
- 6.1.4 The dispersal strategy is likely to bring benefits by providing new dwellings in rural locations to provide for first time buyers and key workers who may not otherwise be able to afford to live in these locations. However the dispersal strategy may not bring the corresponding infrastructure improvements and historically may be more susceptible to non-delivery due to a depressed national economy. Newer models of service provision such as an increased emphasis on providing care to the elderly in their own homes may act to increase the necessity of providing such affordable and key worker housing throughout the District if increased travel associated with such provision is to be avoided.

## 6.2 Mitigation

- 6.2.1 The Strategies have been based on the co-location of residential and employment development. This is in keeping with government policy. For Stroud there are existing high levels of commuting within and out of the District. A detailed spatial understanding of where residents are commuting to work within and out of the District could assist in informing the location of residential and employment development. These could be established through a spatial representation of commuting flows and an examination of any existing and future capacity issues in transport infrastructure. An alternative approach to the co-location of residential and employment development would be to focus employment to address existing out commuting flows and to anticipate and prevent any commuting flows arising from new residential development. A combined approach would also be a possible option.

- 6.2.2 Viability is a key consideration which will need to be examined in the process of option evaluation and selection. The issue of viability will influence the degree to which new development can fund new buildings and infrastructure required for service provision. Where existing buildings and infrastructure will be required to provide for additional demand from new development the effects of this on service provision for new and existing residents will need to be understood against a backdrop of likely funding cuts to services from central government in the future. The Consultation Document does not discuss how service provision will be made under the various scenarios although it is anticipated that this is a consideration that the Council will address during the process of options evaluation and selection. As stated earlier, discussions are taking place with local service providers with the intent to produce a Stroud Infrastructure Delivery Plan (SIDP). These are likely to be beneficial to ensure that the Strategy selected is viable in terms of ensuring satisfactory levels of service provision.
- 6.2.3 An alternative approach to development distribution which has not been considered is to focus development on those areas which are at low risk of flooding. An additional consideration is the extent to which new development can be used to address existing deficits in open and green space provision.