Transformation and Sustainability

SHEFFIELD DEVELOPMENT FRAMEWORK

CORE STRATEGY (Submission Version)

SUSTAINABILITY APPRAISAL REPORT

Appendix 3
Sustainability Appraisal Matrices - Core Strategy Policies and Rejected Options

Development Services
Sheffield City Council
Howden House
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SHEFFIELD
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September 2007

BUSINESS AND INDUSTRY

OPTIONS SUMMARY SHEET **Date of Appraisal: 6 January 2006**

Issue: Land for Employment and Economic Development

Policy SB1 (Option B1e)

A Provision will be made for 43.5 hectares of land per year for new, expanding and relocating business and industry, including:

(a) 4.5 hectares for offices (use class B1 (a))
(b) 8 hectares for other businesses (use classes B1 (b) and (c))
(c) 31 hectares for general industry and storage/distribution (use classes B2 and B8 with associated B1 (b) and (c))

A 5-year supply of each type of employment land, which is available and free of major constraints, will be maintained at all times.

Rejected Options

B Provision for business and industry land is based solely on past rates of land take-up (formerly emerging option B1a) (Also 'continue with UDP')

C Provision for business and industry land is based on past rates of land take-up, but with adjustments for policy impacts and predicted economic changes (formerly emerging option B1b)

D Provision for business and industrial land is based on expected future job requirements and targets

E No provision for safeguarding industry and business land is made (formerly emerging option B1d)

F Provision for employment land is based on past rates of business and industrial floorspace take-up, but with an additional 50% 'margin of choice', to allow for further growth (Option B1f)

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
1. A strong economy with good job opportunities available to the whole community	✓✓	X	✓	✓	XX	✓	A – would result in a wide distribution of employment land, based on the demand requirements of different businesses. B – some benefits as a result of new allocations to meet new requirements, but it is considered that there will be overriding negative impact by not allowing for greater provision that perpetuates shortages created by historic restrictions on supply. C/D – would result in a wide distribution of employment land, but may not reflect the true level of latent or potential demand E - This risks of losses of

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							employment land to other, more profitable uses (especially housing), and a reduction in employment land development rates, thereby reducing the availability of jobs in many areas F – Would result in sufficient land initially, but could result in over-allocation that could have an adverse economic impact
2. Education and training opportunities which build the skills and capacity of the population	✓	0	✓	✓	0	✓	A/C/D/F – Would be expected to facilitate increasing levels of employment that would require some new skills from the existing workforce. Some negative impact could result from an influx of workers and families that could lead to pressure on school places.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	0	0	0	There could be some pressure on housing requirements if increasing population results

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							from meeting job requirements, but this should be manageable if housing supply is adequate.
4. Conditions and services which engender good health	X	X	X	X	X	X	Encouraging economic growth is likely to lead to increased carbon emissions and other pollutants from buildings and traffic that can create health problems. The impact can be reduced by allocating sites that are highly accessible by public transport or sites where accessibility can be improved. Also, by promoting energy conservation and use of renewables in buildings. A/C – impact on traffic levels likely to be greater for these options. Option D can also do this by encouraging non-employment development of allocated land
5. Safety and security for people and							

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
property	0	0	0	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓	0	✓	✓	0	✓	Increasing levels of new employment provision could lead to better facilities due to additional demand for cultural, leisure and recreation facilities and more scope for new development to provide a contribution to such facilities.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	X	X	X	X	X	X	A/B/C/D/F – possible negative impact because higher allocations more likely to lead to land being allocated in locations that are less accessible by public transport. Therefore, need to carefully assess accessibility of any additional land that is allocated. E – lack of new employment opportunities may lead to more travelling to jobs.
8. An efficient transport network which							A/B/C/D/F - increased

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
maximises access and minimises detrimental impacts	✓/X	✓/X	✓/X	✓/X	X	✓/X	development impacts on capacity of transport networks but can also deliver improvements. Need to assess capacity of road and public transport networks around allocated sites. E – lack of new employment opportunities may lead to journeys by people travelling to jobs.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓	✓	✓	✓	A/B/C – Provision of employment land at these levels will require mostly brownfield sites due to the low level of allocation of greenfield sites. There will be a need to minimise the risk of over optimistic provision that could result in brownfield sites remaining undeveloped. However, greater allocations are also likely to lead to

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							increased take up of sites. E – Could result in re-use of employment land and buildings for more profitable uses (in the short-term) although, in the longer term, lack of economic growth is likely to harm take up of sites. There will also be negative amenity issues if industrial sites are targeted for housing development.
10. A quality built environment	✓	✓	✓	✓	✓	✓	All options will encourage the redevelopment of land to varying degrees and for varying mixes of uses. New development will enhance the built environment in most cases where land and buildings are currently vacant and derelict.
11. Historic environment protected and enhanced	✓	0	✓	✓	0	✓	A/C/D/F - This can be achieved by the re-use of existing historic buildings and structures.

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							Options A and C encourage greater provision of land for employment than has been the case in the past. This could encourage relocation of companies from older premises, encouraging the re-use of these buildings. B/E - neither of these options have any significant direct impact on whether this will occur.
12. Quality of natural landscapes maintained and enhanced	X	X	X	X	X	X	All options that encourage development will put some pressure on natural resources and inhibit the improvement of natural landscapes. Option D can also do this by encouraging non-employment development of allocated land.
13. Wildlife and important geological sites conserved and enhanced							All options that encourage development will put some pressure on wildlife. Option E

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
	X	X	X	X	X	X	can also do this by encouraging non-employment development of allocated land.
14. Soil resources conserved	X	X	X	X	X	X	All options that encourage development will put some pressure on natural resources and have impact on soil resources. Option D can also do this by encouraging non-employment development of allocated land.
15. Water resources protected and enhanced	0	0	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	X	X	X	X	X	X	Encouraging economic growth is likely to lead to increased carbon emissions and other pollutants from buildings and traffic. The impact can be reduced by allocating sites that are highly accessible by public transport or sites where accessibility can be improved. Also, by promoting energy

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							conservation and use of renewables in buildings. Option E can also do this by encouraging non-employment development of allocated land
17. Minimal risk to human life and property from flooding	✓/X	✓/X	✓/X	✓/X	✓/X	✓/X	All options that encourage development could increase risk of flooding by creating runoff areas and inhibiting natural drainage. Relative impact of development will be dependent on location and the use of mitigation measures. Proposed Use Classes are considered Less Vulnerable.
18. Prudent and efficient use of energy and mineral resources	X	X	X	X	X	X	All options that encourage economic growth are likely to lead to increased energy consumption. Option E can also do this by encouraging non-employment development of allocated land. But the impact can be reduced by

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							promoting energy conservation and the use of renewables in buildings.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	X	X	X	X	X	X	All options that encourage increased economic activity are likely to result in greater production of waste materials. Option E can also do this by encouraging non-employment development of allocated land. But new development can be encouraged to provide recycling facilities.
20. Efficient use of physical infrastructure	✓/X	✓/X	✓/X	✓/X	✓/X	✓/X	All options that encourage increased economic activity are likely to result in greater pressure on the physical infrastructure, although this depends on the capacity of the infrastructure in area. Option D can also do this by encouraging non-employment development of allocated land. But new

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	
							development can also result in improvements to the physical infrastructure.

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	

Comments on Overall Performance of Different Options

The policy performs better than the other options, although only better than all on sustainability objective number 1. The policy results in the widest distribution of employment land, and includes an allowance for the demand requirements of different businesses. The policy would be expected to facilitate increasing levels of employment that would encourage new skill levels from the existing workforce. Increasing levels of new employment provision could lead to more demand for cultural, leisure and recreation facilities. More scope for new development can contribute to improving the transport network and result in improvements to the physical infrastructure. Provision of additional employment land at these levels will require mostly brownfield sites due to the low level of allocation of greenfield sites. New development will enhance the built environment in most cases where land and buildings are currently vacant and derelict, and the policy also could encourage the relocation of companies from older premises, encouraging the re-use of these buildings.

All options promote new employment provision, much of which (though not all) is likely to be in locations that are highly accessible by public transport. There will also be an increase in the number of jobs available to those currently out of employment or seeking new opportunities to improve their salary levels, including young people. New employment provision will be more modern and, consequently, more accessible to people with physical disabilities. It can also encourage more childcare facilities to be provided in areas where there are significant numbers of employees.

Sustainability Objective	Policy	Rejected Options					Comments
	A	B	C	D	E	F	

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

Allocation levels may lead to land requirements outside of the most accessible locations, so there is a need to carefully assess the accessibility of any additional land that is allocated. Some negative impact could result from an influx of workers and families that could lead to pressure on school places – this can be considered through the sustainability appraisal of development sites. Encouraging economic growth is also likely to lead to increased carbon emissions and other pollutants from buildings and traffic, that will have detrimental health impacts, but this impact can be reduced by concentrating on allocating sites that are highly accessible by public transport or sites where accessibility can be improved. Increased development levels also impact on the capacity of transport networks, but this can be addressed through highway improvements through new developments.

All options that encourage development will put some pressure on wildlife and on natural resources, inhibit the improvement of natural landscapes and have some impact on soil resources, energy consumption and waste production. There will be a need to accept some impact but to mitigate as far as possible, such as by promoting energy conservation, use of renewables in buildings and provision of recycling facilities. Increased flooding risks may require drainage infrastructure improvements.

OPTIONS SUMMARY SHEET **Date of Appraisal: April 2007**

Issue: Business and Industrial Development on Brownfield and Greenfield land

Policy SB2 (Formerly emerging option B3a)

A Priority for new business and industry development will be given to previously developed land over greenfield land and locations where it would also be accessible by public transport. No more than 5 hectares or 2.5% of all land developed over any five-year period, whichever is the lowest, will be greenfield land.

Rejected Option

B No preference is given to either greenfield or brownfield sites for new business and industry development (formerly emerging option B3b) (Also 'continue with UDP')

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	X	✓	A – The choice of development opportunities for developers will be limited, and brownfield land can be more expensive to develop. But the majority of sites are previously developed, so the limitation on choice should not be severe. Also, there is a greater chance of development grants for the development of brownfield sites.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			B – allowing greenfield development gives a wider choice of sites, with potentially fewer constraints to potential developers.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	0	0	
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	0	A – Prioritising sites close to public transport will minimise travel needs
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	0	A – Prioritising sites close to public transport will make a better use of the existing system.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	XX	A – This option gives strong encouragement to the development of brownfield land B – Gives no encouragement to reusing land, and given that developers often favour developing greenfield land, there will pressure for new development on greenfield

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			sites.
10. A quality built environment	✓	0	A – Reclamation of previously developed sites could improve the built environment
11. Historic environment protected and enhanced	✓	0	A – Could encourage the redevelopment of historic buildings and safeguard their future
12. Quality of natural landscapes maintained and enhanced	✓	X	A – Offers protection to natural landscapes by favouring brownfield development B – Greenfield allocations more likely to harm landscape
13. Wildlife and important geological sites conserved and enhanced	✓	X	A – Offers protection to wildlife and important geological sites by favouring brownfield development B – Greenfield allocations more likely to harm biodiversity
14. Soil resources conserved	✓	X	A – Offers protection to soils by favouring brownfield development B – Greenfield development would result in loss of soils
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	
17. Minimal risk to human life and property from flooding	0	0	
18. Prudent and efficient use of energy and mineral			

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓	X	Greenfield development is less likely to be close to existing physical infrastructure

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	

Comments on Overall Performance of Different Options

The policy performs better than the rejected option overall. Re-using land is always likely to be an environmentally sustainable option, but can have some economic ramifications. However, Sheffield has a rich industrial history that has resulted in large areas of land being used for industrial purposes. As the economy restructures, much of this land is becoming available again for re-use for modern business purposes.

There are advantages of prioritising sites close to public transport, which will minimise travel needs and make better use of the existing transport network. The policy gives strong encouragement to the development of brownfield land. The reclamation of previously developed sites could improve the built environment, particularly where derelict and unsightly building are removed, and where the redevelopment of historic buildings is encouraged, that would safeguard their future. Brownfield development is also more likely to be close to existing physical infrastructure.

There are also environmental benefits that will result from favouring the development of brownfield sites over greenfield. This option will offer protection to natural landscapes, wildlife and important geological sites, and also help to preserve soil resources.

Prioritising employment sites close to public transport will improve accessibility to employment for those on low incomes who cannot afford private transport and are reliant on public transport.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

The choice of development opportunities for developers will be somewhat more limited as a result of the policy. As brownfield land can be more expensive to develop in some cases, encouragement to re-use brownfield sites may be needed ('carrots'), as well as the 'stick' approach to restrict greenfield development. This would be through the availability and use of funding, as there is a greater chance of development grants for the developing brownfield sites.

However, as the majority of Sheffield's business and industry sites are previously developed the limitation on choice should not be severe.

OPTIONS SUMMARY SHEET **Date of Appraisal: April 2007**

Issue: Locations for Office Development

Policy SB3 (Option B2e)

A Office development will take place in the following locations:
(a) the City Centre
(b) in accessible locations at the edge of the City Centre
(c) around Meadowhall
(d) around Hillsborough and Crystal Peaks transport interchanges
(e) Tinsley Park (south of Europa Link)
(f) in district centres, on high-frequency public transport routes in urban areas and near Supertram stops (small-scale offices only)

Development in the City Centre and at its edge should include at least 65% of total office development in the city.

Rejected Options

B Offices above a certain size will only be allowed in accessible locations such as the City Centre or near transport interchanges at Meadowhall, Hillsborough Barracks and Crystal Peaks (formerly emerging option B2b)

C Offices above a certain size are only allowed in accessible locations such as the City Centre or near transport interchanges at Meadowhall, Hillsborough Barracks and Crystal Peaks, and also a single out-of-centre location. (formerly emerging options B2c)

D Offices can be developed anywhere in the City (formerly emerging option B2d) (Also ‘continue with UDP’)

E Major office development is allowed only in the City Centre (formerly Emerging Option B2a)

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓	✓	✓/X	✓/X	A – This option allows for a significant level of office development in a number of areas, concentrating on the most accessible locations. These areas will provide opportunities to most people and encourage a range of office development. Some restriction is placed on the amount of office development in non-City Centre locations, so some desired development would be restricted, but this is considered to be at the right level to benefit the City Centre and City as a whole, and there is no restriction on the size of developments allowed. B – This option allows for a significant level of office development in a number of areas, but concentrated in areas that are highly accessible. As such it will provide job opportunities for a large proportion of the community. It does not allow for development at a significant scale outside

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						of these highly accessible locations so some people may have difficulty accessing jobs - all these locations are well served by public transport but, for many people, reaching offices in locations outside the City Centre would involve 2 trips by public transport. C - This option also allows for a significant level of office development in a number of areas, concentrating on the most accessible locations. These areas will provide opportunities to most people and encourage a range of office development, but there could be problems accessing an out-of-centre location for many people. D – Likely to provide a good choice of sites for potential investors, but offices could be located in either accessible or inaccessible locations and the actual impact would be dependant upon the specific site. E – This option would also deliver economic benefits, as the City Centre is

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						the most suitable location, but a blanket restriction on development anywhere else would restrict economic development by reducing choice for occupiers and could harm the City's economy
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	New office development encourages related training provision. The amount of office development will influence the level of training provision. However, the options are about the location of development, not necessarily the scale, so it is considered that there will be no significant difference in the impact of the different options.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	0	0	
4. Conditions and services which engender good health	✓	✓✓	✓/X	X	✓✓	A/B – both options concentrate offices in locations which are accessible by public transport, although option B restricts development to the areas of highest accessibility. Reducing journeys will help to restrict emissions, which will improve

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						health. C – An out of centre development is likely to lead to increased trips by car but most development would be concentrated in accessible locations D – likely to result in increased journeys. E – Concentrates offices in the single most accessible location
5. Safety and security for people and property	0	0	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓	✓	✓	X	✓✓	A/B/C – Focusing office employment in the City Centre encourages workers to visit cultural, leisure and recreation facilities. D – Could result in employment being located away from these facilities. E – Requires the biggest focus of development in the City Centre
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	✓✓	✓	X	✓X	A/B/C – These locations are all accessible to varying degrees. Most people will be able to access these locations and the options make best use of existing public transport network, although an out of

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						centre location would be likely to be relatively inaccessible, so B scores higher. D – This option would give no guarantee that development would take place in accessible locations. E – The capacity of the City Centre to cater for all office development may be restricted
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	✓	✓	X	✓X	A/B/C – The City Centre is the main focus of the public transport network but there is a risk of greater traffic congestion if all major office development is concentrated there, so this option also allows development in a range of other locations that are also relatively accessible. Further SDF work will determine the capacity of the network in relation to proposed levels of development. D – No correlation between office location and transport E – The capacity of the City Centre to cater for all office development may be restricted

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓	X	✓	A/B/C/E – The specified locations all correspond to areas that are almost exclusively previously developed. D – could include some greenfield sites - there would be no guarantee that the locations favoured by developers would involve brownfield sites.
10. A quality built environment	✓	✓	✓	X	✓	A/B/C/E – Concentrating developments in the City Centre creates some pressure for better design standards – the area is covered by the Urban Design Compendium
11. Historic environment protected and enhanced	✓	✓	✓	X	✓	A/B/C/E - Developers are more likely to seek to redevelop historic sites if there are limited alternative sites available. D – Developers are likely to avoid costly redevelopment of historic sites if there are several alternative sites available.
12. Quality of natural landscapes maintained and enhanced	0	0	0	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	0	
14. Soil resources conserved						

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
	0	0	0	0	0	
15. Water resources protected and enhanced	0	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓✓	✓	X	✓/X	A/B/C – both options concentrate offices in locations which are accessible by public transport, although option B restricts development to the areas of highest accessibility. Reducing journeys will help to restrict emissions. D – Likely to result in increased journeys. E – This option could create the greatest City Centre congestion, whilst also encouraging the most use of City Centre public transport.
17. Minimal risk to human life and property from flooding	✓X	✓X	✓X	✓X	✓X	A/B/C/E – A large proportion of the City Centre, Meadowhall and a small proportion of Tinsley Park is situated within Zone 3a High Probability. However, the Use Class is considered Less Vulnerable. D – Ignores possible flood risk impacts, but could also avoid some of the high risk areas.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
18. Prudent and efficient use of energy and mineral resources	✓	✓	✓	X	✓	A/B/C – Major City Centre developments could have potential for connecting to the Combined Heat and Power network.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	
20. Efficient use of physical infrastructure	✓	✓	✓	X	✓	A/B/C/E - Infrastructure provision is likely to be greatest in the City Centre.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	

Comments on Overall Performance of Different Options

The policy performs better than the rejected options in economic terms, but not as well as other options, particularly B and E, which focus development even more on the City Centre and other accessible locations. The rejected option E concentrates all office development in the City Centre, which has many equality and environmental sustainability advantages, but not the economic advantages that the policy has.

The environmental benefits of focusing major office development in locations that are accessible by public transport can lead to some negative regeneration impacts if it restricts the locational choices for developers. But the range of locations is considered to be sufficient to meet the needs of most developers and occupiers.

The policy allows for a significant level of office development in a number of areas, whilst concentrating on the most accessible locations. It provides a balance between the need to provide for sufficient locations to give businesses a good choice, whilst also ensuring that developments are accessible, thus offering opportunities to most people and encouraging a range of office development. This is the option that allows for the highest level and diversity of office development in appropriate locations. The policy requires most office employment to be in accessible locations that encourages workers to visit cultural, leisure and recreation facilities that will also tend to be located in these areas. The policy also concentrates offices in locations that are accessible by public transport, particularly the City Centre, as the main focus of the public transport network – this has beneficial effects in terms of reducing emissions and improving health.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
But there is a risk of greater traffic congestion if all major office development is concentrated there, so the policy also allows development in a range of other locations that are also relatively accessible. The specified locations all correspond to areas that are almost exclusively previously developed brownfield land. By concentrating development in the City Centre, the policy creates some pressure for better design standards (the area is covered by the Urban Design Compendium). Other advantages of the option are that major City Centre developments could have potential for connecting to the Combined Heat and Power network and infrastructure provision is likely to be greatest in the City Centre. In terms of equality advantages, these locations are all accessible by public transport to varying degrees, which is necessary for many on low incomes. **Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy** It is important to improve public transport and reduce car travel to the out-of-centre location, so the policy seeks to achieve this at Sheffield Business Park, but we need to ensure that the level of public transport provision in this location continues to improve. There is also a need to ensure that the flexibility of choice afforded to developers by the range of locations does not lead to an unacceptable level of trip generation, and that the accessibility advantages of the City Centre and other public transport hubs are fully exploited.						

OPTIONS SUMMARY SHEET **Date of Appraisal: 6 January 2006**

Issue: Locations for Manufacturing, Distribution/ Warehousing and other Non-Office Businesses

Policy SB4 (Formerly emerging option B5a)

A Manufacturing, distribution/warehousing and non-office businesses will be located at:

(a) the Lower Don Valley (including Tinsley Park, Attercliffe/Newhall and Parkway/Kettlebridge)
(b) the Upper Don Valley (from the City Centre to the Claywheels area)
(c) the Sheaf Valley (Heeley area)
(d) the Blackburn Valley
(e) Orgreave
(f) Holbrook/ Oxclose
(g) Thorncliffe and Smithywood
(h) Stocksbridge.

Innovative, new and expanding businesses (especially high technology manufacturing and knowledge-based services) will be promoted in areas close to centres of research, including locations near the universities, Tinsley Park, the Sheffield Teaching Hospitals and The Children's Hospital.

Rejected Option

B No specific locations or type of location will be promoted for manufacturing and distribution/warehousing (formerly emerging option B5b) (Also 'continue with UDP')

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓/X	0	A – Locating away from housing restricts the availability of employment close to where people live. But access to the transport network is generally highly desirable for these businesses, so the general level of employment provision would benefit from the option.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	✓	X	A – Locating distribution uses away from housing should improve air quality, thus improving health. B – This option could allow for distribution and warehousing uses to locate near to housing where they could cause a nuisance, but most companies would seek to avoid this.
5. Safety and security for people and property	✓	X	A – Would make it less likely that HGVs have to drive through residential areas, thus improving road safety B – Could lead to more HGVs driving through residential areas, which could be detrimental to road safety.
6. Good cultural, leisure and recreation facilities available to all	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of	X	0	A – Locating these uses away from housing increases employees trips to work although there are possible

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
transport			mitigating transport advantages, such as possibly releasing vehicle congestion on other parts of the network and also relating to non-people movements of goods and materials that improve access of distribution goods to the transport network.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	0	A – likely to reduce heavy vehicle congestion on minor roads in residential areas and improve access to major transport networks.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	
10. A quality built environment	0	0	
11. Historic environment protected and enhanced	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions			A - Locating distribution uses away from housing should

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
minimised and a managed response to the effects of climate change	✓	X	improve air quality. B – This option could allow for distribution and warehousing uses to locate near to housing where they could cause a nuisance, including through vehicle emissions.
17. Minimal risk to human life and property from flooding	✓/X	X	A – Parts of the Lower Don, Blackburn Valley, the Upper Don, the Sheaf Valley (Heeley area), Orgreave, Thorncliffe and Smithywood, and Stocksbridge are situated within Zone 3a High Probability. However, the Use Class is considered Less Vulnerable B - Ignores possible flood risk impacts
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓	0	A - This option would focus manufacturing and distribution/warehousing in locations that are established and will tend to have existing infrastructure.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	

Comments on Overall Performance of Different Options

The policy performs better than the rejected option overall. Access to the national transport network is generally highly desirable for these businesses, so these locations should meet their needs to a large degree and help support their business, which in turn can improve the general level of employment provision. Locating distribution uses away from housing should improve air quality and improve health and road safety, as it would make it less likely that HGVs have to drive through residential areas. The option is likely to reduce heavy vehicle congestion on minor roads in residential areas and improve access to major transport networks. The policy will result in some reduction in distances goods are transported to and from the national network. This option would focus manufacturing and distribution/warehousing in locations that are established and will tend to have existing infrastructure.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

Switching from road to rail and canal for freight movements will improve the scoring, which is based on an assumption that most distribution takes place by road. Locating these uses away from housing increases employees trips to work, although there are possible mitigating transport advantages such as possibly releasing vehicle congestion on other parts of the network and also relating to non-people movements of goods and materials that improves access of distribution goods to the transport network. Other Core Strategy policies will help to improve transport options to these identified locations that should improve opportunities for disadvantaged groups.

RETAIL AND BUILT LEISURE

OPTIONS SUMMARY SHEET **Date of Appraisal: 2007**

Issue: Hierarchy of centres: The City Centre

Policy SS1 (a mixture of Emerging Options S1b, c and S2a; preferred options PS1, 5) (Similar to continuing with the UDP)

A New shops and leisure facilities with city-wide and regional catchments will be concentrated in the Core Retail Area and immediately adjacent shopping streets of the City Centre, which will be strengthened through a major retail-led, mixed-use regeneration scheme, which will form the New Retail Quarter.

Meadowhall Shopping Centre will remain at around its present size and major non-food retail development will not occur outside the Core Retail Area and District Centres and their edges.

Rejected Option

B Focussing primarily on dispersed development in centres throughout the city with small shops encouraged outside existing shopping centres. (formerly emerging option S1a)

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓	Shops and leisure development can provide jobs wherever they are located but development in the city centre will also help regenerate the non-retail economy.
2. Education and training opportunities which build the skills and capacity of the population	✓	✓	New shops and leisure development can provide training wherever they are located.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	0	0	
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	X	Cultural, leisure, and recreation facilities that serve large parts of the city and depend on large numbers of customers will be more accessible in the city centre. Access to the city centre is more convenient and less expensive than to more remote locations. Whether edge-of-centre development supports this sustainability aim depends on where development would otherwise have been located. Edge-of-centre sites are more accessible than out-of-centre sites but less so than in-centre sites.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓/X	Facilities with larger catchments will be more accessible to a greater number of people if they are in the city centre but those with smaller catchments can be easier to walk to if they are dispersed in centres throughout the city. Whether edge-of-centre development supports this sustainability aim depends on where development would otherwise have been located. Edge-of-centre sites are more accessible than out-of-centre sites but less accessible than in-centre sites.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	X	Dispersed development is less likely than in-centre or edge-of-centre sites to make good use of existing buildings and sites.
10. A quality built environment	0	0	
11. Historic environment protected and enhanced	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓/X	See comments on Aim 7. The extent to which the options succeed in reducing air pollution will depend on their success in reducing the need to travel.
17. Minimal risk to human life and property from flooding	0	0	A – The Core Retail Area is situated within Zone 1 Low Probability and no further development is proposed on the Meadowhall site presenting no further flood risk. B – No likely impact on flood risk
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓✓	X	This aim is best achieved by locating development in existing centres, provided that the infrastructure has capacity to cope with further development.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
Comments on Overall Performance of Different Options The policy will encourage linked trips. Facilities in larger centres are more likely to be accessible by public transport. The rejected option minimises travel distances but unless facilities are within easy walking distance they are more likely than under the policy to involve a car trip to get there, as bus and tram routes generally pass through the larger centres. Whether the policy achieves the sustainability objectives depends on where development would otherwise have been located. Edge-of-centre development is more sustainable than out-of-centre development but less than in-centre development. The merits of each option depend on the type and size of leisure or retail facility proposed, the catchment area it would serve, whether it is accessible by public transport, the number of people visiting it and whether it is likely to promote linked trips.			
Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy By concentrating provision in larger centres some people will not have these facilities close to their homes, so it will be important to ensure that there is good access by sustainable modes of transport from residential areas to District Centres and the City Centre.			

OPTIONS SUMMARY SHEET **Date of Appraisal: 2007**

Issue: Hierarchy of centres: District Centres

Policy SS2 (Formerly Emerging Option S1b,c, S4a,b, S5b (part) and c; preferred options PS3,7) (Similar to Continuing with the UDP)

A The District Centres are:

- Banner Cross
- Broomhill
- Chapeltown
- Chaucer (proposed)
- Crookes
- Crystal Peaks
- Darnall
- Ecclesall Road
- Firth Park
- Heeley
- Hillsborough
- London Road
- Manor Top
- Spital Hill
- Stocksbridge
- Woodhouse
- Woodseats

District Centres will be encouraged in fulfilling their role of providing for everyday needs with a range of retail, leisure and community facilities, appropriate in scale and function to the role of the centre. They may also include concentrations of specific shops or services in response to the market in their particular area. Smaller scale offices and residential development away from shop frontages will complement shops and services.

Centres at Darnall, Spital Hill and Manor Top will be improved and, where possible, expanded. A new centre will be developed at Chaucer.

Rejected Option

B Define a higher level of 'town centre' between the City Centre and District Centres for the larger or more detached District Centres, such as Hillsborough, Crystal Peaks, Stocksbridge and Chapeltown to allow larger scale retail development. (formerly emerging option S5a)

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓	A - A new district centre at Chaucer will encourage jobs nearby. B - Defining a higher level of town centre might impede development needed to sustain and regenerate other smaller centres although jobs will still be provided.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	A new district centre at Chaucer will support and encourage quality housing nearby.
4. Conditions and services which engender good health	✓	0	A new district centre at Chaucer will increase availability of food shops there.
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓	A - Leisure and recreation facilities will be more accessible by a choice of transport if located in district centres – whether large or small.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			B - Defining a higher level of centre for retail and leisure development could have restricted development and opportunities for regeneration in the smaller centres. The policy takes a more flexible approach to development in the smaller centres which will mean greater opportunity for development to occur within rather than outside any district centre.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓	Development in district centres will be more accessible by a choice of means of transport. A - Takes a more flexible approach to development in the smaller centres which will mean greater opportunity for development to occur within rather than outside any district centre.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	✓	Improvements to town centre sites and buildings will have greater benefits to the community (increasing centres' vitality, greater sense of place etc) than will improvements to out of centre sites and buildings. The policy takes a more flexible approach to development in the smaller centres, which will mean greater opportunity for

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			development to occur within rather than outside district centres.
10. A quality built environment	✓✓	✓	New developments in town centres can improve the quality of the townscape. This will provide the community with greater benefits than would development elsewhere. The policy takes a more flexible approach to development in the smaller centres which will mean greater opportunity for development to occur within rather than outside district centres.
12. Historic environment protected and enhanced	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	
13. Soil resources conserved	0	0	
14. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓	Development in district centres will be more accessible by a choice of means of transport. B - Having some higher level District Centres, this would still

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			be the case, but it could mean that other District Centres will become less popular and therefore mean increased journeys to other places.
17. Minimal risk to human life and property from flooding	✓/X	✓/X	The Banner Cross, Broomhill, Chaucer, Crookes, Crystal Peaks, Darnall, Firth Park, Manor Top, Woodhouse and Woodseats centres are situated within Zone 1 Low Probability. However, Chapeltown, Ecclesall Road, Heeley, Hillsborough, London Road, Spital Hill and Stocksbridge are partially situated in Zone 3a High Probability. Any development in Zone 3a High Probability may further increase flood risk. However, the proposed Class Uses are considered Less Vulnerable.
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓	✓	This aim is best achieved by locating development in existing centres, provided that the infrastructure has capacity to cope with further development.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	

Comments on Overall Performance of Different Options

The options have similar objectives which can be considered sustainable - to minimise travel and maximise accessibility to shops. These centres are well distributed throughout the city. They are well served by public transport and near where people live. They are places where people can do everyday shopping. They usually comprise groups of shops with at least one supermarket and a range of non-retail services, such as banks, building societies and restaurants, as well as local public facilities such as a library.

The key differentiation is that the rejected Option B would not have allowed large-scale retail or leisure development in the smaller district centres. The policy takes a more flexible approach to development in the smaller centres, which will mean greater opportunity for retail and leisure development to occur within rather than outside any district centre. Retail and leisure development in the smaller centres can help regenerate areas.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

There are no negative effects of the policy

OPTIONS SUMMARY SHEET **Date of Appraisal: July 2007**

Issue: Neighbourhood Centres

Policy SS3 (Formerly emerging option S1a; preferred options PS3 and 7) (Similar to continuing with the UDP

A New development for local shops and community facilities to serve the everyday needs of the community will be encouraged in Neighbourhood Centres. The facilities of the most viable Neighbourhood Centres in Housing Market Renewal areas will be improved and strengthened and their environments improved.

Rejected Option

B Allow dispersed development of neighbourhood facilities.

Sustainability Objective	Policy	Rejected Option	Comments
	A	**B**	
1. A strong economy with good job opportunities available to the whole community	✓	0	Shops and community facilities in neighbourhood centres will support the local economy and provide jobs.
2. Education and training opportunities which build the skills and capacity of the population	✓	0	Shops will provide training opportunities in neighbourhood centres.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	

	Policy	Rejected Option	
4. Conditions and services which engender good health	✓	0	Food shops and community facilities within walking distance will help engender good health.
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	X	Locating shops and community facilities within walking distance of residential areas will minimise need to travel. B – would not encourage linked trips.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	
10. A quality built environment	0	0	
11. Historic environment protected and enhanced	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	
14. Soil resources conserved	0	0	

	Policy	Rejected Option	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	X	See comments on Aim 7
17. Minimal risk to human life and property from flooding	✓/X	✓/X	Depends on location of new shops.
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	0	0	

Comments on Overall Performance of Different Options

Neighbourhood centres are well distributed throughout the City. Supporting them will support sustainability aims because development there will minimise travel and maximise accessibility to shops. Neighbourhood centres are generally well served by public transport and near where people live.

In comparison, allowing dispersed development would not allow linked trips and is likely to encourage people to rely on car travel to access local shops and services.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

There are no negative effects of the policy.

OPTIONS SUMMARY SHEET **Date of Appraisal: July 2007**

Issue: Location for large leisure and cultural developments

Policy SS4 (formerly emerging options S3a and S3b; preferred option PS4)

A Development of leisure and cultural facilities that serve the City and wider region will be located in, or at the edge of, the City Centre where possible. Major leisure facilities will be located in the Lower Don Valley if no sites are suitable or available in the City Centre or at its edge. Leisure facilities could also be located at Parkwood Springs if they are needed to support the development of sport and recreation facilities there. Leisure development serving smaller catchments, such as the north or south of Sheffield, will be located in the Upper Don Valley and Queens Road if no sites are available or suitable in existing centres.

Rejected Option

B Have no policy on the location of leisure and cultural developments**.**

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓✓	0	Leisure facilities can provide jobs and the City Centre, Don Valley and, to a lesser extent, Queens Road are accessible by public transport. Strengthening the economy of the city centre will support the economy of the whole city and sub region.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
2. Education and training opportunities which build the skills and capacity of the population	✓✓	0	Leisure facilities in accessible locations can provide training opportunities.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	✓✓	0	Attendance at active leisure facilities can engender good health. Locating these in areas that are accessible for large numbers of people will help improve this.
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓/X	A - Leisure facilities in the specified locations will be accessible by a choice of transport. B – Would depend on location of specific leisure development, however, dispersal is likely to reduce accessibility
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓/X	See comments on Aim 6
8. An efficient transport network which maximises access and minimises detrimental impacts	0	X	B – Dispersal likely to lead to increased journeys, and less likely to be clustered to make best use of public transport accessibility.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	0	The option supports the existing cultural facilities in the City Centre – City Hall, Crucible, and Lyceum etc. Locating new cultural facilities in the City Centre will support and enhance its existing facilities.
10. A quality built environment	0	0	
11. Historic environment protected and enhanced	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	
15. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓/X	See comments on Aim 6

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
17. Minimal risk to human life and property from flooding	✓/X	✓/X	A - A large proportion of the City Centre and Lower Don Valley is situated within Zone 3a High Probability. Future development should ensure that there is no increase in local runoff, however the proposed Class Use is considered Less Vulnerable. B – would depend on location
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓✓	0	Locating facilities where they are accessible by public transport maximises use of public transport infrastructure.

Comments on Overall Performance of Different Options

The City Centre, Don Valley and, to a lesser extent, Queens Road are accessible by public transport. Development here, and particularly in the city centre, would be consistent with sustainability aims associated with reducing the need to travel and increasing people's access to facilities. Development in the city centre is also more likely to support its revitalisation as an economic driver for the sub-region and therefore be consistent with sustainability aims relating to achieving a strong and sustainable economy.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

There are no negative effects of this policy.

HOUSING

OPTIONS SUMMARY SHEET

Issue: Scale of the Requirement for New Housing

Policy SH1

The level of housing growth proposed for Sheffield is determined by the Regional Spatial Strategy, which has itself been subject to sustainability appraisal. Determining how this requirement should be met was considered through options for SH2 below. No separate sustainability appraisal was therefore carried out for Policy SH1, as there were no alternative options to appraise.

OPTIONS SUMMARY SHEET **Date of Appraisal:** 15 November 2005

Issue: Locations for New Housing and Maintaining a Supply of Land

Policy SH2 (formerly Emerging Options H1a (part); H1b (part); H1c (part); preferred option PH1)

A. Medium and larger-scale new housing development will be concentrated in the existing urban areas. In the period to 2020/21, the scale and location of new housing will be as follows:

City Centre (around 10,600 homes), Lower Don Valley (around 600 homes), Upper Don Valley (around 600 homes), North-East Urban Area (around 2,800 homes), South-East Urban Area (around 5,300 homes), South and West and areas neighbouring the Sheaf Valley (around 5,200 homes), Mosborough/Woodhouse (around 1,900 homes), Chapeltown/ Ecclesfield (around 500 homes), Stockbridge/Deepcar (around 900 homes), Rural Settlements (around 200 homes).

After 2020/21, and before then as opportunities arise, additional housing growth will occur in transition areas in: the Lower Don Valley (around 1,200 homes), areas neighbouring the Sheaf Valley (around 200 homes), North-East Urban Area (around 700 homes), Stockbridge/Deepcar (around 700 homes).

Throughout the period 2004/05 to 2025/26, other smaller-scale windfall housing development will take place in all the urban areas and in the larger villages of Oughtibridge, Worrall and Wharncliffe Side.

Rejected Options:

B. Continue with allocations in existing UDP and rely on windfalls to provide more housing sites (formerly included option H1a (part))

C. Build at higher densities (>50 dwellings per hectare) on all sites (formerly option H1c (part))

D. Allowing major new house building to take place on vacant or underused industrial or commercial land within the urban areas at:

- Lower Don Valley near Meadowhall

- Neepsend the north of Neepend Lane (in the Upper Don Valley)
- Claywheels Lane in the Upper Don Valley
- Parkwood Springs near the Ski Village
- Ecclesfield

(formerly option H1b (part))

E. Sheffield meets all its housing needs within the district boundary. Pursue a major growth option which includes significant new greenfield allocations around the edge of settlements (i.e. delete land from the Green Belt), as well as retaining existing allocated greenfield sites (formerly Option H1a in Emerging Options Appraisal)

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
1. A strong economy with good job opportunities available to the whole community	✓	X	XX	XX	✓/X	A – Helps with redevelopment of derelict former industrial areas, thereby improving image of city. May not provide all housing needed to meet growth arising from economic regeneration but additional needs can be accommodated in adjoining districts (supports economy of City Region). Safeguards employment land in key locations. B – Could be insufficient land provided to meet additional housing needs. Would have to rely largely on windfall sites. Uncertain market conditions. C – Could significantly increase congestion in urban areas - potentially detrimental to economy. Could also result in too many small dwellings meaning a poorer match with housing demand

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						D – Would result in significant loss of land needed for employment uses. E – Housing would be provided to meet all needs arising from improved economic performance. Easier for economic migrants to move to city. However risks that, in the short to medium term, inner city housing areas would not be developed as a priority with greenfield options being more attractive to developers – this could lead to further decline, harming image of city.
2. Education and training opportunities which build the skills and capacity of the population	✓/X	✓/X	✓/X	✓/X	✓/X	Depends on location of new housing development. Significant development in some areas could exceed capacity of local schools.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	X	XX	X	✓	A – Provides sufficient land to meet housing requirement, including replacement housing for unfit housing that has been demolished. Replacement housing in the HMR area will improve the range and quality of housing available in that area. However, some new housing would have to be provided in adjoining districts to meet overall needs. B – Would limit availability of new housing within the district. More housing would have to be provided in adjoining districts. New housing less likely to be brought forward in areas where it could significantly improve the housing offer. C – Risk of town cramming and too many small dwellings. Lack of family sized accommodation.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						D – Many of these locations are remote from existing urban areas and, in some cases, would result in housing being surrounded by bad neighbour uses E – Would provide more good quality housing but could also exacerbate problems of low demand leading to decline of some existing housing areas. However, this could be overcome by giving priority to renewal areas and phasing greenfield development.
4. Conditions and services which engender good health	✓✓	0	0	X	✓	A – Supports renewal of poor housing, one of the major contributors to poor health. D – New housing in commercial areas would potentially lead to health problems due to poor environment. E – A phasing policy could give priority to renewal of poor housing.
5. Safety and security for people and property	0	0	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	X	0	X	X	A – Urban focus means that people are more likely to live close to cultural and leisure facilities. B - involve significant new development on edge of city where access to facilities will generally be poorer. Impact could be mitigated by phasing development so that new facilities are provided to serve the new housing. C – Risk of exceeding capacity of leisure facilities? D – Depends on precise location but some of these areas are relatively poorly served by open space and leisure

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						facilities. E – Involve significant new development on edge of city where access to facilities will generally be poorer. Impact could be mitigated by phasing development so that new facilities are provided to serve the new housing.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	X	✓✓	✓	✓	A – Urban focus means greater potential to use sustainable modes. Also, people live nearer to jobs and services. However, some housing needs would be have to be met elsewhere which could lead to more commuting from adjoining districts. B – Likely to lead to significant commuting from adjoining districts to work. Also likely to lead to greater proportion of development in less accessible areas. C - More of population concentrated in urban area – close to local facilities and in areas well served by public transport. D - Would allow more housing to be concentrated in urban areas where sustainable transport options are more likely to be available. E – Major growth likely on edge of city, including in areas where people would be highly car dependent, however more of Sheffield's housing needs met within the district leading to less commuting. Could focus development in public transport corridors though, in practice, the scope for this may be limited.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	X	X	✓	✓/X	Impact depends to a large extent on location of individual sites but: A/D – Urban concentration helps to maintain viability of public transport services, although could lead to more congestion if alternatives are not attractive enough. B – Would lead to development of remaining allocated greenfield sites on edge of city – could mean new public transport services would be needed, although it will vary from site to site. C – Likely to significantly increase traffic congestion in urban areas. Would support viability of public transport on some routes but risk of exceeding public transport capacity on other routes. E – Market would not necessarily build new housing where it would make efficient use of the transport network. Major risk of increasing congestion. Likely to lead to major house building on edge of city - more likely to require new public transport services though may lead to less congestion in existing residential areas.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	X	✓✓	✓✓	XX	A/C/D- Make good use of previously developed sites B – Market would develop greenfield sites first (although remaining supply of greenfield sites in UDP is fairly limited). This could be off set by a phasing policy, however. E - Market would concentrate of greenfield sites which are

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						easier to develop. Could be disincentive to development of previously developed land.
10. A quality built environment	✓✓	✓/X	XX	✓	X	Impact of all options depends to some extent on design but: A – Focus on redevelopment in Housing Market Renewal Areas is likely to result in higher quality design as there will be a high standard required on sites disposed of through the developer panel. A/D – Focus on existing urban areas should mean that more vacant buildings are reused. B – Would depend on location and design of windfall developments. C – Likely to lead to major decline in quality of inner urban areas with high density housing not being in keeping with character of many suburban areas. D – Housing development in former commercial areas likely to enhance townscape character in those locations. E – Market likely to focus on greenfield sites meaning derelict previously developed sites in urban areas remain undeveloped. Likely to be disincentive to build in inner urban areas where townscape could be improved by new development. Phasing of development could, however, require focus on inner urban areas before greenfield sites.
11. Historic environment protected and enhanced	✓	✓	XX	✓	✓	A/D – Focus on reuse of previously developed sites likely to support reuse of historic buildings.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						B – Windfalls in urban area likely to support reuse of historic buildings. C – Likely to harm character of lower density residential areas. Could potentially significantly harm historic areas and the settings of listed buildings. E – Would do little to promote reuse of historic buildings. Market likely to focus on greenfield sites, although development could be phased to give priority to reuse of previously developed land, thereby encouraging reuse of historic buildings.
12. Quality of natural landscapes maintained and enhanced	✓✓	XX	✓✓	✓✓	XX	A/C/D – Little encroachment of house building into countryside. B/E– Would both lead to significant encroachment into open countryside, although only a limited number of allocated greenfield housing sites remain in the UDP. Impacts could be mitigated by effective landscaping but still likely to be severe.
13. Wildlife and important geological sites conserved and enhanced	✓	XX	✓	✓	XX	Depends on character of individual sites but less likely to be a significant factor for previously developed sites. A/C/D – Unlikely to cause major harm to wildlife sites as focus on previously developed land. B – Some of remaining allocated greenfield sites have wildlife value. E – Would lead to major greenfield development many of which would have wildlife value

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
14. Soil resources conserved	✓✓	XX	✓✓	✓✓	XX	A/C/D– Limited greenfield development, so limited harm to soil resources. Reclamation of contaminated previously developed sites would be a significant benefit. B/E – Both involve greenfield development, though option B would have less of an impact as windfalls only likely to be acceptable on previously developed sites.
15. Water resources protected and enhanced	✓/X	X	✓/X	✓/X	X	Depends on location of individual sites and detailed design. However, major development of greenfield sites (options B/E likely to have a negative impact overall).
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	X	✓/X	✓/X	X	A – Focusing much development in the HMR area is likely to help provide a managed response to the effects of climate change, as sites disposed of through the developer panel will have higher than average eco-homes requirements and encourage the use of renewable energy. A/C/D - Urban concentration options likely to result in higher use of public transport/walking and cycling. However, increased traffic congestion could lead to more local air pollution problems. B/E - Greenfield sites on the edge of the city are likely to be less well served by public transport (but there may be exceptions). However, also possible that major house building could reduce commuting to Sheffield from surrounding districts (more of population living closer to jobs).

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
17. Minimal risk to human life and property from flooding	✓/X	✓/X	✓/X	✓/X	✓/X	Generally, the preferred locations for new housing are likely to have a low risk from flooding but performance depends on the location of individual sites. Sites will be appraised individually with reference to the Strategic Flood Risk Assessment. Sites in the Lower Don Valley, Upper Sheaf Valley and parts of the City Centre are likely to be most at risk.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	
20. Efficient use of physical infrastructure	✓	X	✓	✓/X	X	Depends on location of individual sites. However, generally, focus on existing urban areas (A/C/D) will mean that less new infrastructure is needed so policy likely to perform better than other options overall. D – Likely to be existing infrastructure in previously developed areas, but some alterations might be necessary to enable residential development. B / E – More development on greenfield land where there is unlikely to be existing infrastructure, or capacity might need to be increased.

Comments on Overall Performance of Different Options

The key sustainability objectives in relation to these options are sustainable travel patterns, transport accessibility, efficient use of land (especially previously developed sites), provision of decent housing and flood risk. It has generally been assumed that housing development within the existing urban areas (policy A) will be more sustainable than development outside the urban areas because housing in the urban areas will, in most cases, be closer to local facilities and public transport than development on the edge of the urban areas or in rural areas. The precise impacts will, however, vary from site to site. Focusing house building on areas where housing has been cleared scores strongly against many of the objectives and has been given considerable weight.

Rejection of some of the locations under emerging option D reflects the fact that considerable weight has been given to safeguarding sufficient land for employment purposes. Allocating additional land in the locations listed under option D would potentially result in an over allocation of housing land. These options highlight one of the major questions for the Regional Spatial Strategy – the balance between land for employment and land for housing and how far Sheffield should seek to meet all its own housing needs, or accept some commuting from adjoining districts. Option A implies there would be some increase in commuting from other districts but the use of brownfield sites in adjoining districts is considered preferable to greenfield development in Sheffield. It is apparent from the appraisal that greenfield development (options B and E) has potential negative impacts on many of the environmental objectives (especially wildlife, landscape, soils, water resources).

Flood risk could be a problem in some of the locations listed in Policy A (in particular, some areas of the City Centre, the Upper Sheaf Valley and the Lower Don Valley. The sustainability appraisal of the City Sites document will need to assess this carefully on a site-by-site basis, using the results of the Strategic Flood Risk Assessment. However, given that these flood risk areas are in the heart of the existing urban area it may, in any case, be necessary to provide improved flood protection measures to safeguard existing land uses.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

The policy means that some of Sheffield's housing need will be met in neighbouring local authorities. Where this could potentially lead to more people having to commute into Sheffield for employment, then measures should be put in place to encourage commuting by public transport or use of park and ride facilities to reduce congestion and environmental impact. More generally, ensuring high quality public transport access to locations for new housing development will enable more sustainable travel patterns and make locations more suitable for housing development. Giving priority to previously developed sites rather than greenfield sites will also improve performance.

Flood risk for specific sites in the preferred locations requires further investigation as part of the sustainability appraisal of the City Sites document

Design of new housing will be very important in terms of how new development impacts on the existing built environment. Urban concentration will lead to more development within existing areas where there might be character considerations.

OPTIONS SUMMARY SHEET **Date of Appraisal:** 1 December 2005

Issue: Maximising the use of previously developed land for new housing

Policy SH3 (formerly Emerging Options H2b; H2c (partly); H2d; preferred option PH2)

A. Priority will be given to the development of previously developed sites and no more than 10% of dwellings granted permission will be on greenfield sites in any five-year period between 2004/05 and 2025/26.

In the period to 2025/26, housing on greenfield sites will be developed only:

- at Owlthorpe;
- in the Housing Market Renewal Area and other housing renewal areas where it is essential for the effective regeneration of the area and adequate open space would be retained to meet local needs; and
- exceptionally, on small sites within the existing urban areas and larger villages, where it can be justified on sustainability grounds.

Rejected Options

B. No housing development on any greenfield sites, regardless of the value of the open space and the provision of open space in the local area (formerly emerging option H2a)

C. Retain existing UDP – development on greenfield sites considered against open space/Green Belt policies, plus development on UDP allocated greenfield sites

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	0	0	0	
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	X	X	A - Facilitates renewal of unfit or low demand housing and enables estate redevelopment which will improve the housing offer. Could help to provide small sites for affordable housing. B/C - Potentially hinders renewal of unfit/low demand housing by being too inflexible to allow for land swaps or estate layout alteration.
4. Conditions and services which engender good health	✓	✓	✓	A/B/C - Open space generally beneficial for mental well-being/ exercise – all options protect valuable open space but policy provides more scope to reinvest money from development to create/improve public open space.
5. Safety and security for people and property	✓✓	XX	0	A – Reconfiguration of estates in HMR area could improve security for residents. B – Likely to limit opportunities to improve the safety of open spaces in some areas.
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓✓	✓✓	A – No negative impact provided that adequate alternative public open space is available. Development at Owlthorpe has potential recreational benefits as S106 money from the housing development could fund completion of the public open space network. B – Safeguards all recreational open space, although it may limit

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				scope to improve poor quality open space. C – Current plan safeguards recreational open space.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	X	X	A– Makes more efficient use of urban land – urban sites more likely to be close to local facilities thereby increasing opportunities for walking/ cycling. Owlthorpe sites are relatively close to the Supertram network but are more than easy walking distance from local shops. Provision of a local convenience store as part of the development would improve sustainability. B – Potentially wasteful in terms of use of urban land as unused sites would be left undeveloped. Protection of greenfield sites within the urban area is likely to increase pressure for development on less accessible sites outside the urban area. C – Would mean more greenfield development on the edge of the city on sites less well served by public transport. However, impact could be mitigated by new services.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	✓	X	A – Concentrates majority of development on previously developed land, which is likely to be in the urban area, and some greenfield sites in the main urban area. Generally this will make efficient use of the public transport network and improve viability of services. Greenfield sites at Owlthorpe enable efficient use of existing Supertram services. C – More development on edge of city means it is less likely to support viability of public transport.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	✓✓	✓	A – Very limited greenfield development. The limited greenfield development that is permitted would be unlikely to divert development away from previously developed sites

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				B – Would maximise use of previously developed land but some unused low quality greenfield sites in the urban area would remain disused. C – No emphasis in current UDP to concentrate on previously developed land though this is a requirement of PPG3.
10. A quality built environment	✓✓	0	0	A – Facilitates replacement of poor housing of low visual quality or unsustainable design by enabling estate reconfiguration by allowing limited greenfield development as part of housing market renewal.
11. Historic environment protected and enhanced	0	0	0	
12. Quality of natural landscapes maintained and enhanced	✓	✓✓	XX	A – Concentration of development on previously developed land with some limited greenfield development within urban areas will have a positive impact on protecting natural landscapes. However, development at Owlthorpe would result in visual intrusion into open countryside, although effective landscaping could mitigate this. B – Prevents any intrusion into open countryside. C – Development of all allocated greenfield sites would lead to significant intrusion into countryside.
13. Wildlife and important geological sites conserved and enhanced	X	✓/X	XX	A - Could have minor negative impact on certain sites but this could be off-set by habitat creation/better management of remaining areas. B – Some previously developed may be of higher ecological value than many greenfield sites. C – Some of the allocated greenfield sites have wildlife value.
14. Soil resources conserved	✓✓	✓✓	X	A - Concentrates majority of development on previously developed sites. Would involve some loss of soil resources on any greenfield

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				sites developed but overall impact likely to be insignificant. Likely to lead to reclamation of contaminated sites. B – Safeguards soils and means all development has to be on previously developed sites which is likely to lead to reclamation of many contaminated sites. C – Generally prevents development on greenfield sites but UDP still contains some significant greenfield sites; development of these would have a negative impact on soil quality.
15. Water resources protected and enhanced	✓	✓	X	A/B – Both strictly limit greenfield development so impact on the whole is positive. C – Generally prevents development on greenfield sites but UDP still contains some significant greenfield sites; development of these likely to have some impact on run-off and ground water.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	✓	A/B – Both options limit the scope for urban expansion meaning that more development is located in urban areas where there is more potential to use less polluting modes of transport, although higher populations in urban areas could lead to greater congestion. C – Some expansion of urban areas in areas less well served by public transport but could have local air quality benefits by dispersing congestion.
17. Minimal risk to human life and property from flooding	✓✓	✓✓	X	A/B - Both options generally protect undeveloped land which means no loss of flood water storage areas. C – Greenfield development could impact on flood storage areas and increase run-off.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
18. Prudent and efficient use of energy and mineral resources	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	
20. Efficient use of physical infrastructure	✓	✓	✓/X	A – Impact depends, to some extent, on particular site. At Owlthorpe, main justification for development on these sites is to make more efficient use of existing infrastructure or to secure delivery of additional infrastructure needed to support housing that has already been built. Infrastructure more likely to be in place already within the main urban area where most development will take place. B – All development on previously developed land which will generally already have existing services and infrastructure. C – Expansion onto greenfield sites likely to mean new infrastructure is needed.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	

Comments on Overall Performance of Different Options

These options are primarily about efficient use of land which makes good use of previously developed sites and buildings. The policy scores very well because it gives priority to previously developed sites. It clearly needs to be read in conjunction with Policy PH1, which seeks to make maximum use of the available previously developed sites within the urban areas. Use of previously developed land scores particularly well against many of the environmental objectives (protection of wildlife, landscape, soil, water resources), although it should be noted that some previously developed sites will have significant ecological value.

The key concern would be that the policy does allow a small amount of greenfield development and therefore could have some negative environmental impacts. However, by allowing some greenfield development in the HMR area, the Policy scores strongly in relation to the decent housing objective (by facilitating housing renewal) and the objective relating to safety and security (by improving estate layouts). At Owlthorpe, greater weight has been given to the objectives relating to access to open space, local facilities and public transport than to the impacts on landscape and wildlife (which are judged to be relatively insignificant). Rejected option B, which proposed no greenfield development, scores well against the environmental objectives, but poorly in relation to social objectives. The rejected option which proposes allowing development on all UDP allocated greenfield sites scores poorly as not only is this less environmentally sound, but many of those sites are in less accessible locations. Although a higher proportion of development could be accommodated on previously developed sites by using sites in the Green Belt, such sites would score poorly in terms of access to local facilities and public transport.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy It will be essential to assess the ecological value of proposed development sites as part of the sustainability appraisal of the City Sites document. Any potential negative impacts of the policy could be mitigated by ensuing that, in the HMR area, any greenfield sites that are developed are not of recreational or ecological value, or that they are replaced.				

OPTIONS SUMMARY SHEET **Date of Appraisal: 14th December 2005**

Issue: Priorities for releasing land for new housing

Policy SH4 (formerly Emerging Options H3b, H3c, H3d (part) and H3e; preferred option PH3)

A. The priority locations for new housing development are:

(a) housing renewal areas in the Housing Market Renewal Pathfinder area and;
(b) other housing renewal areas and;
(c) the City Centre (but only where it would involve mixed-use development that would support economic regeneration).

Sites in priority locations that are free of development constraints will be included in Phase 1 (up to, and including, 2015/16). Sites outside the priority locations will be included in Phase 2 unless:

(i) there would be insufficient sites in the priority locations to meet the gross housing requirement; or
(ii) there are overriding sustainability benefits associated with bringing forward a site earlier.

If there are insufficient sites in the priority locations to meet the gross housing requirement, the most sustainable sites that are free of development constraints in other locations, will be included in Phase 1.

Phase 2 sites may be released before 2016/17 if the development would not prejudice targets for the Housing Market Renewal Area.

Rejected Options:

B. Allow the market to determine the release of previously developed sites for new housing within the urban areas (formerly option H3a in the Emerging Options)

C. Give priority to the early release of housing sites on vacant land formerly used for industry or other non-housing uses in the Lower Don Valley (sites outside the HMR Masterplan areas); at the Neepsend 'gateway' around Rutland Road (in the Upper Don Valley); in the Sheaf Valley at Archer Road/ Abbeydale Road; Stocksbridge (formerly part of emerging option H3d)

D. Retain existing UDP – development decided on an ad hoc basis according to sustainability criteria

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
1. A strong economy with good job opportunities available to the whole community	✓	✓	X	✓/ X	A – Will provide quality new housing in a range of locations which will support population growth as a result of improved economy and enable retention of population through 'aspirational' market housing. Also important as housing likely to be available at an affordable price for people working in lower paid jobs. City Centre housing also supports economic growth objectives by providing housing for younger, professional people moving to the city. There is some risk, however, that focusing development on the lower demand areas, could lead to overall under-supply (but triggers to release land in other areas could be included to minimise this risk) B - More likely to deliver executive housing, which could make Sheffield a more attractive proposition for business investors. C - Sites may be costly to develop and this may hinder house building, thereby holding back economic growth. D – Would depend on the type and location of housing developed.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	A – There may be some positive impact on training opportunities as a result of prioritising development in the HMR area. Developers of Council owned sites will be encouraged to use local labour and develop training.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	X	✓/ X	✓/ X	A - Likely to provide a balanced housing choice, including meeting the needs of vulnerable people and people in need of affordable housing. Redevelopment of Housing Market Renewal Areas will improve the city's housing offer. Housing in the City Centre likely to be particularly suitable for smaller households. B - Market unlikely to meet needs of most vulnerable groups or people in need of affordable housing. C - Depends on type of housing being built. D – By relying on site-by-site decisions on windfall sites a variety of new housing would be developed, however it might not meet needs effectively or be developed in the most useful areas.
4. Conditions and services which engender good health	✓	0	X	0	A - Replacement of poor quality housing is crucial in improving health, this will be targeted at areas where housing is being redeveloped. Provision of suitable housing for vulnerable groups should also improve health. C – There may be some negative impacts on health as a result of developing new housing in areas which are still partially used for industry.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
5. Safety and security for people and property	✓	0	0	0	A - Redevelopment of poor housing in HMR and other housing renewal areas likely to reduce crime. Prioritising development of housing for people with extra care needs would provide housing security for those people. Providing more housing in the City Centre increases the population and leads to more active streets which can reduce the incidence of crime.
6. Good cultural, leisure and recreation facilities available to all	✓	✓	✓	✓/ X	A/B/C – Focuses development on urban areas where access to leisure and recreational facilities is likely to be high. D - Depends on location of specific site.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓	✓	✓	A – Focusing housing development in existing residential areas in the HMR area and within the City Centre will enable people to access sustainable transport modes more easily. It is also more likely that essential services will be available to people within walking distance of their houses. B/C – Impact will depend on whether the site is close to services and public transport routes – however, within the main urban areas most sites will be in locations which minimise the need to travel or are accessible by sustainable transport modes. D – Depends on location of site. However deciding on development based on sustainability criteria should ensure that most sites are in locations where the need to travel is minimised or where there is good access to public transport.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	✓	✓	✓/ X	A – Focussing development in existing residential areas and the city centre should allow more efficient use of the public transport network and could improve the viability of some services in the HMR area. B/C – Allowing the market to determine the release of housing within urban areas or prioritising sites on previous employment land in the urban areas could improve viability of public transport services in those areas. D – Would depend on site location, however decisions made based on sustainability criteria should ensure development which makes efficient use of the transport network.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	✓/ X	✓✓	✓/ X	A - Gives priority to development of previously developed sites rather than greenfield sites as much of the land used will be redevelopment of former housing or industrial areas. B – Depends on location of development. C - Gives priority to development of previously developed sites rather than greenfield sites. D - Depends on whether particular site is greenfield or previously developed land, however permission significantly more likely for previously developed sites.
10. A quality built environment	✓✓	X	✓✓	✓/	A – Most likely to involve development on previously developed land, with improved townscape likely on redevelopment sites in the HMR area and where industrial uses are being replaced by housing in the

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
				X	city centre. B - if market is left to decide, sites which are easiest to develop are likely to be developed first, meaning that the most despoiled sites may be left undeveloped longer. C – Housing development on vacant or underused industrial land likely to significantly improve townscape. D – Depends on site location and design of development.
11. Historic environment protected and enhanced	0	0	0	0	
12. Quality of natural landscapes maintained and enhanced	✓	0	✓	0	A/C – By concentrating development on what will mainly be previously developed sites within the urban areas, natural landscapes surrounding the city are more likely to be protected from development.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	
14. Soil resources conserved	✓✓	✓	✓✓	✓/ X	A/C – Both likely to give priority to development of previously developed sites rather than greenfield sites. B – Depends on specific sites, however, allowing the market to determine release of land within the urban areas is more likely to result in development of previously developed land which wouldn't deplete soil resources on greenfield sites.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
15. Water resources protected and enhanced	✓/ X	✓/ X	✓/ X	✓/ X	Impact depends on location of specific sites. Need to consider cumulative effects of development in certain priority areas.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓/ X	✓	✓/ X	A – Focusing development on existing residential areas and the City Centre will minimise greenhouse gas emissions from trips as journeys are more likely to be able to be made on foot or by sustainable transport modes. B – Would depend on location of sites and accessibility. C – Housing is generally a less polluting use than industry, so replacement of former industrial uses with housing is likely to improve air quality (or at least not make it worse). D – Would depend on site location, however by assessing developments according to sustainability criteria, most developments would be in locations where reduced car use would be a possibility.
17. Minimal risk to human life and property from flooding	✓/ X	✓/ X	✓/ X	✓/ X	Impact depends on location of specific sites. A - Cumulative impact of sites in areas where there is priority for housing need to be considered through the SFRA. Some parts of the City Centre and Lower Don Valley in the HMR area might be more susceptible to flooding.
18. Prudent and efficient use of energy and mineral resources	✓	0	0	0	A – Prioritising much housing development in the HMR area is likely to have a positive impact on the use of energy and resources. Sites released to the Developer Panel will be required to use sustainable design principles such as incorporating renewable energy, using

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
					sustainable materials in construction and adhering to standards such as BRE Ecohomes which encourages greater energy efficiency. B/C/D – Would depend on specification of development. Less impetus to use sustainable construction or design outside HMR areas.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	
20. Efficient use of physical infrastructure	✓	✓/ X	✓	✓/ X	Impact depends on location of specific sites. Need to consider cumulative effects of development if certain areas are given priority for release. A – Prioritising release of housing land in HMR areas will benefit from existing infrastructure already provided in established residential areas. C – Industrial areas already likely to have infrastructure in place – housing would be able to utilise this.

Comments on Overall Performance of Different Options

In selecting the Policy, significant weight has been given to the sustainability objective of providing decent housing for everyone. Support for housing renewal in the HMR Pathfinder area (a key Government initiative) has therefore been a major consideration, although the Policy would provide land in other areas as well. It has clear benefits in terms of creating a more equitable, inclusive housing market. Provision of housing in the City Centre scores well against the objectives relating to economic growth, sustainable travel and efficient use of land. The main risk is that focusing development on the lower demand areas could lead to overall under-supply of new housing which could impact on economic growth.

Many of the environmental impacts depend on the location of the specific site but A and C are both likely to give priority to previously developed sites, so score more strongly than the options which do not rule out a degree of greenfield development.

Concentrating new housing in certain priority areas may have a cumulative impact on infrastructure, but this depends on specific locations and more information would be needed to assess this. Concentration of development in areas such as the Lower Don Valley and City Centre where they may be a flood risk could prevent the policy from being fully implemented.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Further assessments may be needed about how much development should be allowed outside the Housing Market Renewal areas in order to provide market choice and support economic development. Housing supply will need to be monitored and triggers should be included (in the City Policies document) to release additional land outside the priority areas if there is a risk of under-supply of housing.

Sites need to be assessed within priority locations for flood risk (as part of the sustainability appraisal of the City Sites document). This will need to take account of the results of the Strategic Flood Risk Assessment and attenuation measures such as improved drainage may be required.

OPTIONS SUMMARY SHEET **Date of Appraisal:** 14th December 2005

Issue: Efficient Use of Housing Land and Accessibility

Policy SH5 (formerly Emerging Options H4a, H4b, H4c, H4d)

A Housing development will be required to make efficient use of land but the density of new developments should be in keeping with the character of the area and support the development of sustainable, balanced communities.

Subject to the character of the area being protected, densities will vary according to the accessibility of locations, with the highest densities in the City Centre and the lowest in rural areas. Density ranges for new housing will vary, in decreasing order of intensity, according to whether a site is:

(a) within or near to the City Centre;
(b) within or near to Meadowhall or a District Centre;
(c) near to Supertram stops and high frequency bus routes in the urban areas
(d) in remaining parts of the urban area
(e) in rural areas.

Rejected Options

B. Allow high density development (>50 dwellings/ hectare) in all areas regardless of accessibility by public transport (formerly Emerging Option H4e)

C. Continue with UDP. Higher density housing permitted in sustainable locations, but no specific requirements for higher densities in certain locations. Decisions made on a site-by-site basis so some higher density development allowed in less sustainable locations or where character might be affected.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓	0	0	A - Higher density housing can help to create a vibrant City Centre and is likely to play a role in subsidising development of office schemes which contribute to the City Centre economy. Smaller dwellings in the City Centre will also meet demand from younger professional people moving to the city to take up new jobs. Allowing lower densities in some areas will lead to development of larger houses which will also contribute to a successful economy by attracting people working in higher end jobs to come and live in Sheffield.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	There may be some issues in relation to whether local schools have capacity for new housing at higher densities. However, families generally are less likely to live in higher density housing, and issues around over-capacity can be mitigated through financial contributions to education provision by the developer – this may be a cumulative impact
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	X	X	A – Quality of high density housing highly reliant on design, however, not requiring higher density housing in some less accessible areas would encourage a better mix of house types that would meet housing needs for a greater proportion of the population. B – Likely to be considerable focus on smaller units in order to achieve higher densities. Although there could still be development of some different types of unit which would cater for

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				need, this is less likely with a higher density requirement everywhere C – Would depend on what proposals came forward. Likely to have effect of promoting a mix of house types suitable for meeting different needs, however there may be more focus on smaller units in higher density developments to maximise profit.
4. Conditions and services which engender good health	✓/X	✓/X	✓/X	A/B - Greater risk that high-density housing could be detrimental to health due to issues of noise and ventilation. However, well-designed schemes would also be beneficial in terms of improving overall standard of housing. Option A does not require higher density housing in some less accessible areas which avoids potential for over development and an oppressive environment that could have damaging psychological effects, etc C – Depends on what market brings forward
5. Safety and security for people and property	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓	X	✓/X	A - Likely to result in a larger proportion of the population living where there is easy access to leisure facilities, either locally or by making a trip by public transport. B - Could lead to pressure to build on urban green spaces. C – Would depend on location of development.
7. Land use patterns that minimise the need to travel or which promote the use	✓✓	X	✓/X	A - Likely to result in a larger proportion of the population living near jobs, shops and local services, or living close to public

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
of sustainable forms of transport				transport links which increases likelihood of people choosing to use public transport. This would also limit population increases in suburban areas that are less well served by public transport and more likely to use cars, as higher densities wouldn't necessarily be acceptable in these locations. B – Although encouraging higher densities will mean that more people live in accessible locations, it also has a serious risk of higher density housing being developed in areas which have poor public transport accessibility, meaning more people would be likely to make trips by car. C – Would depend on location of development, however there is a risk this could lead to higher levels of development in areas with poor access to public transport, shops and facilities.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	XX	✓/X	A – Maximises opportunities for use of public transport infrastructure. However, need to ensure that capacity of infrastructure would not be exceeded. High-density development could increase traffic congestion. The requirement to take account of character may mean low densities in locations with significant spare public transport capacity. B - Could mean higher density development being allowed in areas where public transport services are relatively poor, not using public transport infrastructure efficiently and placing increased demands on the road network.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				C - Could mean higher density development being allowed in areas where public transport services are relatively poor.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	✓✓	✓/X	A - Higher density development on previously developed sites reduces need for greenfield development, however lower density development away from more accessible areas could potentially bring forward the time at which green field sites are required. B - Maximises efficient use of land C – Would depend on location of development, but would be more likely to lead to high density development on previously developed sites.
10. A quality built environment	✓	XX	X	A – Policy includes safeguards to protect local character. However, impact depends largely on design of higher density housing, and higher densities may lead to concerns about impact on townscape B – High density development regardless of location is more likely to lead to a negative impact on townscape, particularly in areas where the character is typically lower density. C – Depends on the location and design of development but greater risk of development that does not reflect local character.
11. Historic environment protected and enhanced	✓	XX	✓/X	A - Benefits in terms of protecting the character of low density Conservation Areas in suburban areas by requiring higher density housing outside these areas. B – High density housing in any location is likely to have a

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				negative impact on the character of conservation areas and other character areas. C – Depends on the design, location and density of individual developments.
12. Quality of natural landscapes maintained and enhanced	✓✓	✓✓	0	A/B - Higher density development within urban areas likely to reduce the need for development on greenfield sites, particularly those on the edge of the urban area. Overall benefit would be greater for option B than A.
13. Wildlife and important geological sites conserved and enhanced	✓	✓	✓	A/B – Higher density development (within the urban area) likely to reduce the need to build on sites of wildlife of other ecological importance outside the main urban area. C – Developments appraised on a site-by-site basis so likely to provide stronger protection for green spaces within the urban area.
14. Soil resources conserved	✓	✓/X	✓/X	A – Likely to involve reclamation of contaminated land as higher density housing in accessible, urban locations is likely to be on recycled land. B/C – Depends on sites – assumption that most sites developed would be on previously developed land which would conserve greenfield sites and potentially lead to reclamation of contaminated land.
15. Water resources protected and enhanced	0	0	0	
16. Air pollution and greenhouse gas				High-density apartment schemes are more likely to require air-

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
emissions minimised and a managed response to the effects of climate change	✓	X	X	conditioning systems which will increase CO2 emissions. However, overall: A - Likely to encourage greater use of public transport and people living within walking distance of centres, so likely to benefit air pollution by minimising the need to travel by car. Limits the number of people living in suburban areas that are less well served by public transport. B/C – More likely to encourage higher densities in less sustainable locations thus increasing the number of people who are reliant on cars.
17. Minimal risk to human life and property from flooding	X	X	X	A/B/C - High density housing in the City Centre will increase flood risk in an already over-developed area. Precautionary measures, e.g. Green Roofs, should be adopted to reduce risk. High density housing at Meadowhall and District Centres should also be approached with caution, especially where the areas are developed, low-lying areas with high runoff. Housing is considered a More Vulnerable Use Class
18. Prudent and efficient use of energy and mineral resources	✓	✓	✓/X	A/B - Higher density development is more energy efficient in terms of construction and building energy consumption. However, higher density development may require air conditioning which increases energy consumption. C – Would depend on the location, density and design of individual developments.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	
20. Efficient use of physical infrastructure	✓/X	✓/X	✓/X	Depends on capacity of infrastructure in different areas. High density schemes more likely to overload infrastructure.

Comments on Overall Performance of Different Options

For these options, the sustainability objectives relating to provision of decent housing, sustainable travel patterns and quality of the built environment have been given greater weight than the objective of making efficient use of land. The Policy will result in relatively lower densities in some areas and therefore scores strongly on protecting the built environment and historic areas within urban areas. Although this could increase pressure for new housing on greenfield sites outside the existing urban areas if insufficient higher density sites are developed, generally concentrating higher density development in accessible locations should reduce the need to build in areas where there would be negative impacts on the natural environment. Higher density housing in more accessible locations makes the Policy particularly strong in terms of sustainable travel. The rejected option which allows high density everywhere runs risk of a poor mix of house type (predominance of flats) and could also result in a greater proportion of trips by car (due to more housing being located in areas that have poor public transport). Overall, it seems desirable to generally concentrate the highest population densities in areas with the highest public transport accessibility but make protection of local character an overriding consideration.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of Policy

The key to implementing the Policy sustainably will be to ensure high quality design of high density schemes to avoid negative impacts on character and townscape, and to ensure as wide a range of types as possible to broaden housing mix and choice in higher density developments. Higher density development could be introduced in other areas if public transport accessibility was also improved (i.e. extend high frequency network). It will also be necessary to be clear what constitutes a 'high frequency' bus route – there may be an argument that most of the urban areas are served by high frequency routes (when compared to rural areas). Where higher density housing is not acceptable due to character concerns or lack of accessibility, this may lead to more reliance on private transport, which could be mitigated by improvement to public transport in more suburban areas.

OPTIONS SUMMARY SHEET **Date of Appraisal: 14th December 2005**

Issue: Affordable housing

Policy SH6 (formerly Emerging Options H5a, H5b (exceptionally) and H5e)

A. In all parts of the city, developers of all medium and large housing developments will be required to contribute towards the provision of affordable housing.

Rejected Options

B. Require all developers of private market housing to pay a commuted sum to be spent on providing affordable housing anywhere in the city (formerly emerging option H5b)

C. Only require affordable housing as a proportion of private developments in those parts of the city where house prices are very high (mainly the west of the city, outer suburbs and rural areas) (formerly emerging option H5c)

D. In the lower value areas of the city (e.g. the Housing Market Renewal Pathfinder), use the Council's land holdings and partnerships between the Council and Housing Corporation grants to secure affordable housing to meet specific needs, but include no requirement for it to be provided as part of private housing developments (formerly emerging option H5d)

E. Retain UDP approach. Affordable housing can be negotiated where there is a need as part of larger housing developments.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
1. A strong economy with good job						A – Provision of new affordable housing in all locations will

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
opportunities available to the whole community	✓✓	0	✓	0	✓	enable employees to remain in Sheffield, as well as providing affordable housing for those relocating to the area which could improve employers chances of recruitment. There is however, the possibility that in some cases the requirement might jeopardise the economic viability of house building schemes, so it will be important to relax requirements where that is the case. C/E – Requiring some new affordable housing in the most expensive locations would add to housing choice and could therefore help employers recruit employees to Sheffield and retain them.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	✓	✓	✓	✓	A – Would provide affordable housing to a wide range of people in different locations, including the HMR area where new affordable housing is needed to replace existing social housing that is being demolished. It is also more likely to result in mixed communities, as this would require affordable housing on a much larger proportion of housing developments. Provision of affordable housing makes more impact on this objective than provision of housing generally, as it improves the range and quality of housing available to vulnerable people and disadvantaged groups.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						B/C/D/E - Would increase the provision of affordable housing but be more limited in terms of the amount and locations where it would be developed which might not help the people in most need. Option B would have less benefits in terms of creating mixed communities.
4. Conditions and services which engender good health	✓	✓	✓	✓	✓	All options - Provision of good quality affordable housing that is adequately heated, etc should improve the health of people on low incomes.
5. Safety and security for people and property	✓	✓	✓	✓	✓	All options - Provision of affordable housing for homeless people would improve personal safety of those people.
6. Good cultural, leisure and recreation facilities available to all	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
10. A quality built environment						There are no direct or indirect impacts of affordable housing

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
	0	0	0	0	0	over or above normal housing.
11. Historic environment protected and enhanced	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
12. Quality of natural landscapes maintained and enhanced	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing
14. Soil resources conserved	0	0	0	0	0	
15. Water resources protected and enhanced	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
17. Minimal risk to human life and property from flooding	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
18. Prudent and efficient use of energy and mineral resources	✓	✓	0	✓	✓	A/B/D/E – It is likely that affordable housing would be designed to ensure that heating costs for residents would be kept to an affordable level. This means that affordable units are more likely to be designed to higher energy efficiency standards which will help to reduce the use of fossil fuels.

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
						C – Less likely to result in significant amounts of affordable housing therefore less impact on minimisation of use of energy resources through designing for affordable warmth.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.
20. Efficient use of physical infrastructure	0	0	0	0	0	There are no direct or indirect impacts of affordable housing over or above normal housing.

Comments on Overall Performance of Different Options

All of the options would deliver some new affordable homes and the issues are primarily about the scale of the requirement and where it should be provided. The most important sustainability objective for these options therefore concerns the provision of decent housing for all, although the potential impact on economic growth is also a significant factor. The Policy maximises provision of affordable housing and is likely to result in the best overall mix of tenures across the city as a whole. Requiring affordable housing from all large housing developments is likely to ensure that the largest amount of affordable housing possible is developed. However, there is a fine balance between gaining affordable housing on as many sites as possible, and deterring house builders from developing in Sheffield with requirements which are too stringent. There are no direct links to most of the environmental objectives, although the provision of affordable housing may have benefits in terms of energy consumption because such dwellings are typically built to higher energy conservation standards than many market dwellings.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of Policy

Design quality will be an important factor in mitigating the impact of any housing development, however, with affordable housing provision it will be even more important in terms of ensuring that homes are not only affordable to buy or rent, but also to run.

OPTIONS SUMMARY SHEET

Issue: Creating Mixed Communities

Policy SH7 (formerly emerging option H6a, preferred option PH6 (part), additional option AH1)

A. Mixed communities will be promoted by encouraging development of housing to meet a range of housing needs including a mix of prices, sizes, types and tenures, and;

(a) providing housing for a broad range of smaller households in the City Centre and other highly accessible locations;
(b) requiring a greater mix of housing in other locations, including homes for larger households, especially families;
(c) providing new purpose-built student accommodation as part of a mix of housing development, with a mix of tenures and sizes of unit on larger sites, primarily in the following areas:
- the City Centre;
- Shalesmoor;
- the Bramall Lane/John Street area
- the Lower Porter Valley.

Limiting new hostels, purpose-built student accommodation and Houses in Multiple Occupation where the community is already imbalanced by a concentration of such uses or where the development would create imbalance.

Rejected Options

B. Continue with UDP (no policy specifically relating to student housing or mixed communities. Only restrain Houses in Multiple Occupation in certain situations)

C. Designate areas (where there is currently a high concentration of shared housing) where new purpose built student accommodation and Houses in Multiple Occupation will not be permitted (formerly emerging option H6c, part of preferred option PH6) (the principle of this is retained but without recourse to designating an area with a boundary)

Note: Emerging option H6c will be carried forward to the City Policies document

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓	0	0	A - Requiring a greater mix of housing including an emphasis on family housing will ensure good housing choice to support economic growth. New student housing could help to regenerate areas and bring developer investment to the city. Major student housing schemes are likely to have some detrimental impact on the viability of smaller landlords that own converted private houses but this would not impact on the economy of the city as a whole
2. Education and training opportunities which build the skills and capacity of the population	✓✓	X	0	A – By requiring more family housing and limiting shared housing in some locations, A could encourage families to move back into areas that are currently dominated by student housing, safeguarding the future viability of local schools. Providing modern student accommodation makes Sheffield a more attractive option for students choosing their university. B – Continuing as at present, communities around the two universities will continue to become more unbalanced and it is likely that families will make up smaller and smaller proportions of residents with knock on effects for school provision.
3. Decent housing available to everyone (including vulnerable people and	✓✓	X	✓/X	A – Provides the opportunity for creating more mixed and balanced communities where one single group does not

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
disadvantaged groups)				dominate. Specifically, requiring a proportion of family housing on larger developments will enable outstanding needs for family housing to be met. However, planning powers to restrain development of Houses in Multiple Occupation are limited to those houses with 7 or more residents, so impact could be limited. Purpose built accommodation is generally more expensive, and could potentially put some students off Sheffield. However there will still be a majority of students living in street properties which will ensure that the housing offer remains diverse. B – Continuing with no policy is likely to lead to further imbalance in communities surrounding the universities with less accommodation available for families. Without the requirement for new developments to meet the needs of families there is a risk that most new housing will cater only to smaller households needs and therefore not provide decent housing opportunities for all. C – Could restrict housing choices for students if shared housing is restricted in certain areas, although this would not impact on existing stock of rented accommodation and there would therefore still be a significant amount of choice.
4. Conditions and services which engender good health	✓	0	0	A - New purpose built student accommodation is likely to be higher quality and could contribute slightly to better

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				environmental health; for example by reducing noise pollution.
5. Safety and security for people and property	✓	X	0	A - Levels of safety and security will depend on the specific location of new purpose built student accommodation. However, in general, management of purpose built accommodation is strong and safety is improved. B – Continuing with no specific policy for student housing is likely to have a negative impact on safety and security. Poor management of some street properties leads to security problems for residents, as well as a less pleasant street scene which can lead to safety and security fears from non-student residents of an area.
6. Good cultural, leisure and recreation facilities available to all	0	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓/X	0	A – Impact depends on the location of new housing development. However, new purpose built student accommodation will be built relatively closely to the main university campuses in order to enable students to walk to university. These locations also tend to be in areas within the city centre or on high frequency public transport routes where students could access other parts of the city by sustainable transport modes. Locations should also link to routes highlighted in walking and cycling strategies.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
				B – Would depend on patterns of development. However, without a steer it is less likely that purpose built accommodation would be built in the most accessible locations in terms of sustainable transport modes.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	0	0	A - Depends on where new housing or student accommodation is built relative to services and facilities and the main university campuses and on the capacity of public transport, however it is likely to be in locations which make efficient use of public transport networks as well as walking and cycling routes. There could also be positive effect if the population density in student areas is reduced by this policy as this could mean fewer cars and therefore potentially improved road safety.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	0	0	A - Provision of a range of housing types including family housing and purpose built student housing does not, in itself, have an impact, however it is highly likely to be developed on previously developed land.
10. A quality built environment	✓	0	✓	A/B – Limiting further development of shared housing in some areas could potentially protect/improve the character of residential areas by limiting dwelling conversions and over development of sites. Impact of new housing depends on design of each development.
11. Historic environment protected and				

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
enhanced	0	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	0	
14. Soil resources conserved	0	0	0	
15. Water resources protected and enhanced	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	0	0	A – Specifically steers purpose built student accommodation towards locations which would enable students to access University and other facilities by foot, and also have good access to public transport which should have a positive impact on reducing greenhouse gas emissions from journeys.
17. Minimal risk to human life and property from flooding	X	0	0	A – Parts of the City Centre, Shalesmoor, Bramall Lane/John Street area and the Lower Porter Valley are situated within Zone 3a High Probability. Housing is considered a More Vulnerable Class Use, and will therefore only be allowed where risk can be mitigated through design B – Makes no link to specific locations and therefore to possible flood risk impacts
18. Prudent and efficient use of energy and mineral resources	0	0	0	

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	
20. Efficient use of physical infrastructure	0	0	0	

Comments on Overall Performance of Different Options

The policy supports the sustainability objectives of providing a range of housing to meet different household needs. It is also likely to support a strong economy by ensuring that the housing needs of people moving to work in Sheffield are met. By encouraging new student accommodation and housing for smaller households in highly accessible areas, the need to travel is reduced which impacts positively on climate change and allows better access to services and facilities.

The most important sustainability objectives in relation to this issue are provision of decent housing, sustainable land use patterns, transport accessibility and providing support for education and training. The rejected option – where there would be no mixed communities or student housing policy, has some negative impacts. Particularly as it would be less likely to lead to provision of decent housing for all. The rejected option also has implications for safety and security, which tends to be more of a problem in areas with high student populations.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

It will be vital to ensure that locations for purpose built student housing are close to the universities with easy access to high frequency public transport routes to improve their viability. Design of purpose built student accommodation will also be important to mitigate potential impacts of large accommodation units on existing or emerging residential areas. It will be important to ensure a mix of housing in the areas where student housing is being promoted.

OPTIONS SUMMARY SHEET **Date of Appraisal: 13th December 2006**

Issue: Locations for Gypsy and Traveller and Travelling Showpeople Sites

Policy SH8 (formerly additional option AH2)

A. Sufficient permanent sites will be made available to accommodate the caravans of Gypsies and Travellers residing in, or resorting to, Sheffield and travelling showpeople residing in Sheffield.

New sites for Gypsies and Travellers will be in areas where housing (use class C3) is an acceptable use, and will be subject to the same requirements as for other development in those areas.

Sites for travelling showpeople will be in areas where any ancillary yards for business use would be acceptable.

Rejected Options

D. Allow gypsy and traveller sites to be located in industrial or commercial areas if there are no other suitable sites available (i.e. in areas where housing would normally not be permitted)

C. Allow gypsy and traveller sites to be located in the Green Belt if there are no other suitable sites available (i.e. in areas where housing would normally not be permitted)

D. Include a detailed criteria policy for identifying suitable sites for Gypsies and Travellers, and travelling showpeople, in the Core Strategy (in locations where C3 would be acceptable). (Similar to continuing with the UDP)

Sustainability Objective	Policy	Rejected Options	Comments

	A	B	C	D	
1. A strong economy with good job opportunities available to the whole community	✓✓	X	X	✓	A/D - Most likely to lead to new sites being developed in locations which would be more accessible to employment opportunities than existing sites. A - Specifically supports the twin business and housing requirements of the travelling showpeople community. B - Uses employment land for housing which could jeopardise current or future business uses. C - Locates new housing in the Green Belt which is less likely to enable accessibility to jobs for people living on these sites.
2. Education and training opportunities which build the skills and capacity of the population	✓	0	X	✓	A/D - Most likely to lead to new sites being developed in locations which would be more accessible to education facilities than existing sites. C - Locates new housing in the Green Belt which is less likely to enable accessibility to employment for people living on these sites.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓✓	X	✓/X	✓	A - Emphasises that new sites should be in areas where housing is an acceptable use which is more likely to lead to sites being developed in locations where health would not be an issue. B - Risks health from an unsuitable residential environment and doesn't contribute to providing good housing choice as this would not be suitable for other types of housing. C - Would depend on the specific location and design of development. D - Would also be likely to result in sites being developed in suitable locations which would enable good quality of

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
					life.
4. Conditions and services which engender good health	✓✓	X	✓	✓✓	A/C/D - Are all likely to lead to new sites being developed in locations where the environment is not unduly harmful to health A/D - Likely to be in areas where there is access to health facilities B - Could be harmful to health depending on the nature of existing and previous surrounding employment uses.
5. Safety and security for people and property	✓/X	X	✓/X	✓/X	A/C/D - Would depend on site location. B - Less likely to be safe and secure due to relative isolation from existing residential areas (although this would also depend on specific site location)
6. Good cultural, leisure and recreation facilities available to all	✓	✓/X	✓/X	✓	A/C - Are more likely to lead to new sites being developed within the main urban area, and in areas suitable for housing which is likely to lead to reasonable access either by public transport or locally to these facilities. B/C - Depends on location of specific sites, although is likely to lead to sites being developed which are isolated, and which may not benefit from good access to leisure facilities.
7. Land use patterns that minimise the need to travel or which promote	✓	✓/X	X	✓	A/D - By requiring new development in areas where housing is an acceptable use, new sites should be

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
the use of sustainable forms of transport					located where there is reasonably good access to services and facilities by public transport. However the impact would depend on specific location of sites. D - Would give more specific criteria about locating sites where there is good public transport or walking access, however A defers this criterion to the City Policies document. B - Would depend on site location C - Likely to lead to sites developed in locations that make accessing other services and facilities by sustainable transport or walking difficult.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓/X	✓	A/B/D - Would lead to sites being developed that are highly likely to be on previously developed land [A and D due to the regional requirement to develop a high percentage of new housing on previously developed land]. However the impact would be dependant on the specific site, and it may be that sites are more likely to be located on the edge of areas which might include greenfield sites. C – Dependant on site location, although this is more

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
					likely to mean development on greenfield sites particularly if private sites have been purchased as agricultural land.
10. A quality built environment	0	0	0	0	
11. Historic environment protected and enhanced	0	0	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	✓/X	0	C – Would depend on site design, however there could be some impact (negative or positive) on the landscape where sites are developed in the Green Belt.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	
14. Soil resources conserved	0	0	0	0	
15. Water resources protected and enhanced	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	0	
17. Minimal risk to human life and property from flooding	✓/X	✓/X	✓/X	✓	Sites to accommodate permanent caravans are considered Hightly Vulnerable. The extent of floos risk will be an important factor in determining appropriate

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
					sites for this use. D – a detailed criteria policy would be able to include criteria around flood risk
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	
20. Efficient use of physical infrastructure	✓	✓	X	✓	A/B/D - Most likely to involve sites being developed in existing urban areas where infrastructure should be available. C – Could lead to development of rural greenfield sites which are unlikely to have infrastructure available.

Comments on Overall Performance of Different Options

A and D strongly support the sustainability objective of making decent housing available to everyone, as they enable new sites for Gypsies and Travellers to be provided to meet their needs, and in suitable locations. This is likely to lead to better quality accommodation and less unauthorised encampments. By requiring sites to be in areas where housing is an acceptable use, new sites will benefit from better accessibility to facilities, shops and services which will improve the health and education opportunities for this group.

B and C would be less sustainable in terms of this issue. C would lead to considerable uncertainty over location and could reinforce isolation particularly in terms of access by sustainable transport to facilities in the main urban area and existing communities. C would potentially have similar implications for isolation and poor access, but also on health which would reinforce disadvantage in this group.
Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy The policy has no likely negative effects. Benefits will be greatest where sites are located in highly accessible locations.

EDUCATION AND HEALTH

OPTIONS SUMMARY SHEET **Date of Appraisal:** November 2006

Issue: Schools

Policy SEH1 (Additional Option AEH1)

A Provision of sufficient modernised education facilities will include:

(a) The redevelopment and refurbishment of all secondary schools and significant investment to upgrade some primary schools;
(b) New education provision for ages 14-19 in the North-West and Mosborough/Woodhouse;
(c) two new Special Education Needs schools in the North-East Urban Area;
(d) expansion of schools, to be funded by developers where there is insufficient local space for demand arising from new housing developments.

Rejected Option

B Have no policy specifically for schools (continuing with the UDP)

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	0	0	Making education provision modern and relevant to today's job market ensures that the whole community can take advantage of good job opportunities, although does not specifically create them itself.
2. Education and training opportunities which build the skills and capacity of the population	✓✓	X	A - Submission Policy builds the skills and capacity of the population. B - If no policy, local Education strategies would not be reflected, and there would be no provision to ensure sufficient education provision for people arising from new development. (This is likely to impact on the overall city provision of education and training opportunities if money had to be diverted from general education funds).
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	0	0	
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓	Education facilities provided close to where people live which reduces the need to travel
8. An efficient transport network which			

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	
10. A quality built environment	0	0	
11. Historic environment protected and enhanced	0	0	
12. Quality natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved	0	0	
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	0	By requiring additional local education provision to meet the needs of new development, this will minimize travel.
17. Minimal risk to human life and			It is unlikely that any of the options would relate to this aim.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
property from flooding	0	0	
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	0	0	

Comments on Performance of Different Options

The Submitted Policy option ensures that education provision, sustainability in terms of transport and land use is taken into account in planning decisions on schools.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

OPTIONS SUMMARY SHEET **Date of Appraisal:** January 2007

Issue: Health Centres

Policy SEH2 (Additional Option AEH2)

A Primary Health Centres will be developed in local communities with the highest level of needs or with changing or growing needs.

Additional health facilities will be provided, subject to funding and need materialising:

(a) in the City Centre, to meet city-wide needs, particularly of vulnerable people, as well as of workers, residents and other users of the centre;
(b) in areas of large new housing development, including Stocksbridge/Deepcar, Darnall and the City Centre, to be funded by developers where there is insufficient local space for demand arising from new developments.

Rejected Option

B Have no policy specifically for Health Centres (continuing with the UDP)

Sustainability Objective	**Policy**	**Rejected Option**	**Comments**
	A	**B**	
1. A strong economy with good job opportunities available to the whole	0	0	

community			
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	✓✓	✓✓	If no policy, the health strategies would still go ahead but the Core Strategy would not reflect them; however there would be no local provision to ensure sufficient health provision for people arising from new development.
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	0	The policy is encouraging provision of health facilities close to where people live which reduces the need to travel
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	0	0	
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	
10. A quality built environment	0	0	

11. Historic environment protected and enhanced	0	0	
12. Quality natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved	0	0	
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	0	By requiring additional local health provision to meet the needs of new development, this will minimize travel.
17. Minimal risk to human life and property from flooding	0	0	It is unlikely that any of the options would relate to this aim.
18. Prudent and efficient use of energy and mineral resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	0	0	

Comments on Performance of Different Options

Having a Core Strategy policy on health provision is better in sustainability terms than not having one, because of the impact on local provision.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

OPEN SPACE AND SPORTS FACILITIES

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Quality and Accessibility of Open Space

Policy SOS1 (formerly Emerging options 0S1b, c, d, e; OS3b)

A Safeguarding and improvement of open space will take priority over creation of new areas. Priority for improvement of open space and related sports and recreational facilities will be given to:

a) district parks and open spaces, including the City Centre, Sheaf Valley and Parkwood Springs and;
b) areas that are more than 1200 metres from a district park or open space that both delivers a range of formal and informal recreational opportunities and is managed to nationally recognised quality standards such as Green Flag.

Rejected Options

B. Only improve the best of each type of open space/facility, resulting in a few excellent quality sites in the city (formerly emerging option OS3a)

C. Ensure there is sufficient accessible provision at the local level but only improved to a minimum level (formerly emerging option OS3c)

D. Continue with the UDP (Policy LR10)

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓✓	✓	✓	A/B - City & District parks specifically require management presence on-site therefore they have the most potential for limited employment. They are also accessible by public transport.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	0	
4. Conditions and services which engender good health	✓✓	✓	✓✓	✓	C - Local provision is expected to have the biggest impact on behaviour and health because it is close for people to use, however people are unlikely to use open spaces that are of poor quality.
5. Safety and security for people and property	✓✓	✓✓	✓✓	✓✓	Upgrading open spaces and creating new ones to a set level of quality should ensure that the open spaces are safe and pleasant environments.
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓✓	✓✓	✓	A - Will provide the most diverse range of recreation opportunity. B - Even more specialist and therefore not available to all. C - Would be locally available to all but not as extensive range.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of	✓✓	✓✓	✓✓	✓	A/B - Can involve a choice of transport modes (including bus).

	Policy	Rejected Options			
transport					C - close to where people live.
8. An efficient transport network which maximises access and minimises detrimental impacts	X	X X	✓✓	✓	A/B - More likely to have a harmful impact in terms of parking and congestion, particularly when they are the location for events and fetes. They also serve a wider area, therefore people are less likely to walk to them.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓	✓	Creating new open spaces where they are needed can be an efficient use of land making good use of previously developed sites and buildings. Improvement of existing open space does not have the same impact.
10. A quality built environment	✓	✓	✓	✓	
11. Historic environment protected and enhanced	0	0	0	0	
12. Quality of natural landscapes maintained and enhanced	✓	✓	✓	✓	
13. Wildlife and important geological sites conserved and enhanced	✓	✓	✓	✓	
14. Soil resources conserved	✓	✓	✓	✓	
15. Water resources protected and enhanced	0	0	0	0	

	Policy	Rejected Options			
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	0	
17. Minimal risk to human life and property from flooding	✓	✓	✓	✓	Any Open space can support sustainable urban drainage systems and provide potential for floodwater storage.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	
20. Efficient use of physical infrastructure	0	0	0	0	

Comments on Overall Performance of Different Options

The Policy aims to achieve a reasonable medium between accessibility and level of service provision, and therefore a suitable level for investment. Thus, whilst the options for local open space in fact perform better against sustainability and equality indicators, it would be near impossible to maintain high standards for every local open space. Subsequently the policy is not considered strongly contrary to the set appraisal criteria and scores more favourably than the rejected options in scenarios that involve people with disabilities or the young/adolescents, as district scale provision offers the widest range accessible facilities.

District sites can also offer potential for limited local employment through staffing of facilities.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Relevant improvements in public transport may mitigate the impacts of investment at this level for less mobile members of the community, such as the very old or those with children.

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Quantity of Open Space

Policy SOS2 (formerly Emerging options 0S1 a, c, f; OS2b)

A As opportunities arise, new open space will be created and existing space safeguarded where:

(a) a quantitative shortage of open space per head of population is identified in the local area
(b) it is required for extending the City's Green Network

Rejected Options

B. Open space and indoor sports facilities available in any area of the city should be to a defined quality. Achieving this quality provision is the most important factor (formerly emerging option OS1b).

C. Everyone should live within a reasonable distance of an open space and indoor sports facilities of a defined quality (formerly emerging option OS1d).

D. Use city average to define areas requiring additional open space (formerly emerging option OS2a).

E. Continue with the UDP approach (Policy LR11).

Sustainability Objective	Policy	Rejected Options				Comments
	A	B	C	D	E	
1. A strong economy with good job opportunities available to the whole community	0	0	0	0	0	
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	0	0	The provision of open space aids the creation of high quality residential environments, but the options are not tied solely to existing or future housing.
4. Conditions and services which engender good health	✓✓	✓✓	✓✓	✓✓	✓✓	Ensuring access to open space and leisure facilities is directly beneficial to health.
5. Safety and security for people and property	✓	✓	✓	✓	✓	
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓✓	✓✓	✓✓	✓✓	The aim of the issue is to identify where additional provision is needed to make open space and indoor sports facilities available to all.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	✓	✓	X	✓	A/B/C - Likely to improve local provision of open space. D – Unlike C, which only supports provision of local facilities, includes strategic open spaces which will have a much wider catchment area. Therefore cycling and walking to them may be less feasible. People will choose to travel further to these strategic sites, although the sites identified on this strategic level should be accessible by public

						transport.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	✓	✓	X	✓	A – Extending the green network to link open spaces will have beneficial effects for transport networks in terms of cycling and pedestrian routes. D - Transport movements are likely to peak at the weekends and will vary depending on whether the open space serves a small catchment area or large catchment area. The strategic sites will be a city-wide destination can cause congestion.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓	✓	✓	Creating new open spaces where they are needed can be an efficient use of land, making good use of previously developed sites and buildings. Improvement of existing open space does not have the same impact.
10. A quality built environment	✓✓	✓	✓	✓✓	✓	A/D - Fit better within an existing open space structure and therefore are likely to be assessed whether appropriate.
11. Historic environment protected and enhanced	0	0	0	0	0	
12. Quality of natural landscapes maintained and enhanced	✓	✓	✓	✓	✓	More and improved woodland may be one outcome of this issue, but not necessarily.
13. Wildlife and important geological sites conserved and enhanced	✓	✓	✓	✓	✓	A - Would maximise connectivity between wildlife habitats. D – Provision of open space is likely to benefit wildlife.
14. Soil resources conserved	✓	✓	✓	✓	✓	Creating new open space is an appropriate after-use of mineral extraction and landfill sites when there is an identified deficiency.
15. Water resources protected and enhanced	0	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a	0	0	0	0	0	

managed response to the effects of climate change						
17. Minimal risk to human life and property from flooding	✓	✓	✓	✓	✓	Open spaces can support sustainable urban drainage systems and provide potential for floodwater storage
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	
20. Efficient use of physical infrastructure	0	0	0	0	0	

Comments on Overall Performance of Different Options

The Policy performs well against the sustainability and equality criteria. SOS2 promotes availability and thus scores strongly against accessibility and health criteria. Through this it also offers opportunities to provide a quality built environment, especially in cases such as after-uses for previously developed land.

It also maximises the links for wildlife between sites and promotes biodiversity, and can also aid the transport network though pedestrian and cycle use of the Green Network.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Policy

Quantity is a key element of open space and it will be important to consider objective methods for assessing it.

ENVIRONMENT

OPTIONS SUMMARY SHEET **Date of Appraisal: June 2007**

Issue: Protecting the Countryside

Policy SE1 (formerly emerging options EN1b, EN2a, ASP1b and 'continue with the UDP')

A The openness of the countryside around the existing built-up areas of the city will be secured by maintaining the Green Belt and protecting other rural areas on the edge of the city. Development needs will be met principally through the re-use of land and buildings rather than through expansion of the urban areas and villages.

Rejected Options

B Existing open areas at Hollin Busk and Holbrook Colliery and surplus greenfield housing land on the edge of the urban area (east of Woodhouse and at Mosborough Village and Moor Valley) will become part of the Green Belt. (formerly Emerging Options EN1a (part); and EN1c (part))

C Retain the general extent of the Green Belt boundary and keep the land in reserve for housing if or when needed to satisfy the city's land requirement in the Regional Spatial Strategy (except for land at Owlthorpe) (formerly emerging option EN1a)

D Add existing surplus greenfield land on edge of urban area at Owlthorpe to Green Belt (formerly part of emerging option EN1c)

E Existing Green Belt at Sheffield Airport will be exchanged for a larger area of new Green Belt in the neighbouring area of Tinsley Park south of the Airport (this option has not been carried forward as a policy but it is shown on the Proposals Map)

F Make selective deletions at specific locations where it would make a critical contribution to urban regeneration or where it would not be possible otherwise to carry out essential work to remove dereliction or contamination. (formerly emerging option EN2b)

Sustainability Objective	Policy	Rejected Options					Comments
		B	C	D	E	F	
1. A strong economy with good job opportunities available to the whole community	X	0	0	0	✓	✓/X	Some sites could provide local employment opportunities in areas remote from the main urban area. But, generally, sites on the edge of the urban area will be less accessible by public transport. Some sites could provide opportunities for investment and reclamation of derelict land. But development on such sites could also divert investment from the City Centre and other priority employment areas.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓/X	✓/X	✓	X	0	0	Some potential housing sites will not be developed for disadvantaged people in relatively remote locations. Remaining sites at Owlthorpe are close to public

							transport and community facilities.
4. Conditions and services which engender good health	0	0	0	0	0	0	
5. Safety and security for people and property	0	0	0	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓✓	0	0	0	0	Open land will be protected and available for informal recreation.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓✓	✓✓	X	X	✓/X	Some sites could provide local employment opportunities close to large residential areas and on sites adjoining high frequency public transport routes. But other sites are likely to have relatively poor accessibility by public transport and/or be more remote from major residential areas. The airport has poor public transport access at present.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	0	✓/X	✓/X	Depends on public transport infrastructure within the vicinity of each site.
9. Efficient use of land which makes good use of previously developed sites and buildings	X	✓	✓	✓	✓	✓	Adding greenfield sites to Green Belt could help concentrate development on brownfield sites. But some brownfield sites are retained in Green Belt, making development more difficult (apart from airport runway).
10. A quality built environment	0	0	0	0	0	0	
11. Historic environment protected and enhanced	0	0	0	0	0	0	

12. Quality natural landscapes maintained and enhanced	✓✓	✓	✓/X	✓/X	✓	✓/X	Landscape quality is not the main reason for adding sites to Green Belt or protecting them as open space but all options likely to result in protection of open land from development. Land at Owlthorpe is open but not especially attractive.
13. Wildlife and important geological sites conserved	✓	✓	✓/X	✓/X	0	✓/X	Some sites to be safeguarded as open space are important for biodiversity, but adding them to Green Belt would give stronger protection.
14. Soil resources conserved	✓✓	✓	X	✓	0	✓	Protection of greenfield sites from development will help to conserve soil resources. Development of land at Owlthorpe will lead to small loss of soil resources.
15. Water resources protected and enhanced	X	0	0	0	0	0	If brownfield sites in the Green Belt are left unreclaimed, this could lead to risks to water quality of watercourses and groundwater due to leaching.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	0	✓	✓/X	✓/X	Not developing marginal sites will prevent emissions from extra traffic.
17. Minimal risk to human life and property from flooding	0	0	0	0	0	0	Assumes sites deleted from Green Belt would not be at risk from flooding.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste	0	0	0	0	0	0	

maximised							
20. Efficient use of physical infrastructure	✓/X	✓/X	✓/X	✓/X	✓/X	✓/X	Protection of greenfield sites on the edge of the urban area should help to concentrate development within the existing built-up areas. However, for Owlthorpe, development will help to make more efficient use of infrastructure already provided.

Comments on Overall Performance of Different Options

There is actually little difference in the performance of the different options, as all assume that sites on the edge of the city, whether to be added to the Green Belt or not, are less accessible than brownfield alternatives and therefore relatively unsustainable. The Policy secures protection for all Greenfield land that is not required to meet housing requirements. For Equalities impacts, Green Belt policy is likely to prevent many developments that would benefit disadvantaged groups. However, there are likely to be few people in these groups living in the Green Belt and their needs will be better met within the urban area.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Policy

Any minor negative effects of retaining land at Owlthorpe for housing are offset by the advantages of its development.

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2006**

Issue: The Strategic Green Network

Policy SE2 (Formerly emerging options EN3a, b, c and d, and 'continue with the UDP')

A Within and closed to the urban areas, a Strategic Green Network will be maintained, which will follow the rivers and streams of the main valleys:
(a) Upper Don
(b) Loxley
(c) Rivelin
(d) Porter
(e) Sheaf
(f) Rother
(g) Lower Don/Canal

And include other strategic corridors through:
(h) Oakes Park to the Limb Valley
(i) Gleadless Valley
(j) Ochre Dike Valley
(k) Shire Brook Valley
(l) Shirtcliffe Brook Valley
(m) Blackburn Brook Valley and its tributaries
(n) Birley Edge
These Green Corridors will be complemented by a network of more local Green Links and Desired Green Links.

Rejected Option

B Do not have a policy on this issue.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓	0	A - Potentially improves pedestrian and cycle routes between residential and employment areas.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	✓✓	0	A - Access to open space for recreation and exercise is good for people's health and this would be promoted by development of the Green Network. B - Does not maximise these opportunities.
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	✓✓	0	A - Access to open space for recreation and exercise is good for people's health and this would be promoted by the development of the Green Network. B - Does not maximise these opportunities.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	0	A – Maintaining and creating open space close to housing and employment will enable people to walk or cycle to work and other destinations.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	0	A - Access to pedestrian and cycle routes will be improved.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
10. A quality built environment	✓	0	A - Potential benefits for improving the setting of buildings.
11. Historic environment protected and enhanced	✓	0	A – Much of Sheffield's industrial heritage is concentrated along the waterway corridors.
12. Quality of natural landscapes maintained and enhanced	✓✓	0	A – Direct benefits for the natural environment.
13. Wildlife and important geological sites conserved and enhanced	✓✓	0	A – Direct benefits for the natural environment.
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	✓✓	0	Concentrating environmental improvements on waterway corridors can lead to removal of sources of water pollution.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	0	More attractive pedestrian/cycle routes could lead to fewer car trips.
17. Minimal risk to human life and property from flooding	✓✓	0	Areas of wildlife interest include floodplains and washlands. Open spaces adjoining watercourses reduce runoff and flooding. Keeping river corridors undeveloped will prevent developments that might be at risk from flooding. Policy restricting development on greenfield land will help to reduce problems associated with flood risk and drainage
18. Prudent and efficient use of energy and mineral			

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
resources	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	0	0	

Comments on Overall Performance of Different Options

The original four options have been combined in the Policy.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Policy

It may be necessary to have different approaches in different parts of the network, such as concentrating access on stretches of riverbank with less value for wildlife.

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2006**

Issue: Improvements to Gateway Routes into and through the City

Policy SE3 (formerly emerging options EN4c, d, e, g, h) (Similar to the UDP approach – policy BE4)

A Gateway routes with priority for improvements will be:

(a) Lower Don Valley Routes, particularly at Attercliffe centre, and at landmark locations on the M1 junctions and east of the Wicker
(b) Penistone Road and landmark locations on Shalesmoor
(c) Inner Ring Road and landmark locations at Park Square
(d) the railway line between Heeley and Blackburn Meadows

Rejected Options

B M1 Corridor (formerly emerging option EN4a)

C Parkway (formerly emerging option EN4b)

D Chesterfield Road (formerly emerging option EN4f)

E Gateway routes (formerly emerging option EN4i)

F A57 Manchester Road (formerly emerging option EN4j)

G A628 (formerly emerging option EN4k)

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
1. A strong economy with good job opportunities available to the whole community	✓	✓	✓	✓	✓	✓	✓	Whilst improving the first impression of the city for investors will not necessarily lead directly to job opportunities accessible to all, it may contribute to it.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	0	0	0	0	
4. Conditions and services which engender good health	✓	✓	✓	✓	✓	✓	✓	Communities along the gateway routes will also benefit from improvements, to varying degrees.
5. Safety and security for people and property	0	0	0	0	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	0	0	0	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	0	0	0	0	0	0	0	
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	0	0	0	0	

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	✓	✓	✓	✓	✓	✓	Improvements may lead to redevelopment of vacant sites.
10. A quality built environment	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	The aim of all the options is to encourage a higher standard of development in gateway locations.
11. Historic environment protected and enhanced	0	0	0	0	0	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	0	0	0	✓	✓	Parts of both routes are through the Green Belt, but as these are already of a high standard and are protected from development by Green Belt policy, they are not given priority for improvement.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	0	0	0	
14. Soil resources conserved	0	0	0	0	0	0	0	
15. Water resources protected and enhanced	0	0	0	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	0	0	0	0	

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
17. Minimal risk to human life and property from flooding	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	0	0	
20. Efficient use of physical infrastructure	0	0	0	0	0	0	0	

Comments on Overall Performance of Different Options

These options are all aimed at improving the built environment along routes into the city taken by potential investors. Given the need to prioritise resources, the routes selected for the policy are those where there is the greatest need and opportunity for improvements, linked to development, and where they would have the greatest impact.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

The only negative effect of the policy is that improvements are less likely to occur on the routes not selected. However there is no reason why these routes should not be improved if opportunities arise.

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2007-09-04**

Issue: Air Quality

Policy SE4 (formerly preferred option PE5, was not considered at emerging options stage)

A Action to protect air quality will be taken in all areas of the city. Further action to improve air quality will be taken across the built-up area, and particularly where residents in road corridors with high levels of traffic are directly exposed to levels of pollution above national targets.

Rejected Options

B A city-wide Low Emission Zone (formerly emerging option EN5a)

C A Low Emission Zone covering the City Centre (formerly emerging option EN5b)

D A Low Emission Zone covering all or part of the Lower Don Valley (formerly emerging option EN5c)

E Low Emission Zones for the District Centres (formerly emerging option EN5d)

F Low Emission Zones or Zero Emission Neighbourhoods for Housing Market Renewal Areas. (Measures would cover emissions from buildings as well as vehicles.) (formerly emerging option EN5e)

G Continue with UDP – No low emission zones, Air Quality Management Areas in the City Centre and Tinsley

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
1. A strong economy with good job opportunities available to the whole community	0	X	X	X	0	0	0	Vehicle restrictions may have impacts on industry and business (in terms of flexibility of operations). However the impacts depend on the particular measures adopted.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	✓	0	0	✓	0	Reducing vehicle emissions would lead to a healthier residential environment but impacts would only be significant for options C and F, and the policy (where there are significant numbers of residents).
4. Conditions and services which engender good health	✓✓	✓✓	✓	✓	✓	✓	✓	Improving public health is one of the main aims of reducing vehicle emissions.
5. Safety and security for people and property	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
6. Good cultural, leisure and recreation facilities available to all	✓	✓	0	0	0	0	0	A/B - Would ensure good air quality in open space recreation areas.
7. Land use patterns that minimise the	✓	0	0	0	0	0	0	Taking action to improve air quality

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
need to travel or which promote the use of sustainable forms of transport								across the urban area is likely to encourage land use patterns that minimise the need to travel or promote sustainable transport, such as mixed-use developments.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	✓✓	✓	✓	✓	✓	✓	All the options would support this aim by encouraging use of more sustainable/ less polluting modes of transport within the LEZ A/B - Would have the greatest effect as the others are area-specific. Continuing with the UDP would support this aim in Tinsley and the City Centre.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
10. A quality built environment	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
11. Historic environment protected and enhanced	✓	0	0	0	0	0	0	Improving air quality across the city urban area will help to protect historic parts of the city, by reducing the pollution they are subject to.

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
12. Quality of natural landscapes maintained and enhanced	✓	0	0	0	0	0	0	Protecting air quality across the city will help to ensure that the quality of natural landscapes is maintained, and that they are not subject to excesses of air pollution criteria.
13. Wildlife and important geological sites conserved and enhanced	✓	0	0	0	0	0	0	Protecting air quality across the city will help to minimise damage caused to wildlife and geological sites by air pollution.
14. Soil resources conserved	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
15. Water resources protected and enhanced	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓✓	✓	✓	✓	✓	✓	The main aim of all the options is to reduce air pollution. The latter 5 options will only deal with air quality in specific areas, whereas the first two will act across the city.
17. Minimal risk to human life and property from flooding	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	0	✓	0	Zero Emissions Neighbourhoods would encourage energy efficient building

Sustainability Objective	Policy	Rejected Options						Comments
	A	B	C	D	E	F	G	
								design.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.
20. Efficient use of physical infrastructure	0	0	0	0	0	0	0	It is unlikely that any of the options would relate to this aim.

Comments on Overall Performance of Different Options

The difference between the options lies in the extent to which measures would be targeted on a larger or smaller area. Air quality needs to be addressed everywhere, but the areas that would benefit most in terms of human health are also those where investment is most likely to be deterred. However, the impacts would depend on the measures to be adopted and the length of time over which they are introduced. The policy has been selected because it aims to tackle air quality across the whole city, rather than a piecemeal approach. The main aim option A will impact upon is reducing air pollution and greenhouse gas emissions. Option A will help to achieve this across the city, as would option B. However the other options would only contribute in specific areas of the city. Option A will help to encourage the use of more sustainable/less polluting modes of transport across the city, although the other options would also be likely to have this effect. This option will also help to engender good health, as improved air quality helps reduce the incidence of respiratory disease.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Policy

There are no weaknesses of protecting and improving air quality across the city, because all areas will be treated equally. A Low Emission Zone could have weaknesses, such as its impact on transport, but these will be explored further in a forthcoming feasibility study

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2007-09-04**

Issue: Renewable Energy Generation

Policy SE5 (formerly emerging options EN6b, EN7b and c)

A Renewable energy capacity in the city will exceed 12MW by 2010 and 60MW by 2021.
Renewable energy generation will mainly occur in the built-up area. Local small-scale generation will be encouraged and developments will be required to generate a proportion of their own energy from renewable sources unless they can demonstrate comparable carbon emission reductions through design. Where appropriate, developments will be encouraged to connect to the City Centre District Heating Scheme. The Smithywood/Hesley Wood/Westwood areas are preferred locations for larger-scale wind generation.

Rejected Options

B Provide for the level of provision required by the Regional Spatial Strategy (this might be around five medium sized wind turbines) (formerly emerging option EN6a)

C Continue with UDP – no policy on renewable energy in the SDF

D Include no spatial policy for renewable energy, relying entirely on the criteria policy in the forthcoming City Policies document (formerly emerging option EN7a) (also continue with UDP)

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
1. A strong economy with good job opportunities available to the whole community	✓	0	0	0	A higher level of development could provide job opportunities. Encouraging small-scale renewable energy generation would support the development of innovative industries.
2. Education and training opportunities which build the skills and capacity of the population	✓	0	0	0	A higher level of development could provide education opportunities, especially when used in schools.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	0	0	In order to exceed the targets, microgeneration will be used. This is already happening in some HMR areas to provide affordable warmth, and can help to reduce fuel poverty. Small-scale generation can help to reduce fuel poverty and fossil fuel dependence.
4. Conditions and services which engender good health	✓	0	0	0	Renewable energy installations can help to minimise air pollution by reducing emissions.
5. Safety and security for people and property	0	0	0	0	It is unlikely that any of the options would relate to this aim.
6. Good cultural, leisure and recreation facilities available to all	0	0	0	0	It is unlikely that any of the options would relate to this aim.
7. Land use patterns that minimise the need to travel or which promote the use of	0	0	0	0	It is unlikely that any of the options would relate to this aim.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
sustainable forms of transport					
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	0	It is unlikely that any of the options would relate to this aim.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	0	It is unlikely that any of the options would relate to this aim.
10. A quality built environment	✓	✓/X	0	0	The visual impact will depend on the location of development. However, small-scale renewable energy generation supports sustainable design.
11. Historic environment protected and enhanced	0	0	0	0	There will be a criteria based policy to prevent development that would damage sites of archaeological value.
12. Quality of natural landscapes maintained and enhanced	✓/X	X	X	X	A higher level of development would have a greater visual impact. However, identifying optimal locations for wind energy generation should protect the most sensitive landscapes.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	There will be a criteria based policy to prevent development that would damage sites of wildlife or geological value.
14. Soil resources conserved	0	0	0	0	It is unlikely that any of the options would relate to this aim.
15. Water resources					It is unlikely that any of the options would relate to this aim.

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
protected and enhanced	0	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓✓	✓	✓	✓	The aim of the targets in the Regional Spatial Strategy is to reduce greenhouse gas emissions and influence climate change. A higher level of renewable energy generation would have a greater effect.
17. Minimal risk to human life and property from flooding	0	0	0	0	It is unlikely that any of the options would relate to this aim.
18. Prudent and efficient use of energy and mineral resources	✓✓	✓	✓	✓	Both options aim to support the development of renewable energy, policy A would do this to a greater extent.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	It is unlikely that any of the options would relate to this aim.
20. Efficient use of physical infrastructure	✓/X	✓/X	0	0	Large-scale installations may require new infrastructure in the form of grid connections.

Comments on Overall Performance of Different Options

The submission policy aims to increase the level of renewable energy generation in the city, and therefore reduce greenhouse gas emissions. It will therefore have the greatest impact on the sustainability aim of minimising greenhouse gas emissions and managing a response to climate change. The submission policy will also have a greater impact on the aim of using energy resources prudently and efficiently by encouraging a higher level of renewable energy generation than the other two options. It could potentially impact negatively on the built environment, depending on the location of the renewable energy installations. However, it will also encourage small-scale renewable energy, which supports sustainable design principles and could therefore benefit the built environment. In exposed areas of high landscape value, the impact may be negative, but in built up areas renewable energy generation may be considered far less obtrusive. SE5 will potentially have a negative impact on the aim of using physical infrastructure efficiently, in cases where new grid connections are required. This is less likely to be an issue with the other options. The submission policy could also have a more negative impact on the aim of maintaining and enhancing quality natural landscapes, as it is likely that large-scale installations would be needed to exceed the targets, which are considered by some as visually intrusive. Despite these potential negative impacts, the submission policy has been selected because the positive impacts are considered to outweigh them.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Policy

As technology changes and renewable energy becomes more mainstream, it is likely that the perceived negative visual impact will lessen.

WASTE

OPTIONS SUMMARY SHEET **Date of Appraisal:** February 07

Issue: Waste Development Objectives

Policy SW1 (Developed from additional option AW1; also broadly similar, although slightly more fine-grained, than the UDP approach)

A The City's waste will be managed more sustainably by:

(a) encouraging less consumption of raw materials through the reduction and re-use of waste products and
(b) making the best use of existing landfill capacity and only using the City's Landfill Allowance Trading Scheme allocations when disposing of organic municipal waste and
(c) restricting consent for additional landfill to those cases where local provision can be justified; and
(d) meeting the national staged targets for recovering value from municipal waste by utilising the existing energy-from-waste plant and developing services and facilities to meet agreed performance targets for recycling or composting household waste and
(e) permitting a range of additional treatment facilities, mainly in industrial areas, sufficient to meet the regional apportionment for commercial and industrial waste together with requirements for other waste streams where the city is best placed to meet local and wider needs and
(f) avoiding the unnecessary use of greenfield land when identifying suitable sites/areas and permitting other waste development.

Rejected Options

B Have no local policy on this matter and rely on national guidance**.**

C Waste development will be promoted where there is a clearly established need for the facilities to cater for locally generated waste or waste from the sub-region that it would be appropriate to manage within the city, and the development accords with the objectives and principles of sustainable waste management and contributes to targets for better management of controlled waste resulting from the RSS, national strategy and European Directives, and the facilities are located and designed to prevent significant adverse environmental impacts, pollution risks or danger to public health resulting from the activity. (Additional Option AW1; Wording of City Policies Emerging Option EW1 with minor amendments)

Sustainability Objective	Policy	Rejected Options		Comments
		B	C	
1. A strong economy with good job opportunities available to the whole community	✓	0	✓	A/C - Local promotion of waste development would help to create employment in this sector.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	
4. Conditions and services which engender good health	✓	✓	✓	All options would promote development that protects human health and prevents pollution.
5. Safety and security for people and property	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	0	

7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	0	✓	A/C - Promoting more self sufficiency at the local level should help to minimise the transport of waste.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	
10. A quality built environment	✓	✓	✓	All options would lead to less unauthorised disposal of waste.
11. Historic environment protected and enhanced	✓	✓	✓	All options would result in less harm to the historic environment.
12. Quality natural landscapes maintained and enhanced	X	X	X	All options promote a use that could have some negative effect on the attractiveness of the natural environment.
13. Wildlife and important geological sites conserved	✓	✓	✓	All options would result in less harm to nature conservation interests, through less fly-tipping.
14. Soil resources conserved	✓	✓	✓	All options would help to conserve soil resources
15. Water resources protected and enhanced	✓	✓	✓	All options would help to protect water resources.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	0	✓	Promoting more self sufficiency at the local level should help to reduce emissions from transporting waste.
17. Minimal risk to human life and property from flooding	0	0	0	
18. Prudent and efficient use of energy and mineral resources	✓	✓	✓	All options encourage waste to be used as a resource.

19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	✓✓	✓	✓✓	A/C - Local promotion of sustainable waste development does more to drive management up the waste hierarchy
20. Efficient use of physical infrastructure	0	0	0	

Comments on Performance of Different Options

All options support the main sustainability themes but the policy has more positive impacts than Option B (reliance on national guidance) because the promotion of more self-sufficiency at the local level would help to provide jobs and minimise the transport of waste with consequent benefits to air quality.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

OPTIONS SUMMARY SHEET **Date of Appraisal:** February 07

Issue: Safeguarding Major Waste Facilities

Policy SW2 (formerly additional option AW2)

A The energy recovery plant at Bernard Road and the landfill site at Parkwood Springs will be retained to meet the City's long term-term requirements for waste management. (Option derived from City Policies Emerging Options EW3 and EW4, also the same as continuing with the UDP)

Rejected Option

B Discount this existing waste infrastructure and plan for building alternative treatment plant(s) elsewhere in the city and disposing of residual waste to landfill sites in neighbouring districts**.**

Sustainability Objective	Policy	Rejected Option	Comments
1. A strong economy with good job opportunities available to the whole community	0	X	Closure of local waste facilities would result in jobs being lost.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and	0	0	

disadvantaged groups)			
4. Conditions and services which engender good health	0	0	
5. Safety and security for people and property	0	0	
6. Good cultural, leisure and recreation facilities available to all	X	0	Retention of landfill capacity at Parkwood Springs would delay restoration of the site and creation of a country park .
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	0	X	Exporting more waste to landfill would mean that it would have to travel longer distances.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	✓✓	0	Retained sites are on previously developed land.
10. A quality built environment	X	0	Existing energy recovery plant would continue to impact on city centre views.
11. Historic environment protected and enhanced	0	0	
12. Quality natural landscapes maintained and enhanced	0	0	
13. Wildlife and important geological sites conserved	0	0	
14. Soil resources conserved	0	0	
15. Water resources protected and enhanced	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed	✓	0	Existing energy recovery plant is optimally located to serve the Central District Heating scheme. Moving the facility elsewhere

response to the effects of climate change			could mean greater use of gas-fired boilers to maintain the current heating network.
17. Minimal risk to human life and property from flooding	0	0	
18. Prudent and efficient use of energy and mineral resources	✓✓	X	Current energy recovery plant supplies the Central District Heating scheme and/or The National Grid. Alternative locations would be limited to generating power because of distance from the heating network.
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	X	Replacement of the energy recovery plant would involve more waste being sent to landfill whilst the new facility is being built.
20. Efficient use of physical infrastructure	✓✓	0	Retention of existing facilities makes good use of existing waste infrastructure.

Comments on Performance of Different Options

Positive impacts, especially for the resource efficiency theme, clearly outweigh some negative impacts for the policy, whereas Option B only has negative impacts.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

It is considered that the visual impact of the existing Energy Recovery Plant on City Centre views and the delay to restoring the Parkwood Springs landfill site are not capable of being mitigated at reasonable cost.

OPTIONS SUMMARY SHEET

Issue: Provision for Recycling and Composting

Policy SW3 (formerly preferred option PW1, similar to continuing with the UDP)

A Increased recycling and composting will be enabled by:

(a) supporting the development of a network of small-scale community composting schemes and new technologies for treating mixed organic waste and using green waste composting facilities at Tinsley and on local farms; and
(b) retaining and improving the current network of five major Household Waste Recycling Centres and, in the longer term, building a new facility to serve the south-west area of the city; and
(c) expanding the number of local recycling points, particularly in existing shopping centres, transport interchanges and at education and health facilities. (Option broadened to take in aspects of City Policies Emerging Option EW2)

Rejected Options

B Adopt current guidelines in the Regional Spatial Strategy of one civic amenity site per 15,000 households, which would mean providing 10 more centres (formerly emerging Option WM1a)

C Provide centres on the basis of catchment areas of 5km which would mean identifying a further 2 or 3 sites where gaps currently exist (formerly emerging option WM1c)

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓	✓	✓	All options should help create more employment in recycling activities.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	
4. Conditions and services which engender good health	✓	✓	✓	All options should help to reduce pollution caused by inappropriate disposal of waste materials.
5. Safety and security for people and property	0	0	0	
6. Good cultural, leisure and recreation facilities available to all	0	0	0	
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	✓✓	✓	All options should reduce travel distances to facilities. Option B would result in greater accessibility for users assuming the additional centres are well located.
8. An efficient transport network which maximises access and minimises detrimental impacts	0	0	0	
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	
10. A quality built environment	✓	✓	✓	All options would help to reduce the incidence of fly-tipping of bulky waste.

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
11. Historic environment protected and enhanced	0	0	0	
12. Quality of natural landscapes maintained and enhanced	0	0	0	
13. Wildlife and important geological sites conserved and enhanced	0	0	0	
14. Soil resources conserved	0	0	0	
15. Water resources protected and enhanced	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	✓	All options would help to divert more waste from landfill and therefore have a beneficial effect in reducing greenhouse gas emissions.
17. Minimal risk to human life and property from flooding	0	0	0	
18. Prudent and efficient use of energy and mineral resources	0	0	0	
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	✓✓	✓✓	✓✓	All options should help to increase the volume of household waste recycled. Option B would not necessarily be superior as the tonnage may be spread out over the network of centres
20. Efficient use of physical infrastructure	0	0	0	

Comments on Overall Performance of Different Options

No negative impacts have been identified and all options would give strong support to the aim of making better use of waste as a resource.

Although Option B is slightly more supportive of the overall aims, the policy is taken forwards because it would address the uneven distribution of centres in a more cost effective way when complemented by additional kerbside collections and an extended network of local “bring” sites.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

There are no obvious negative effects of the policy and therefore no mitigation actions likely to be required.

TRANSPORT

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Transport Priorities

Policy ST1 (formerly emerging options T1a and T1b; preferred option PT1 (similar to UDP policies)

A The strategic priorities for transport are:

(a) promoting choice by developing alternatives to the car
(b) maximising accessibility
(c) containing congestion levels
(d) improving air quality
(e) improving road safety
(f) supporting economic objectives through demand management measures and sustainable travel initiatives

Rejected Option

B Achieving goals through a relaxation of demand management measures in favour of a demand-led approach to transport policy (formerly emerging option T1c)

Sustainability Objective	Policy	Rejected Option	Comments

	A	B	
1. A strong economy with good job opportunities available to the whole community	✓	X	A – Demand management measures in major employment areas could result in reduced access if they are not accompanied by improvements to public transport. This will be mitigated by improving access by sustainable means. This would provide positive support to the local economy therefore ensuring that employment opportunities are available. Economic objectives will also be supported by the reallocation of a proportion of long-stay to short-stay parking, in order to reduce peak hour congestion but also improve the viability of the City Centre. B – May increase access by car in the short term but will lead to congested network in the long term.
2. Education and training opportunities which build the skills and capacity of the population	✓	X	A – Transport may enable people to reach education and training opportunities. B – A demand led approach may adversely affect the viability of public transport services through a reduction in road space and spare capacity, this may lead to reduced access for those without the use of a private car.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	No direct impacts overall
4. Conditions and services which engender good health	✓	X	A – Focus on road safety and accessibility could have positive implications for health. B – Likely to lead to congestion and the associated environmental and health impacts.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
5. Safety and security for people and property	✓	0	A – An emphasis on road safety as a cross cutting theme should ensure that future development is designed with safety in mind. B - No direct impacts overall
6. Good cultural, leisure and recreation facilities available to all	✓	X	A – Transport may enable people to reach these opportunities. B – A demand led approach may adversely affect the viability of public transport services through a reduction in road space and spare capacity, this may lead to reduced access for those without the use of a private car.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	XX	A - Incorporates accessibility as a key theme which seeks to ensure that transport and land use are integrated as fully as possible, whilst the congestion theme ensures that modal shift is encouraged through demand management and improved public transport. B – Likely to lead to increased car journeys, and congested networks.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	XX	A - Incorporates accessibility and air quality as key themes which seek to ensure that transport and land use are integrated as fully as possible, whilst the congestion

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
			theme ensures that modal shift is encouraged through demand management and improved public transport. This also seeks to ensure that the impact on air quality from vehicles is minimised. B –Likely to lead to increased car use, and inefficient use of the network.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	No direct impacts overall
10. A quality built environment	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	No direct impacts overall
14. Soil resources conserved	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	No direct impacts overall

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	XX	A - Demand management and sustainable travel initiatives are aimed at reducing dependency on the car and reducing car use (therefore emissions) however, the emphasis on delivering economic objectives could potentially conflict, therefore an appropriate balance needs to be reached. B – An unmanaged approach to the demand for private vehicle use is likely to result in significant increased car use and therefore increased emissions.
17. Minimal risk to human life and property from flooding	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	✓✓	X	A - Ensures that new developments seek to integrate transport and land use in an attempt to reduce the need to travel. B - Likely to lead to increased car use, and inefficient use of the network.

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
Comments on Overall Performance of Different Options The policy contributes positively to the sustainability and equality objectives, achieving economic growth in a sustainable fashion. The rejected option scores negatively overall as it prioritises short-term economic regeneration at all costs			
Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy The need to fulfil economic objectives should not overshadow the requirement to implement this in a sustainable way hence all the strands of this option would need to be delivered in a balanced manner.			

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Key Route Network

Policy ST2 (formerly emerging option T2b and T4a (part); Preferred options PT2 and PT3; consistent with former UDP policies T2 and T15)

A The Key Route Network will provide good quality access to the City Centre and to the regional and national road network and fulfil the following strategic transport functions:

(a) through-traffic and strategic traffic movements will be concentrated on the 'A' roads of the Network, with best use being made of existing road capacity to enable this;
(b) specific Key Routes will receive integrated 'whole-route' treatment of congestion;
(c) specific Key Routes will receive 'whole-route' treatment as Quality Bus Corridors;
(d) other Key Routes will be treated with bus priority and traffic management measures on a more site-specific basis to alleviate more localised problems;
(e) road-based freight will be concentrated onto those Key Routes (see table below) where it would not have an unacceptable impact on local communities.

Investment in the Key Routes will be complemented by improved links into the communities that they serve to increase their accessibility.

Rejected Options

B A Strategic Road Network based upon the relatively extensive Gold and Silver Routes identified in Sheffield's Speed Management Plan. (formerly emerging option T2a)

C Develop fully integrated transport corridors with improved access to the City Centre by all forms of transport and maximising transport and land use integration. (formerly T4a (part))

D To maximise the amount of road space allocated to private vehicles introduce no further public transport priority measures, including bus lanes and selective signalling (formerly emerging option T8c)

Sustainability Objective	Policy	Rejected Options			Comments
	A	B	C	D	
1. A strong economy with good job opportunities available to the whole community	✓	✓	✓	X	A/B/C - Score positively as a high quality strategic road network would support a strong economy. However, option A may provide access to a wider range of jobs. D – Potentially damaging if result is an increase in congestion and lack of public transport access.
2. Education and training opportunities which build the skills and capacity of the population	✓	✓	0	0	A/B - Score positively as a high quality strategic road network would enable access to education and training opportunities. However, A may provide access to a wider range of facilities.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	0	0	A – Quality Bus Corridors are preferred as one of the key locations for higher housing densities so as to maximise sustainable access. As such they will help increase the proportion of housing available to people who rely on public transport.
4. Conditions and services which engender good health	✓	✓	✓	X	A - Scores better as concentrating traffic onto fewer strategic roads will reduce the volumes carried on routes in close proximity to residential areas, thus reducing the number of potential receptors of adverse air quality. The level of impact across the city would depend upon the balance of overall traffic volume and the number of strategic routes. A/B/C - More integrated approach to land use and transport may lead to greater use of more sustainable, and healthy modes of travel.

	Policy	Rejected Options			
					D - Potential increase on use of private car and therefore emissions.
5. Safety and security for people and property	✓	0	0	0	There could be road safety benefits on local roads, particularly in residential areas, if through traffic is concentrated onto more appropriate routes with greater capacities. However the necessary road safety measures would need to be in place where main roads border residential areas. QBC design considers the needs of pedestrians and ensures that they have safe, DDA-compliant public environment with dropped kerbs and pedestrian crossings.
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓	✓/X	0	Both options score positively as a high quality strategic road network would enable access to these opportunities. However, option A may provide access to a wider range of facilities. Better public transport routes will improve the mobility of people with access to the public transport network, which in turn will improve access to these facilities. C - The level of investment and multi-agency working required to enable the delivery of fully integrated transport corridors may create delivery difficulties and delay.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	0	✓✓	XX	A – Key routes are crucial to ensuring that policies for delivery of housing are sustainable. C – A fully integrated approach would improve the opportunity for interchange between different forms of transport, potentially increasing public transport patronage and reducing the need to travel. D – Will reduce the priority for public transport vehicles, and likely to increase levels of travel.
8. An efficient transport network which	✓✓	✓	✓✓	XX	An efficient strategic road network should balance the need for access

	Policy	Rejected Options			
maximises access and minimises detrimental impacts					whilst minimising congestion. A/B/C - Seek to make the most efficient and appropriate use of the existing road network and therefore score well, independent of the extent of the network. Option A scores slightly better as it promotes the development of key arterial transport corridors that can attract high-frequency public transport and act as a focus for sustainable development. This has the potential to reduce the need to travel, which would minimise detrimental impacts. C – Could increase the passenger capacity of a route by incorporating various modes, and providing greater choice. D - Potentially increases vehicle emissions (due to increase in use of private car) would impact on air quality and congestion.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	0	0	0	A – The development of high frequency Quality Bus Corridors provides the opportunity for effective transport and land use integration, with increased densities in highly accessible locations.
10. A quality built environment	0	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	0	0	No direct impacts overall
14. Soil resources conserved	0	0	0	0	No direct impacts overall

	Policy	Rejected Options			
15. Water resources protected and enhanced	0	0	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	X	✓	XX	B - Will potentially result in the net level of emissions and increases of NO2 in certain areas. A - Would potentially reduce the number of residential area receptors - this could have health benefits for local communities by directing traffic away from inappropriate routes. Public transport is a more sustainable/efficient alternative to private cars. D - Potentially increase vehicle emissions due to increased use of private car which will impact on air quality.
17. Minimal risk to human life and property from flooding	X	0	0	0	Main roads can be vulnerable to flood risk due to its impermeable nature. Blocked drains can further the problem. Any change to transport network involving further surface cover can have significant impact on flood risk, through increased runoff.
18. Prudent and efficient use of energy and mineral resources	0	0	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	✓✓	✓	✓✓	XX	A/B/C - Make use of existing strategic roads which are more appropriate for carrying larger volumes of traffic. This use best suits their purpose. Option A scores slightly better as it promotes the development of key arterial transport corridors which can attract high-frequency public

	Policy	Rejected Options	
			transport and act as a focus for development, thus potentially reducing the need to travel. D - This may result in the network being saturated with private vehicle trips and leave no spare capacity for public transport.

Comments on Overall Performance of Different Options

Options A, B and C are variations on the same issue and therefore score similarly; the difference is in the scale. Whilst there is a difference between how the options perform against some of the criteria (e.g. a strong economy with good job opportunities available to the whole community)) it is not felt that this is so great that one option should score more highly than the other.

Option A is more practical in terms of delivery and could potentially serve a greater number of locations. The delivery mechanism necessary to enable option C may hinder implementation in the short-medium term and may result in lost opportunities. Option D scores negatively as it is not sustainable and reduces access for those without the use of a private car.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

The success of demand management measures would have a bearing upon the impact of the Strategic Road Network in terms of the number of vehicles using it. Option A is more achievable due to its more incremental approach, and would achieve benefits overall. It does rely on partnership working and funding, which can be strengthened through Quality Bus Corridor agreements with operators and South Yorkshire Passenger Transport Executive.

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Management of Demand for travel

Policy ST3 (formerly emerging options T3a, T3c (part), T3d (part), T3e (part), T3f, and UDP policy T16 (part))

A Increasing demand for travel in all parts of the city will be managed to meet the different needs of particular areas through:

(a) promoting good quality public transport and routes for walking and cycling to broaden the choice of modes of travel;
(b) making best use of existing road capacity through the use of variable-message signing and Intelligent Transport Systems;
(c) implementing Travel Plans for new developments to maximise the use of sustainable forms of travel and mitigate the negative impacts of transport, particularly congestion and vehicle emissions;
(d) active promotion of more efficient and sustainable use of vehicles through car clubs, car sharing to increase vehicle occupancy and incentives for using alternatively fuelled vehicles. These will be associated with new residential and commercial developments and particularly in the City Centre;
(e) managing public car parking to reduce long-stay commuter parking in favour of short-stay and providing long-stay park-and-ride facilities near the edge of the main urban area;
(f) creating Controlled Parking Zones to manage traffic levels in constrained locations and encourage the use of more sustainable modes of travel, with priority to: The City Centre (including the area south of the new northern sections of the Inner Relief Road); the Peripheral Residential Parking Zone around the City Centre, incorporating Broomhill, Sharrow, Broomhall and Crookesmoor; the eastern end of the Lower Don Valley, including Atlas and Carbrook;
(g) applying the maximum parking standards for all new developments to manage the provision of private parking spaces.

Rejected Options

B Reduce the need to travel in low accessibility areas by requiring Travel Plans for all new development in these areas (specific areas yet to be determined). (formerly emerging option T3b) (wording is rejected, but the principle of Travel Plans is incorporated into the Policy without reference to specific areas).

C Low priority for demand management measures, in favour of a demand led approach to support investment. (formerly emerging option T3h).

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓✓	XX	Travel Plans should consider access to employment sites by all modes, thus benefiting all members of the community. A - An effective Travel plan can reduce a company's costs. Reducing congestion may create more favourable conditions for business success. Whilst there is a risk that more stringent controls could discourage investment, in the most highly constrained areas of the city this type of measure is possibly the only way in which regeneration can be achieved. By extending the CPZ there is potential to increase short stay parking for shoppers thus supporting the economic prosperity of the city centre. B - An effective Travel plan can reduce a company's costs. C – Access by car is likely to dominate leading to a congested and inaccessible city centre.

	Policy	Rejected Options		
2. Education and training opportunities which build the skills and capacity of the population	✓	✓	0	A/C – A travel plan would ensure that a maximum number of people could access the site.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	No direct impacts overall
4. Conditions and services which engender good health	✓✓	✓✓	XX	A/B – Healthy modes of travel such as walking and cycling can be encouraged as part of a travel plan. A - Reduce dependency on private vehicles, which encourages journeys by walking and cycling and public transport, particularly in the city centre. C – May lead to an increase in car use and therefore increased vehicle emissions.
5. Safety and security for people and property	✓	✓	X	A/B - Travel plans can encourage measures such as safer walking and cycling routes, or secure cycle parking etc. C – May lead to an increase in car use which could potentially increase conflicts with other road users and pedestrians.

	Policy	Rejected Options		
6. Good cultural, leisure and recreation facilities available to all	✓	✓	0	A - Depends on the nature and location of the development. For example, the Lower Don Valley has a high number of leisure and recreation facilities to which access may be improved as a result of this option. By extending the CPZ there is potential to increase short stay parking to provide for access to recreational and leisure facilities where appropriate. B – innovative and sustainable measures which enable increased access to facilities may open up opportunities for people who currently don't have access. C - Depends on the nature and location of the development.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓✓	XX	A – Travel plans seek to achieve a modal shift towards more sustainable transport, thus reducing reliance on private car. A reduction in the number of potential commuter parking spaces on the edge of the city centre through residential parking schemes may reduce the number of commuter journeys by car. Innovative measures such as car clubs reduce dependency upon the private car and reduce private vehicle trips, as well as encouraging use of more sustainable means of travel. B - Travel plans seek to achieve a modal shift towards more sustainable transport, thus reducing reliance on private car. C – No intervention measures applied, thus potentially leading to an uncontrolled increase in the number of private car trips.

	Policy	Rejected Options		
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	✓✓	XX	A – Travel plans seek to ensure access to developments by a choice of modes, predominantly sustainable, which reduce the impact of vehicle emissions on the environment and enable access for all. A combination of CPZs and travel plan measures would be required In order to maximise access. Maximises access opportunities for short stay trips to the city centre. B -Ttravel plans seek to ensure access to developments by a choice of modes, predominantly sustainable, which reduce the impact of vehicle emissions on the environment and enable access for all. C – Potentially leads to an increase in emissions.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	0	0	A - Measures to improve access to areas such as the Lower Don Valley would enable regeneration on previously developed sites.
10. A quality built environment	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	0	No direct impacts overall

	Policy	Rejected Options		
14. Soil resources conserved	0	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	XX	A - Travel Plans and CPZs could contribute to this depending upon the locations. Potential reduction in commuter trips by car (as a result of reduced available parking). Measures such as car clubs can reduce the number and length of car journeys thus reducing emissions and congestion. C – No measures to restrain the use of the private car could lead to a significant increase in vehicle emissions.
17. Minimal risk to human life and property from flooding	0	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impacts overall

	Policy	Rejected Options		
20. Efficient use of physical infrastructure	✓✓	✓	XX	A/B - Travel plans encourage optimal use of existing or proposed access to a site. A - Making best use of existing infrastructure, rather than building new, and making better use of existing parking. Also, a successful car club can reduce car ownership and reduce unnecessary private car trips, encouraging greater use of more efficient and sustainable transport (eg public transport). C – Unrestricted car use could lead to congested, inefficient road networks.

Comments on Overall Performance of Different Options

Options A and B regarding travel plans score well against the both economic and environmental objectives and are now more acceptable to developers as they are considered part of mainstream planning rather than on the fringe. However, Option B is rejected as it is less comprehensive than Option A spatially.

With regard to Option A; these measures, by their own definition, are designed to reduce environmental impacts associated with regeneration, and therefore score well.

Option C scores negatively in its own right, but would also have a negative impact upon existing policy aims, and contradicts national policy.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

In order to make Controlled Parking Zones a viable option, adequate alternative forms of access such as improved public transport are required. The combination of measures within the policy, and the other transport options, should provide the correct balance.

OPTIONS SUMMARY SHEET **Date of Appraisal: 8 August 2005**

Issue: Pedestrian Routes

Policy ST4 (previously emerging option T5a (part) and T5b (part) formerly UDP T7 and T8; preferred option PT6)

A The pedestrian environment will be improved, with priority being given to routes providing access to:

(a) the City Centre, via the main radial routes
(b) other major employment areas:
  (i) University of Sheffield/ Museums/Hallamshire and Children's Hospitals/Collegiate Campus
  (ii) The Northern General Hospital
  (iii) the new Sheffield College site on Penistone Road
  (iv) Sheffield College site on Granville Road
  (v) the Lower Don Valley between Attercliffe and Meadowhall
(c) railway stations and other key transport nodes
(d) District Centres and areas within them.

Walking routes will also be developed along the corridors of the Strategic Green Network.

Rejected Option

B Develop a network of routes (to be identified) connecting the built-up area to the countryside, utilising parks and woodland areas, river valleys and the Green Network. Include links to the National Cycle Network. Including completion of the Five Weirs Walk. (formerly emerging option T5c)

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓✓	0	A - Seeks to prioritise access to key employment and regeneration areas.
2. Education and training opportunities which build the skills and capacity of the population	✓✓	0	A - Seeks to prioritise access to education opportunities such as the universities.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	No direct impacts overall
4. Conditions and services which engender good health	✓✓	✓✓	All options promote healthy modes of travel such as cycling and walking, which can reduce the risk of heart disease and improve cardiovascular fitness.
5. Safety and security for people and property	✓	✓	Appropriately designed pathways with good visibility and lighting can improve a sense of personal security when walking and improve confidence in the mode.
6. Good cultural, leisure and recreation facilities available to all	✓	✓✓	A – A general improvement in the pedestrian environment will provide better access to a variety of facilities including cultural, leisure and recreation destinations. B – This option specifically targets recreational and leisure inks.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	0	A – Effective land use integration could contribute to a reduction in the length of journeys made on a regular basis. Improved pedestrian access links to the city and district centres would support this and improve the potential for walking trips. B – No direct impacts.
8. An efficient transport network which maximises			These options promote sustainable alternatives to the private

	Policy	Rejected Option	
access and minimises detrimental impacts	✓✓	✓✓	car and therefore score highly against this objective.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	No direct impacts overall
10. A quality built environment	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	✓	B - Would enable the development of high quality routes and facilities that may provide the opportunity to protect and enhance the natural environment.
13. Wildlife and important geological sites conserved and enhanced	0	0	No direct impacts overall
14. Soil resources conserved	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	Improved pedestrian links provide a viable alternative to the car for many journeys.
17. Minimal risk to human life and property from flooding	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	No direct impacts overall
19. Minimal production of waste and the reuse,			No direct impacts overall

	Policy	Rejected Option	
recycling and recovery of waste maximised	0	0	
20. Efficient use of physical infrastructure	✓	✓	These options promote sustainable alternatives to the private car, and the links would seek to maximise use of exiting infrastructure.

Comments on Overall Performance of Different Options

The policy targets routes that tie in with the key objectives of maximising access to economic opportunities and therefore score highly against economic sustainability objectives, as well as the environmental ones.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Would need to ensure that where appropriate opportunities for cycling were also integrated safely and effectively.

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Cycling Routes

Policy ST5 (formerly emerging option T5b (part), UDP T11 (part) and UDP T10 (part); preferred option PT7)

A Improvement and development of the cycle network will be given priority on strategic links, mainly to key employment locations, particularly on routes:

(a) providing access to the City Centre from the University, Bramall Lane, Charlotte Road and Granville Street
(b) making up the City Centre ring route northern section (Upper Hanover Way – Exchange Street – Pond Street)
(c) providing access within the City Centre
(d) through the Upper and Lower Don Valley, with a network of links to neighbouring residential areas
(e) between the Northern General Hospital and City Centre (via Riverside)
(f) through the Blackburn Valley, extending through Smithy Wood and Hesley Wood to Chapeltown and the TransPennine Trail.

Rejected Options

B Continue to develop an accessible route network across the city as opportunities arise, that helps make cycling a realistic travel choice for everyday journeys (formerly emerging option T5a)

C Develop a network of routes (to be identified) connecting the built-up area to the countryside, utilising parks and woodland areas, river valleys and the Green Network. Include links to the National Cycle Network. Including completion of the Five Weirs Walk (formerly emerging option T5c)

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓	0	A - Scores most highly as it seeks to prioritise access to key employment and regeneration areas. B - Could achieve this but it is not specifically focussed on these key links.
2. Education and training opportunities which build the skills and capacity of the population	✓✓	✓	0	A - Scores most highly as it seeks to priorities access to education opportunities such as the universities. B - Could achieve this but it is not specifically focussed on these key links.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	No direct impacts overall
4. Conditions and services which engender good health	✓	✓	✓	All these options promote healthy modes of travel such as cycling and walking.
5. Safety and security for people and property	0	0	0	No direct impacts overall
6. Good cultural, leisure and recreation facilities available to all	✓	✓	✓✓	C - Scores most highly as it seeks to priorities access to recreational facilities. A/B - Could achieve this but it is not specifically focused on these key links.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	0	0	0	No direct impacts overall
8. An efficient transport network which maximises				All these options promote sustainable alternatives to the

	Policy	Rejected Options		
access and minimises detrimental impacts	✓✓	✓✓	✓✓	private car and therefore score highly against this objective.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	No direct impacts overall
10. A quality built environment	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	✓	C - Would enable the development of high quality routes and facilities that protect and enhance the natural environment.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	No direct impacts overall
14. Soil resources conserved	0	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	✓	Improved networks provide a viable alternative to the car for many journeys.
17. Minimal risk to human life and property from flooding	0	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall

	Policy	Rejected Options		
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	✓	✓	✓	These options promote sustainable alternatives to the private car, and the routes would seek to maximise use of existing infrastructure.

Comments on Overall Performance of Different Options

All options perform well as they are fundamentally sustainable and of benefit to all. However, the policy targets routes that tie in with the key objectives of maximising access to economic opportunities, and therefore score highly against economic sustainability objectives as well as the environmental ones.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

The City Policies would need to support these Key links by ensuring that adequate cycle parking was provided at destinations

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Priority Routes for Bus and Bus Rapid Transit

Policy ST6 (Formerly emerging options T8a, T9a and b; preferred options PT3 and PT10; consistent with UDP policies T2 and T15)

A Bus priority measures on Key Routes will be developed to reduce the impact of congestion on buses and improve speed, reliability, frequency and accessibility in the main urban area and on links to economic regeneration areas. Measures will include; traffic management schemes (including bus lanes), park-and-ride sites, new transport interchanges, traffic signal technology, improved information and waiting areas for users, and bus/light rail rapid transit, where appropriate.

The following Key Routes will be improved through bus priority measures over the period to 2011:
(a) A6109 City Centre – M1 J34 North
(b) A6178 City Centre – M1 J34 South
(c) A6178/ B6200 City Centre – Woodhouse
(d) A6135 City Centre – Mosborough/Halfway
(e) B6388 Heeley – Gleadless
(f) A625 Ecclesall Road
(g) A61 Penistone Road

Site-specific public transport priority measures will be develop on a number of other Key Routes, to include:
(h) A61 Sheffield Inner Relief Road
(i) C105 Woodseats Road
(j) B6079 Infirmary Road /Langsett Road

Routes will be identified for Bus/Tram Rapid Transit between Sheffield and Rotherham.

Rejected Options

B Develop fully integrated transport corridors with improved access to the City Centre by all forms of transport and maximising transport and land use integration (formerly emerging option T4a)

C To maximise the amount of road space allocated to private vehicles introduce no further public transport priority measures, including bus lanes and selective signalling (formerly emerging option T8c)

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓	✓	X	A/B - Score positively as a high quality strategic road network would support a strong economy. However, Option A may provide access to a wider range of jobs. C – Potentially damaging if result is an increase in congestion and lack of public transport access.
2. Education and training opportunities which build the skills and capacity of the population	✓	0	0	A - Scores positively as a high quality strategic road network would enable access to education and training opportunities.
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	0	A – Quality Bus Corridors are preferred as one of the key locations for higher housing densities so as to maximise sustainable access. As such they will help increase the proportion of housing available to people who rely on public transport.
4. Conditions and services which	✓	✓	X	A - Scores better as concentrating traffic onto fewer strategic roads will

	Policy	Rejected Options		
engender good health				reduce the volumes carried on routes in close proximity to residential areas, thus reducing the number of potential receptors of adverse air quality. The level of impact across the city would depend upon the balance of overall traffic volume and the number of strategic routes. A/B - More integrated approach to land use and transport may lead to greater use of more sustainable and healthy modes of travel C - Potential increase on use of private car and therefore emissions.
5. Safety and security for people and property	✓	0	0	There could be road safety benefits on local roads, particularly in residential areas, if through traffic is concentrated onto more appropriate routes with greater capacities. However the necessary road safety measures would need to be in place where main roads border residential areas. QBC design considers the needs of pedestrians and ensures that they have safe, DDA-compliant public environment with dropped kerbs and pedestrian crossings.
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓/X	0	Both options score positively as a high quality strategic road network would enable access to these opportunities. However, A may provide access to a wider range of facilities. Better public transport routes will improve the mobility of people with access to the public transport network, which in turn will improve access to these facilities. B - The level of investment and multi-agency working required to enable the delivery of fully integrated transport corridors may create delivery difficulties and delay.
7. Land use patterns that minimise the need to travel or which promote the	✓✓	✓✓	XX	A – Key routes are crucial to ensuring that policies for delivery of housing are sustainable.

	Policy	Rejected Options		
use of sustainable forms of transport				B – A fully integrated approach would improve the opportunity for interchange between different forms of transport, potentially increasing public transport patronage and reducing the need to travel. C – Will reduce the priority for public transport vehicles, and likely to increase levels of travel.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	✓✓	XX	An efficient strategic road network should balance the need for access whilst minimising congestion. A and B seek to make the most efficient and appropriate use of the existing road network and therefore score well, independent of the extent of the network. A - Scores slightly better as it promotes the development of key arterial transport corridors that can attract high-frequency public transport and act as a focus for sustainable development. This has the potential to reduce the need to travel, which would minimise detrimental impacts. B – Could increase the passenger capacity of a route by incorporating various modes, and providing greater choice. C – Potentially increases vehicle emissions (due to increase in use of private cars) which would impact on air quality and congestion.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	0	0	A – The development of high frequency Quality Bus Corridors provides the opportunity for effective transport and land use integration, with increased densities in highly accessible locations.
10. A quality built environment	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	No direct impacts overall

	Policy	Rejected Options		
12. Quality of natural landscapes maintained and enhanced	0	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	0	No direct impacts overall
14. Soil resources conserved	0	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	XX	A - Would potentially reduce the number of residential area receptors - this could have health benefits for local communities by directing traffic away from inappropriate routes. Public transport is a more sustainable/efficient alternative to private cars. C - potentially increase vehicle emissions, due to increased use of private cars, which will impact on air quality.
17. Minimal risk to human life and property from flooding	X	0	0	Main roads can be vulnerable to flood risk due to their impermeable nature. Blocked drains can further the problem. Any change to transport network involving further surface cover can have significant impact on flood risk through increased runoff.
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impacts overall

	Policy	Rejected Options		
20. Efficient use of physical infrastructure	✓✓	✓✓	XX	A/B - Make use of existing strategic roads which are more appropriate for carrying larger volumes of traffic. This use best suits their purpose. Option A scores slightly better as it promotes the development of key arterial transport corridors which can attract high-frequency public transport and act as a focus for development, thus potentially reducing the need to travel. C - This may result in the network being saturated with private vehicle trips and leave no spare capacity for public transport.

Comments on Overall Performance of Different Options

Option A is more practical in terms of delivery and could potentially serve a greater number of locations. Option B scores negatively as it is not sustainable and reduces access for those without the use of a private car.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

The success of demand management measures would have a bearing upon the impact of the Strategic Road Network in terms of the number of vehicles using it. Option A is more achievable due to its more incremental approach, and would achieve benefits overall. It relies on partnership working and funding, which can be strengthened through Quality Bus Corridor agreements with operators and South Yorkshire Passenger Transport Executive.

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: Rail Connections

Policy ST7 (formerly emerging option T6a and part of T6b, T7a; preferred options PT8 and PT9)

A Priority for development of the rail network within the city will be given to improving connections with London, Leeds and Manchester and urban areas within the City Region. Local stations and services will be improved where there would still be enough capacity for longer distance services.

The existing track-bed of the rail route between Sheffield and Dore stations and the freight line from the City Centre to Stocksbridge will be safeguarded for transport uses.

Former rail routes will be safeguarded for future transport use, either rail, where possible, or walking and cycling, where suitable, at:

(g) the Blackburn Chord near Tinsley
(h) the Woodhead route north of Deepcar
(i) the Meadowhall to Chapeltown (former Great Central) line

Rejected Options

B Improvements to the local rail network, including the provision of new stations will be encouraged and promoted, including new stations at Ecclesfield, Heeley, Millhouses and Totley. (formerly emerging option T6b(part) and UDP policy T4)

C Development in areas that require inward investment to meet regeneration objectives take precedence over the safeguarding of disused rail alignments if they are judged to be unlikely to re-open. (formerly emerging option T7b)

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓	✓/X	✓	A - May enhance Sheffield's economy by improving Sheffield's regional accessibility. B – May improve internal connectivity but may not necessarily make a great contribution to strengthening the economy. This option is also limited by infrastructure availability and the capacity and cost implications of the proposed new stations. C - Increase the supply of land for development, potentially increasing employment opportunities.
2. Education and training opportunities which build the skills and capacity of the population	✓	0	0	A - May provide better links to higher education but other training is often more locally based and accessed by other means (e.g. local buses etc).
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	No direct impact overall
4. Conditions and services which engender good health	0	0	0	No direct impact overall
5. Safety and security for people and property	0	0	0	No direct impact overall
6. Good cultural, leisure and recreation facilities available to all	✓	0	0	A – Improving regional connectivity would improve links to Meadowhall interchange and its associated leisure and recreational facilities.

	Policy	Rejected Options		
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	0	X	This is largely about connections rather than land use patterns, however; A - If an existing line were to re-open there would be the opportunity for modal shift to rail. C – Potentially losing opportunities for re-opening in future if disused lines are developed upon.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	✓	X	A – Regional connectivity could attract greater use of rail as a more sustainable alternative to the car for longer journeys. B - Would have a smaller catchment in terms of potential passengers and may impact upon the viability of local bus services. Protection of routes means that if an existing line were to re-open there would be the opportunity for modal shift from private car to rail (a more sustainable travel choice). C – Potentially losing opportunities for re-opening in future.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	✓	C – Would enable development opportunities to be realised where rail infrastructure is unlikely to be re-opened. This could be on previously developed sites.
10. A quality built environment	0	0	0	No direct impact overall
11. Historic environment protected and enhanced	0	0	0	No direct impact overall
12. Quality of natural landscapes maintained and enhanced	0	0	0	No direct impact overall
13. Wildlife and important geological sites				No direct impact overall

	Policy	Rejected Options		
conserved and enhanced	0	0	0	
14. Soil resources conserved	0	0	0	No direct impact overall
15. Water resources protected and enhanced	0	0	0	No direct impact overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	0	Potential benefit where travel by private car is reduced as a result.
17. Minimal risk to human life and property from flooding	0	0	0	No direct impact overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impact overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impact overall
20. Efficient use of physical infrastructure	✓✓	✓	X	A – Improving regional access could attract a greater number of passengers, therefore ensuring the most efficient use of the existing infrastructure. B – May result in shorter journeys by public transport. C – Potentially damaging as existing infrastructure could be lost.

Comments on Overall Performance of Different Options

In terms of efficiency and establishing Sheffield as a regional centre, Option A performs better. This is likely to replace longer journeys that may currently be made by car, thus having greater significance in terms of improving air quality. Option B could be less effective as services would be in competition with local bus provision and may be less favourable for shorter journeys.

Where infrastructure is safeguarded (A) we face the possibility of passing up regeneration/development opportunities if it is unlikely that the line would be re-opened; however if re-opening opportunities do arise in future this option would also enable access to regeneration and employment areas to be opened up (which would otherwise be lost).

Option C prioritises economic investment but this may be to the detriment of sustainable access in the future if lines are developed upon, although it may be that the opportunities never arise to re-open this infrastructure.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Option A does make some allowance for local provision, where it would not affect regional connections.
A realistic and balanced approach is required if an investment opportunity were to arise on the site of existing but disused infrastructure. A case-by-case approach may be required.

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2006**

Issue: Park-and-Ride and Car Parking in the City Centre

Policy ST8 (formerly emerging options T11a and T11c, T14 a and c; preferred options PT11 and PT14 UDP T6 (part) T23 (part) and T24 (part))

A Short stay parking provision within the City Centre will be increased to 9,500 spaces and long-stay parking will be reduced to enable this to be achieved. In support, pricing policies will be implemented to favour short-stay over long-stay parking.

Additional long-stay parking to serve the City Centre will be provided through park-and-ride facilities outside the centre and the strategic priority corridors or locations including:
(a) Penistone Road
(b) Ecclesall Road
(c) Abbeydale Road
(d) Meadowhead/Chesterfield Road
(e) Sheffield Parkway
(f) Lower Don Valley

In addition, new locations will be developed where demand exists and as and when opportunities arise, particularly where they would serve links with improved facilities and infrastructure for bus travel.

Rejected Option

B Increase long stay parking in the City Centre where necessary to attract developers (formerly emerging option T14c)

Sustainability Objective	Policy	Rejected Option	Comments
	A	B	
1. A strong economy with good job opportunities available to the whole community	✓✓	X	A - Supports the development and viability of the City Centre as part of an integrated transport strategy. The development of P&R provides sustainable access for employees and visitors, whilst enabling some reallocation of parking in the City Centre from long to short-stay in order to support economic transformation aspirations. In many instances P&R can offer improved access to businesses that are in constrained locations. Increased accessibility by public transport and reduced congestion will be beneficial to business growth. Increased short stay parking in the City Centre is intended to safeguard the economic investment taking place and to provide for shoppers and visitors, thus improving the viability of the City Centre and improving its attractiveness as a leisure destination. The reduction in long-stay parking is supported by the further expansion of P&R which provides peripherally located long-stay parking suitable for commuters. B - Some may see this as a positive move, as increased commuter parking could improve recruitment. In the short term it may provide improved access for car users only, but to the detriment of public transport users, and in the long term congestion will continue. This option could also reduce

	Policy	Rejected Option	
			short stay parking availability for shoppers and visitors, undermining the investment in the city's retail centre.
2. Education and training opportunities which build the skills and capacity of the population	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	
4. Conditions and services which engender good health	✓	0	A – P&R could reduce the number of commuter trips, and therefore emissions, in the City Centre - an area that is currently designated as an Air Quality Management Area. Improvements in health can be attributed to improvements in air quality.
5. Safety and security for people and property	✓	0	A - Park and ride can provide safe and secure parking.
6. Good cultural, leisure and recreation facilities available to all	✓	X	A - Better access to facilities where limited parking is available. B - An increase in long stay parking would reduce opportunities for short stay provision, therefore reducing access to such facilities.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	X	A – Efficient use of land in city centre; car parking space can be used for development. Park and Ride can also result in reduced mileage by private vehicles. B – Inefficient use of car parking space.

	Policy	Rejected Option	
8. An efficient transport network which maximises access and minimises detrimental impacts	✓✓	X	A - Maximises access by displacing long stay commuter parking form the city centre to peripheral locations thus freeing up city centre parking for short stay shopper and leisure use. B - Detrimental impacts (i.e. air quality, congestion) greatly outweigh any short-term improved access gained by car users.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	0	A - Park and Ride sites are flexible and can be adapted/shaped to fit most previously developed brown-field sites.
10. A quality built environment	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	No direct impacts overall
14. Soil resources conserved	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed	✓	✓/X	A - Reduced long-stay parking in the city centre may result in a reduction in commuter trips during the peak periods, which

	Policy	Rejected Option	
response to the effects of climate change			may help reduce the number of poor air quality episodes in the city. Increased short-stay parking provision will encourage shopping and leisure trips which will be more evenly spread out throughout the day, reducing detrimental peaks. B - This may exacerbate pollution levels at the peak periods but may minimise this effect in the off peak period as there will be a lesser turnover of spaces during the day.
17. Minimal risk to human life and property from flooding	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	✓✓	X	A - Making best use of city centre land, and most efficient use of existing road space through reduced journeys by private vehicle/sole occupancy car journeys. B - Inefficient use of car parking space.

Comments on Overall Performance of Different Options

Generally, Option A scores positively against both environmental and economic aims, reflecting it being seen as part of an integrated transport strategy supported by complimentary measures such as Park and Ride. A reduction in long-stay parking, with an increasing emphasis on short-stay will help support the economic investment being made in the City Centre and improve its competitiveness and attractiveness as a destination. It is the intention that long-stay parking provision will remain at a similar level but will be provided through Park and Ride, reducing the number of commuter journeys contributing to congestion at peak periods. Short-stay parking provision will attract more leisure and shopper trips, which would be more evenly distributed throughout the course of a day, thus reducing the detrimental impacts of the traditional peak periods, in terms of air quality and congestion.

Option B, however, could have detrimental environmental impacts and, although there may be short-term benefits for commuters, this would soon be offset in the long term due to environmental and congestion issues.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Careful implementation and effective marketing of Park and Ride would be needed to ensure that it was an attractive alternative – the South Yorkshire Park and Ride strategy will provide a basis for a coordinated county-wide approach to this. There may be an increase in traffic accessing short-stay parking (see criterion 16), but it is likely that this will be outside of peak hours. Introduction of measures such as intelligent signing to car parks will contribute to managing this traffic in the City Centre.

OPTIONS SUMMARY SHEET **Date of Appraisal: January 2006**

Issue: Freight

Policy ST9 (formerly Emerging Options T12a, T12c (part), T12d and T12 e(part); Preferred option PT12; UDP policy T27)

A The movement of freight by sustainable modes will be encouraged, primarily rail through promoting the use of Tinsley Rail Freight Terminal. Road-based freight will be concentrated onto the Key Route Network.

The impact of road-based freight will be managed and minimised through the production of Freight Management Strategies, as part of the Travel Plan process.

Rejected Options

B Locate developments with high numbers of freight movements within close proximity of rail freight facilities. (formerly emerging option T12b)

C Concentrate freight movements onto the road network, maximising usage of the Strategic Road Network. (formerly emerging option T12e (part))

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole	✓	✓	X	A/B - Providing a suitable network for the efficient distribution of freight may strengthen the industrial economy of the area.

	Policy	Rejected Options		
community				C – Concentrating freight onto the road network could contribute to increased congestion and therefore increased journey times (a cost to business).
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	No direct impacts overall
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	No direct impacts overall
4. Conditions and services which engender good health	0	0	0	No direct impacts overall
5. Safety and security for people and property	0	0	0	No direct impacts overall
6. Good cultural, leisure and recreation facilities available to all	0	0	0	No direct impacts overall
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓✓	✓✓	0	Maximise transfer of freight from road to rail by locating premises close to rail freight facilities.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓	✓	X	A/B – Potentially reducing the number of freight journeys by road, although realistically a large number of trips will still be made by road. C – In comparison with the other options this has the least potential to minimise the detrimental impact of freight distribution.
9. Efficient use of land which makes good use of previously developed sites and buildings	✓	0	0	A – Makes efficient use of existing railway infrastructure.

	Policy	Rejected Options		
10. A quality built environment	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	0	0	0	No direct impacts overall
13. Wildlife and important geological sites conserved and enhanced	0	0	0	No direct impacts overall
14. Soil resources conserved	0	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	0	A – Alternative modes may include use of waterways which could potentially contribute to pollution of waterways. However, the scale of this mode for freight movement is likely to be very limited and therefore a neutral score is given.
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	✓	✓	X	A/B - Potentially reduces the number of HGVs on roads (and therefore emissions). C - In comparison to the other options this is likely to have greater impacts upon air quality as freight is concentrated on the road network.
17. Minimal risk to human life and property from flooding	0	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall
19. Minimal production of waste and the				No direct impacts overall

	Policy	Rejected Options		
reuse, recycling and recovery of waste maximised	0	0	0	
20. Efficient use of physical infrastructure	✓✓	0	✓/X	A – These offer the opportunity to use existing under-used infrastructure, and are more sustainable than road based freight distribution. C – In comparison to the other modes of distribution this is less efficient, however, in terms of the road network the strategic roads are the most appropriate for this use.

Comments on Overall Performance of Different Options

Option A scores positively as maximising the use of rail for freight movements offers the opportunity to reduce the number of road miles. Option C may require least investment in new infrastructure but has potentially more detrimental impacts. Option A provides a realistic balance between road and rail (and other more sustainable modes). Option B taken on its own would limit the availability of locations for business and industry and would need to work in tandem with the policy.

Further Issues to Consider/Measures which could Mitigate Negative Effects of the Policy

Any negative impacts would need to be mitigated through Freight Management Plans.

OPTIONS SUMMARY SHEET **Date of Appraisal: December 2005**

Issue: New Roads

Policy ST10 (formerly emerging options T13b, T13 c (part); preferred option PT13; UDP policy T17 (part))

A There will be no significant increase in the physical capacity of the city's highway network. New through-roads will only be built, and existing roads improved, in a limited number of circumstances to:
(a) improve the movement of public transport, cyclists or pedestrians; or
(b) enable regeneration; or
(c) reduce serious traffic impacts on the local environment where there is no sustainable alternative option

The following road schemes are proposed:
(1) Improvements to M1 Junctions 34 North and South
(2) M1 Junction 34 relief road (Halfpenny Link)
(3) Improvements to Sheffield Parkway (A630) and Catcliffe Junction
(4) Claywheels Land improvements associated with proposed new road and crossing of River Don
(5) A61 Penistone Road/Herries Rd improvements
(6) A6102 Herries Rd/Barnsley Rd (Fir Vale)
(7) A621 Bramall Lane widening

Rejected Options

B New roads developed to meet the growth in traffic over the period of Sheffield's Local Development Framework (predict and provide). (formerly emerging option T13a)

C No further road building permitted. (formerly emerging option T13d)

Sustainability Objective	Policy	Rejected Options		Comments
	A	B	C	
1. A strong economy with good job opportunities available to the whole community	✓✓	✓/X	X	A – New roads only built where they would open up areas for regeneration and where new employment would be created, or where they would reduce congestion at strategic sites providing more favourable conditions for business growth. B – Initially could improve access but as the roads become congested again, the problems increase and could become worse than ever. C – No further road building may prevent development of currently inaccessible locations.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	No direct impacts overall
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	✓	0	0	A – New roads or altering road layouts to support regeneration proposals may improve access to new housing stock in mixed-use Masterplan areas.
4. Conditions and services which engender good health	✓/X	XX	0	A – Depending on location, increased emissions and increased physical inactivity associated with car use would contribute to conditions which would be detrimental to health. However, new road building would be in a more controlled manner, which would seek to maximise use of public transport through the

	Policy	Rejected Options		
				design of new infrastructure. B- Increased emissions and increased physical inactivity associated with car use would contribute to conditions which would be detrimental to health. C – No change to current situation
5. Safety and security for people and property	0	0	0	No direct impacts overall
6. Good cultural, leisure and recreation facilities available to all	0	0	0	No direct impacts overall
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓/X	XX	0	A – Developing new roads in congested areas would need to be designed to maximise their use by public transport, therefore the impact could be positive with regard to promoting sustainable transport. B - Inefficient, as developing new roads will create new journeys. C – No change to current situation.
8. An efficient transport network which maximises access and minimises detrimental impacts	✓/X	XX	✓/X	A – In the short term this maximises access to areas which are currently difficult to access through the existing road network, but with potential for detrimental impact of increased traffic (congestion, air quality), although roads would need to designed to maximise use of public transport. B – This is self-perpetuating as evidence shows that increasing capacity increases the number of journeys

	Policy	Rejected Options		
				made, therefore increasing the demand for further roads. C – Minimises detrimental impacts but may not maximise access unless improved public transport on existing routes was provided as an alternative.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	No direct impacts overall
10. A quality built environment	0	0	0	No direct impacts overall
11. Historic environment protected and enhanced	0	0	0	No direct impacts overall
12. Quality of natural landscapes maintained and enhanced	X	X	✓	A/B - Increase in number of new roads built could potentially impact upon the natural environment. C – No change to current situation, but no further road building would mean that natural landscapes would not be threatened.
13. Wildlife and important geological sites conserved and enhanced	0	0	0	No direct impacts overall
14. Soil resources conserved	0	0	0	No direct impacts overall
15. Water resources protected and enhanced	0	0	0	No direct impacts overall
16. Air pollution and greenhouse gas emissions minimised and a managed response to the	X	XX	✓	A – Increased road building will increase numbers of vehicles on the roads and, therefore, emissions but to

	Policy	Rejected Options		
effects of climate change				a lesser extent than B as the amount of new roads built would be controlled, and negative impacts could be mitigated by increased public transport priority and demand management measures. B - Increased road building will increase numbers of vehicles on the roads and, therefore, emissions. It is understood that new EU guidance requires the prevention of new development (including roads) if it would breach established air quality exceedance levels. So whilst Options A and B might have a detrimental effect on air quality, this impact would be subject to a limit and would not be uncontrolled. C – Would minimise the potential for increasing traffic
17. Minimal risk to human life and property from flooding	0	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	X	X	✓	A/B - New infrastructure rather than making more efficient use of that already existing. C – No new roads would necessitate that we make the most efficient use of existing roads, particularly in the

	Policy	Rejected Options		
				light of the continued growth in car use.

Comments on Overall Performance of Different Options

Option A provides a more balanced approach, which includes economic benefits and whilst there would be environmental disadvantages these would be to a lesser extent. Option C scores more positively as it would minimise environmental impacts. However, C could stifle development and restrict economic regeneration. Whilst Option B would have short-term benefits for access, in the long term this could potentially cause more severe problems as the spare capacity fills up.

Further Issues to Consider/ Measures which could Mitigate Negative Effects of the Policy

A balanced approach is required, and any new roads would need to be carefully justified. Negative impacts would need to be dealt with through demand management policies. The policy provides a balance; recognising that some new roads/ improvements may be required but that this will need to be combined with demand management measures, improvements to the existing network, and a holistic view which ensures that overall, capacity will not be significantly increased (issues which are covered in other options e.g. T3, T4, T11.)

STRATEGY

The sustainability appraisals below relate to broad strategic choices which were considered at the emerging options stage, for how Sheffield should develop. These options have not been taken forwards as stand alone policies, but run as themes throughout Core Strategy policies. For further detail see the Strategy Background Report.

OPTIONS SUMMARY SHEET

Issue SP1: What does it mean for the Sheffield Development Framework to be 'a successful distinctive city of European significance, with opportunities for all'?

Options

A Aspire beyond what is needed to serve the immediate city region and become a stronger player on the national and international stage – land-use policy and design principles geared to maximising competitiveness in a European market. Major focus on increasing capacity and potential of city centre and developing its image accordingly.

B Core city for city region – seeking to serve the city region effectively and achieve European significance as a part of the Northern Way network of core cities. Shared emphasis on transforming city centre and neighbourhoods.

C Develop a sustainable community of neighbourhoods transformed by the growth of locally rooted small-scale enterprise. Priority to investing in and improving the neighbourhoods.

Sustainability Objective	A	B	C	Comments
1. A strong economy with good job opportunities available to the whole community	✓✓	✓✓	0	Growth from C may be rather long-term; probably less growth in total, may not provide the jobs needed in total
2. Education and training opportunities which build the skills and capacity of the population	✓	✓	✓	Implicit consequence of all options but specific outcomes would vary

Sustainability Objective	A	B	C	Comments
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	X	✓	✓✓	Not directly covered by option as expressed. Option A could lead to neighbourhoods being passed over. The more qualified approach to major growth in Option B is matched by more focus on neighbourhoods as well as the city centre. Option C would offer direct benefits at the neighbourhood level
4. Conditions and services which engender good health	0	0	✓	Not directly covered by option as expressed but C, if successful, could mean less vehicular travel, pollution, noise and stress
5. Safety and security for people and property	0	0	0	Not directly covered by option as expressed
6. Culture, leisure and recreation facilities available to all	✓	✓	✓	A/B - May not always give rise to locations accessible to all, although the City Centre is highly accessible C - More likely to provide local facilities, albeit a smaller range.
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	✓	✓	✓	Concentration likely to follow from A and B, causing more travel overall but allowing more by public transport. Dispersal in C could reduce need to travel, and increase walking, but if not would lead to more car travel as the destinations would be less readily served by public transport.
8. An efficient transport network which maximises access and minimises detrimental impacts	X	✓	X	A – likely to overload the transport network through large-scale growth B – realistic level of growth, allows for a boost to public transport C – likely to result in public transport not being viable due to significant dispersal
9. Efficient use of land which makes good use of previously developed sites and buildings	✓/X	✓	✓	Indirect benefits. A/B - Will add value that would make brownfield development more viable but may lead to pressure for use of greenfield sites, especially A. C - Would probably benefit older areas more but overall

Sustainability Objective	A	B	C	Comments
				demand might be less.
10. A quality built environment	✓/X	✓/X	✓	A/B - Would attract the investment that could lead to quality but large-scale development could encourage more quantity than quality of building. C - Conflicts are likely to be less.
11. Historic environment protected and enhanced	✓/X	✓	✓	A - Would place more pressure on redevelopment but might also fund conservation. B and more particularly C might mean less pressure for replacement of older buildings
12. Quality natural landscapes maintained and enhanced	X	0	0	Natural environment might be more vulnerable with Option A, though developers may underwrite conservation where there are benefits for business etc.
13. Wildlife and important geological sites conserved	0	0	0	Indirect impacts small
14. Soil resources conserved	0	0	0	Indirect impacts small
15. Water resources protected and enhanced	0	0	0	Indirect impacts small
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	Depends how the development is designed and what mitigating measures are included.
17. Minimal risk to human life and property from flooding	0	0	0	No direct impacts overall
18. Prudent and efficient use of energy and mineral resources	0	0	0	No direct impacts overall
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	No direct impacts overall
20. Efficient use of physical infrastructure	0	0	0	

Comments on Overall Performance of Different Options

The options are very broad and the outcomes would depend on how they are applied. There is no track record for strategic application of the more community-based option and it is a matter of conjecture how far it could meet the long-term need for jobs. But high quantitative growth could be destructive if it is not matched by high qualitative standards and that goes for all spatial patterns. On purely sustainability grounds the case is strongest for the locally based Option C but uncertainties about its ability to deliver the jobs that are needed suggest looking to Option B and mitigating measures.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Particular Options

Design, respect for natural environment and using natural environment as an economic asset could all mitigate possible harmful impacts of higher growth options. This will be covered by other policies.

OPTIONS SUMMARY SHEET

Issue SP2: Promote and plan for greater mobility or encourage greater self-containment of communities?

Options

A Plan for increased mobility by all modes of travel

B Plan for more self-contained communities

C Plan for increased mobility by through improved public transport

Sustainability Objective	A	B	C	Comments
1. A strong economy with good job opportunities available to the whole community	✓✓	0	✓✓	High mobility seen by economists as vital for growth but the more localised self-containment option would still allow some, if on a more modest scale and of a different character. High mobility good for attracting jobs and people getting to them. Greater local self-containment would mean more limited choice of accessible jobs and lower accessibility of dispersed alternatives.
2. Education and training opportunities which build the skills and capacity of the population	✓/X	✓/X	✓/X	Training etc for skills and specialisms will require mobility to central locations; schools need to be provided on a more local basis
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	0	0	

Sustainability Objective	A	B	C	Comments
4. Conditions and services which engender good health	0	✓	0	B – likely to result in more walking
5. Safety and security for people and property	X	✓	X	Mobility may promote anonymity; stronger identification with local community preferable for security.
6. Good cultural, leisure and recreation facilities available to all	✓✓	✓	✓✓	High mobility good for getting to the full range of facilities. Greater local self-containment would mean more limited choice of accessible facilities and lower accessibility of more dispersed alternatives
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	XX	✓/X	✓	A - High mobility contrary to this objective but impacts could be offset by a major contribution from public transport. B – Less need to travel, but dispersal harmful to public transport viability. C – Promotes sustainable travel.
8. An efficient transport network which maximises access and minimises detrimental impacts	X	X	✓✓	Different transport strategies would be needed by each of the two options. High mobility would create scale economies for public transport but if investment in public transport is low, people will use cars instead and create congestion. High self-containment , if successful, would allow access with lower investment but would mean a less efficient public transport system for those who need to travel further afield. The public transport emphasis would be the most efficient.
9. Efficient use of land which makes good use of previously developed sites and buildings	0	0	0	No direct effects

Sustainability Objective	A	B	C	Comments
10. A quality built environment	XX	✓	X	Additional infrastructure and traffic could have a harmful effect on the environment; the lower levels of movement associated with greater self-containment would be beneficial. The public transport option with high mobility would reduce some of the possible impacts.
11. Historic environment protected and enhanced	0	0	0	
12. Quality natural landscapes maintained and enhanced	0	0	0	
13. Wildlife and important geological sites conserved	0	0	0	No significant direct impacts.
14. Soil resources conserved	0	0	0	No significant direct impacts.
15. Water resources protected and enhanced 16.	0	0	0	No significant direct impacts.
17. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	XX	✓✓	✓/X	Mobility will tend to increase air pollution levels – a problem that is spreading from hotspots more widely across the city. Impact of C will depend on the take-up of improved public transport.
18. Minimal risk to human life and property from flooding	0	0	0	No significant direct impacts.
19. Prudent and efficient use of energy and mineral resources	0	0	0	
20. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	
21. Efficient use of physical infrastructure	0	0	0	No significant direct impacts – transport implications not included here.

Comments on Overall Performance of Different Options

The high mobility option is shown to have some serious impacts. But it will be necessary to secure the high levels of employment and economic transformation the City aspires to. But given that low mobility could contribute to increased unemployment, we may have to look to mitigating action. Major investment in public transport to secure mobility in the most sustainable way will be crucial.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Particular Options

If high mobility is pursued, then action to promote sustainable transport should be built into other policies. The appraisal assumes that higher mobility and not just congestion is achieved in practice. Implications for congestion will need investigation in relation to specific areas and proposals.

OPTIONS SUMMARY SHEET

Issue SP3: Plan for a more spacious or more compact city?

Options

A Spacious development.

B Compact development.

C Compact development in and around centres and along tram and high-frequency bus routes but not suburban areas.

Sustainability Objective	A	B	C	Comments
1. A strong economy with good job opportunities available to the whole community	0	0	0	No significant impacts as issue is overall density than concentration in centres.
2. Education and training opportunities which build the skills and capacity of the population	0	0	0	
3. Decent housing available to everyone (including vulnerable people and disadvantaged groups)	0	✓	✓/X	Higher density could mean more vibrant community life and support a wider range of community services, but relative significance not tested. Lower density might maintain existing character.
4. Conditions and services which engender good health	✓	X	✓/X	Higher density would mean more noise, pollution etc
1. Safety and security for people and property 2.	0	0	0	Depends on design more than density
6. Good cultural, leisure and recreation facilities available to all	0	0	0	

Sustainability Objective	A	B	C	Comments
7. Land use patterns that minimise the need to travel or which promote the use of sustainable forms of transport	X	✓	✓	More compact city requires less travel, and maximises opportunities for using public transport
8. An efficient transport network which maximises access and minimises detrimental impacts	X	✓	✓	Compactness generally more supportive, until it gives rise to congestion. Spacious development is not easily serviced by public transport.
9. Efficient use of land which makes good use of previously developed sites and buildings	X	✓	✓	Higher density could make good use of heritage industrial buildings and may make brownfield development more viable.
10. A quality built environment	✓	✓/X	✓	In most areas low density provides the higher quality environment though there will be exceptions where high density makes for a more exciting townscape.
11. Historic environment protected and enhanced	✓	X	✓/X	Cultural heritage tends to be lower density and high density could be more threatening to buildings and their settings.
12. Quality natural landscapes maintained and enhanced	✓/X	✓/X	✓/X	The low density option safeguards natural features within the built-up area and threatens countryside at the urban fringe; the more compact option has the opposite effect.
13. Wildlife and important geological sites conserved	✓	X	✓/X	Even if the spacious option means incursions into countryside the lower density of development would have a more favourable effect on biodiversity and geological sites.
14. Soil resources conserved	0	0	0	
15. Water resources protected and enhanced	0	0	0	
16. Air pollution and greenhouse gas emissions minimised and a managed response to the effects of climate change	0	0	0	Overall greenhouse gas emissions are a function of total development but that would be common to all three options.
17. Minimal risk to human life and property from flooding	✓	X	✓/X	Density affects intensity of run-off.
18 Prudent and efficient use of energy and mineral resources	0	0	0	

Sustainability Objective	A	B	C	Comments
19. Minimal production of waste and the reuse, recycling and recovery of waste maximised	0	0	0	Probably more dependent on other aspects of design.
20. Efficient use of physical infrastructure	✓/X	✓/X	✓/X	High density could be more efficient but may place excessive demands on infrastructure that is near to capacity .

Comments on Overall Performance of Different Options

Both extremes have serious defects in terms of sustainability objectives. This suggests using a hybrid option with high densities where the balance of advantage occurs and likewise for low density. Including both the strengths and weaknesses of the more extreme options it tends to encourage high density where it is appropriate leaving other areas relatively safeguarded.

Further Issues to Consider/Measures which could Mitigate Negative Effects of Particular Options

Compactness could become counter productive once it gives rise to congestion and overloading of infrastructure and services – limits need to be set