Gloucestershire COUNTY COUNCIL

Minerals & Waste Core Strategies

Joint Technical Evidence Paper

WCS-MCS-1

Transport

Living Draft

January 2008

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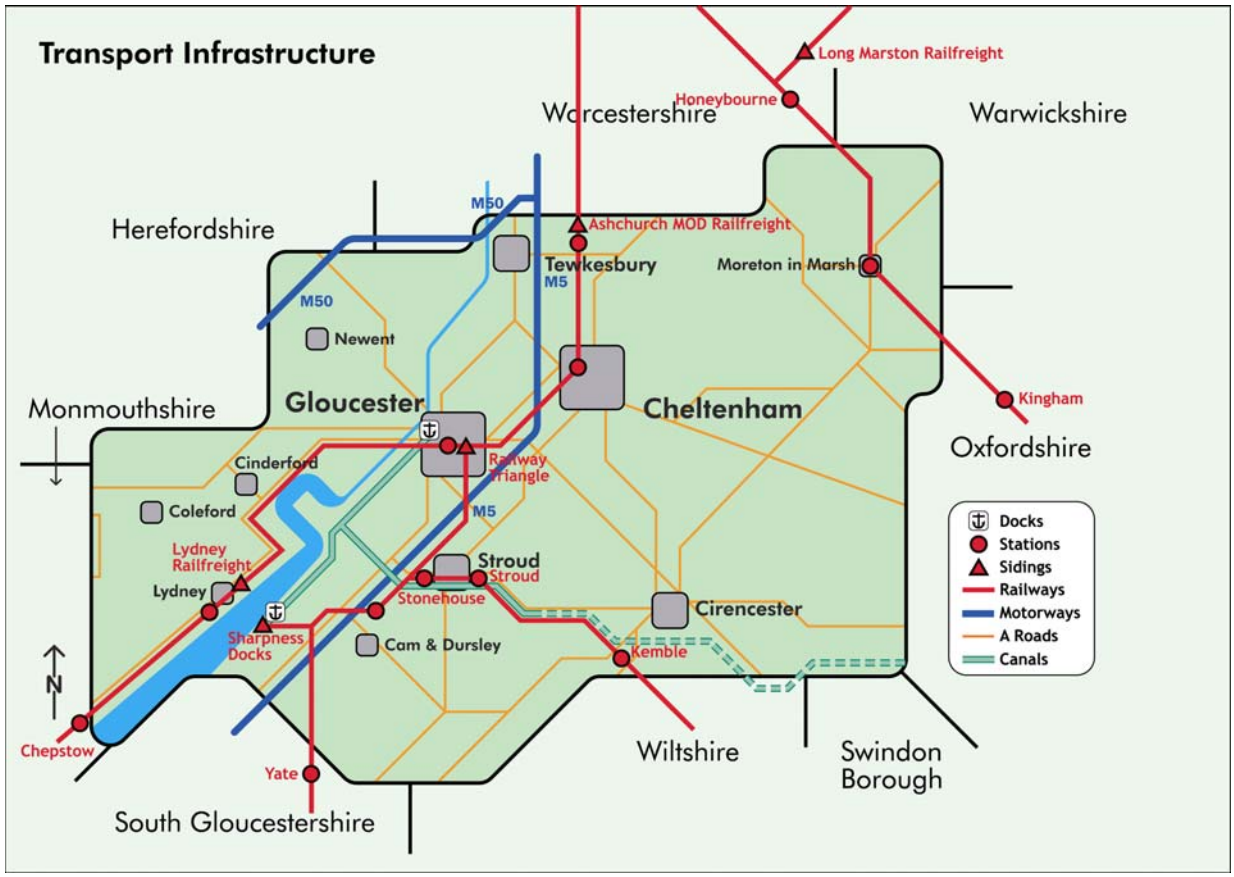
Section 1
Introduction

1. This report supports Gloucestershire's Minerals and Waste Core Strategies and is part of the evidence base. The purpose of this report is to consider, and present evidence related to current minerals and waste related transport issues in Gloucestershire. Thus the main issues relate to levels of Heavy Goods Vehicle (HGV) traffic and the potential for the safeguarding, development and use of other more sustainable modes of transport such as rail and water.

2. More general transport issues such as congestion and the use of public transport are only briefly considered but more detail on these matters can be found in the most up-to-date Gloucestershire Local Transport Plan (LTP2). Available at the following web address: http://www.gloucestershire.gov.uk/index.cfm?articleid=10987

3. Figure 1 (below) illustrates schematically the transport network that operates in and around Gloucestershire.


Transport Infrastructure
Long Marston Railfreight
Honeybourne
Worcestershire
Warwickshire
Herefordshire
M50
Ashchurch MOD Railfreight
Tewkesbury
M5
Moreton in Marsh
M50
Newent
Monmouthshire
Gloucester
Cheltenham
Kingham
Oxfordshire
Cinderford
Railway Triangle
Coleford
M5
Lydney Railfreight
Lydney
Stroud
Stroud
Stonehouse
Cirencester
Sharpness Docks
Cam & Dursley
Kemble
N
Chepstow
Yate
Wiltshire
Swindon Borough
South Gloucestershire
Docks
Stations
Sidings
Railways
Motorways
A Roads
Canals

Section 2
Gloucestershire's Transport Network

A Gloucestershire road

Road

3. Gloucestershire County Council is responsible for the maintenance of 5167km of County roads with a further 259km being maintained by the Highways Agency.[1]

4. The M5 Motorway, which follows a north-south route through the County and runs roughly parallel to the River Severn, acts as the most prominent highway in Gloucestershire. It links the county with Bristol (to the South) and Birmingham (to the north). There are also a number of strategically important roads that cross Gloucestershire. Examples of these include:

- The A40, which runs east-west through the centre of the County and provides a key highway link to London and the south east;
- The A417 & A419 that follows a south east - north west route from Swindon / the M4 Motorway (in Wiltshire) to Gloucester;
- The A48 that runs parallel to the River Severn on the opposing side of the river to the M5 Motorway.
- The M50 Motorway also lies on the northern boundary of the County.

Areas of particular Road Congestion / High Traffic Flows by District[2]

■ Gloucester

5. Within Gloucester, peak hour congestion is worst on the A430 Bristol Road, A40 Northern Bypass and the section of the A40 west of the city, largely due to commuter and school run traffic. The volume of traffic on these roads exceeds the junction capacity during the peak periods, leading to congestion and queuing traffic. The consequence is that traffic is growing in the inter-peak as people re-time their trips to avoid congestion. On a number of routes the practical capacity of those roads is being approached throughout the inter-peak. This means that there will be increasing journey time unreliability throughout the day, which is a particular problem for bus operators.

■ Cheltenham

6. In Cheltenham, high traffic flows are found throughout the town, especially on the A40 trunk road, with approximately 31,500 vehicles travelling along the A40 Gloucester Road each weekday. Gloucester and Cheltenham both suffer episodes of severe congestion when

[1] Gloucestershire LTP2, Section 2, Page 39

[2] Gloucestershire LTP2, Section 2, Pg 65

accidents occur on the M5 and the A40, and traffic diverts through the urban areas.

■ Stroud

7. Congestion also occurs in Stroud, with the worst delays being found on the A46 Merrywalks, which provides a key north to south link through the town centre. This single carriageway with mini-roundabouts carries around 24,000 vehicles each weekday. Congestion is also an issue on the A419 between Stonehouse and the M5, with flows of over 22,000 each weekday, 1700 during the morning peak. Census data shows 6% (3,143) of the working population of Stroud district travel to Bristol & Bath for work. As there are poor rail links to Bristol the majority of these trips are made by car.

■ Tewkesbury

8. The A38 High Street in Tewkesbury is often congested in the peak hours, as it is both the main shopping street and the main route for much traffic travelling through the town. Stationary queuing traffic is causing air quality problems due to the "canyon" effect of buildings on both sides of the street. Traffic also tails back along the A438 through Newtown from the junction with the M5. This causes delays for motorists accessing the M5, lorries accessing the Ashchurch industrial estate, rail passengers utilising Ashchurch station and parents, children and staff accessing the four schools along the route. During the morning peak period (7am to 10am) more than 4,000 travel this short stretch of road.

■ Cotswold

9. Traffic in the Cotswolds has continued to grow over the last 5 years, but the rate of growth is less than the county average and is the second lowest after Cheltenham. The Cotswolds has high levels of through traffic in its market towns and villages, particularly those along the A436, A429, A417, B4104 and B4070. Serious congestion occurs on the single carriageway section of the A417/A419 between Cowley Roundabout and Brockworth Bypass. This primary route is managed by Route Management Services on behalf of the Highways Agency.

■ Forest of Dean

10. The Forest has the largest growth in average daily traffic volumes of all districts. There are no existing or anticipated congestion problems within the Forest itself, although the congestion to the west of Gloucester on the A40/A48 is a major issue for residents of this area. The road with the fastest growing traffic levels is the A48 south into Chepstow; discussions with Monmouthshire have revealed a common concern. The pattern of HGV movements in the area show a different picture, with a measurable decline in lorry traffic on some routes, most notably the B4221, B4215, A40 and the A48, since 2000. However, it is noted that some of this decline is due to an increase in the size of lorries used. It is the size of vehicles, in some cases, that is giving rise to public concern.

Gloucestershire Advisory Freight Route Map

11. The County Council recognises the local and national economic need for a transport system that can promote the efficient movement of freight. Lorry traffic can, however, have a serious environmental impact, and the Council has already adopted a lorry strategy that seeks to route lorries onto suitable roads, avoiding sensitive areas. A review of the capability of those parts of the network that are single carriageway will be undertaken to assess their

viability for long haul freight traffic. It is anticipated that this may lead to a reduction in the network. The County Council's main aim for freight distribution therefore is to improve its efficiency while minimising its environmental impact.

12. The County Council's adopted lorry route strategy has been produced through consultation and partnership with freight organisations, local councils and interest groups. The network comprises of three levels: 'roads for long-distance journeys; 'roads for local journeys' and 'roads for access and diversionary use only'. The existing strategy combines measures such as signing and the provision of information and facilities to encourage lorries to use appropriate high-quality routes, with measures to discourage or prevent them from using unsuitable roads. The effective enforcement of weight and width restrictions and other measures to control lorry movements is essential to the strategy's success.[3]

13. In addition, the County Council's Advisory Freight Route Map has been published and is available for transport operators to identify the most suitable routes for travel around and through the county.

14. The first Gloucestershire Local Transport Plan (LTP) proposed the establishment of a Freight Quality Partnership (FQP). A countywide FQP now exists and has members drawn from the haulage and rail freight industries, business, community and environmental groups. It has set up a number of member working groups to look at specific issues of relevance to freight. One of the outcomes of this work is the identification of a wide range of concerns from communities on lorry routes including noise, vibrations, intimidation and safety. A towns and villages working group has been set up to consider these issues specifically, and the levels of interest and concern support the need for our strategy to look at how to reduce the impact of transport, particularly heavy goods vehicles, on communities and the environment. Details of the work of the FQP and progress in tackling freight issues can be found in Appendix H: Lorry Management Strategy.

Water Bourne Transport

16. In terms of waterbourne transport potential, Sharpness Docks on the Bristol Channel provides extensive cargo-handling facilities and port-related services accommodating vessels up to 6,000 tonnes. It handles cargoes for bulking, minerals and timbers. Recently the Docks have landed cargoes of cement from northern Spain and fertilizer from Germany and shipped recycled metals to southern-west France. Two working dry docks continue to provide ship repair and refit facilities with access to the sea through the Gloucester and Sharpness Canal. The river and the Gloucester and Sharpness canal provide Gloucestershire with the possibility to develop sustainable waterborne transport.

17. Additional wharfage potential may also exist on the opposing the banks of the River Severn at Lydney Docks in the Forest of Dean. This site was restored in 2005 through regeneration project funded by the Lottery Heritage Fund and Environment Agency.

[3] Source: Gloucestershire LTP2, Section 2, Pg 73

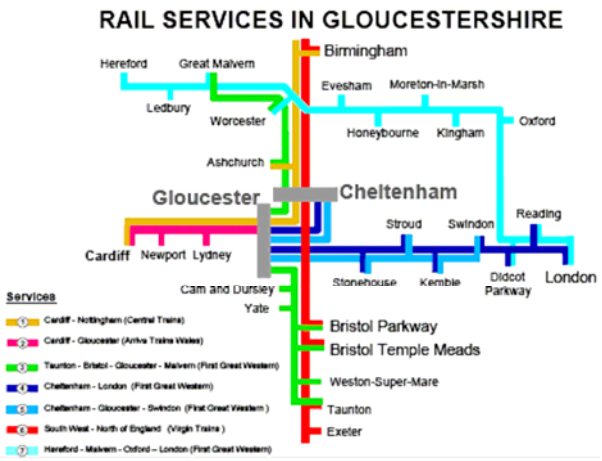
18. Currently, there is no direct rail access to Sharpness docks. There are nearby rail sidings for transporting nuclear traffic to Berkeley Nuclear Power Station, which is now decommissioned, and Oldbury power stations. This rail link may cease to function in the future and consequently requires protection.

19. There is a scheme to improve rail links to the docks. Funds have been allocated by GCC and Sharpness Docks and funds have been reallocated upon the signing of a rail freight contract. The approximate timescale for implementation is two months after contract signing.

20. Sharpness docks potentially has an advantage over larger docks such as Bristol, as it is cheaper for smaller operators who may be put off using larger, more expensive docks. It has the potential to service specific local needs including the transportation of minerals and waste in Gloucestershire.

Rail

15. Rail has a role to play in helping to curtail the problem of the congested road system and reducing transport related greenhouse gas emissions. In Gloucestershire rail offers an alternative to the car for local, regional, national and near European travel. Gloucestershire is located on east-west and north-south rail routes, which provide the county with key links to London, Birmingham, Cardiff, the South West, North of England and Scotland. (See below).



Section 3
Broad Policy Considerations

'Securing the Future' – The UK Government's Sustainability Strategy

21. This document outlines the Government's principles for achieving sustainable development. Chapter 4, 'Confronting the Greatest Threat: Climate Change and Energy' outlines that the Government aims to move towards a low carbon economy through reducing carbon dioxide emissions by 60% by 2050 and by achieving its Kyoto Protocol target of 12.5% below base year levels by 2008-12[4].

22. In terms of tackling emissions, transport is highlighted as one of six key problem sectors. Transport contributes to approximately a quarter of total UK carbon dioxide emissions[5]. Section (iii) 'Transport' of Chapter 4, sets out of how the Government intends to reduce emissions from road transport, for example, by making 10% of all its vehicles low carbon by 2012.

Supplement to Planning Policy Statement 1: Planning and Climate Change

23. This document sets out how spatial planning, in providing for the new homes, jobs and infrastructure needed by communities, can help shape places that produce lower carbon emissions and are resilient to some of the impacts of climate change.

24. In terms of spatial planning practice, the PPS advises RPBs to draw on technical expertise for developing data on climate change in the region. This information should then be integrated into the strategy and policies of the emerging RSS.

25. The PPS states that spatial strategies should consider sustainable transport for moving freight, in delivering patterns of urban growth. During the decision making process, climate change should be incorporated into spatial planning subjects such as transport.

26. It further states that in identifying sites for development, planning authorities should consider the suitability of sites in terms of the potential for opportunities to service the site through sustainable transport. When assessing the environmental performance of proposed development, consideration should be given to creating and securing opportunities for sustainable transport in accordance with PPG13.

27. In terms of transport considerations, the Analysis Report of Consultation Responses of the draft document highlighted that the PPS needed to give greater consideration to:

- The importance of transport emissions when designating sites and assessing development proposals;

- The need for a focus on integrating information technology into new development to reduce transport demand;

- The potential cost saving of transporting freight or bulk material by water.

[4] From Securing the Future – UK Government's Sustainability Strategy (March 2005), Pages 2-3.
[5] From Securing the Future – UK Government's Sustainability Strategy (March 2005), Page 84.

Planning Policy Guidance Note 13: Planning and Transport (PPG13)

28. The aim of PPG13 is to integrate planning and transport at all levels and to promote more sustainable choices for moving freight. To achieve this, local authorities should protect sites and routes which could be critical in developing infrastructure to widen transport choices for freight movements.

29. Planning can also help to promote sustainable distribution of road freight transport. Where viable, the distribution of freight by rail and water should be encouraged to reduce the environmental impacts of transporting minerals by road.

Draft Regional Spatial Strategy (RSS) Policy TR7

30. This policy states:
"Proposals at all of the region's ports which facilitate the development of markets for freight and passenger services are supported, particularly where they include measures, such as improved rail access, in order to reduce the use of road based haulage. LDDs should facilitate the growth of ports to provide (where appropriate):
• *Improved passenger facilities*
• *New recreational passenger services*
• *Facilities to support the fishing industry*
• *Land for port growth, marine sectors and related uses*
• *Rail connections*
• *Container and other freight facilities"*[6]

[6] Draft RSS, Page 120

Draft Regional Spatial Strategy (RSS) Policy TR12: Regional Freight Map

31. This policy states:
"The strategic network (national and regional routes) will be promoted for use by HGV vehicles rather than county routes. Local authorities, through their LTPs, will reflect the regional hierarchy of routes identified in the Regional Freight Map and give priority to strategic routes in determining allocations for road maintenance."[7] See Appendix 1 of this report.

Gloucestershire Local Transport Plan 2 (2006-2011) (LTP2)

Vision

32. The vision for LTP2 is as follows:
"To enable people in Gloucestershire to enjoy real choices of ways of travel where there are viable alternatives to the car and be provided with high quality access to services on a safe and efficient transport network"

Objectives

33. LTP2 has six objectives:

1. Maintenance and Improvement
• Make best use of the network.
• Address the maintenance backlog.
• Improve the network to meet needs of all users.

2. Economy and Integration
• Provide a transport system that supports regeneration and sustainable growth.

[7] Draft RSS, Page 125

3. Safety
• To reduce all road casualties including and especially killed and seriously injured.
• Improve community safety.

4. Accessibility
• Enable high quality access to services by all forms of transport.
• To provide financially sustainable access to services for those without cars, particularly in rural areas.
• To meet the needs of people with disabilities.

5. Real Choices and Awareness
Make best use of existing infrastructure.
• Provision of new and improvements to existing infrastructure.
• Facilitate use of alternatives to the car.

6. Environment
• Improve air quality throughout the county
• Reduce the impact of road transport on communities and the environment.
The LPT2 aims to reduce the number of large HGVs on 15 key rural routes in Gloucestershire, so the average number of HGVs is less than 1%. The following are designed to achieve this target.

Advisory Freight Route Map

34. The Advisory Freight Route Map identifies principal routes for HGVs and shows through routes, routes within the county and roads for accessing major freight generators, such as quarries. The map shown in LTP2 is advisory, not legally binding.

35. The Freight Quality Partnership (FQP) deals with ongoing feedback on the Advisory Freight Route Map. The FQP brings together organisations such as freight operators, council bodies and members of the community. It acts as a forum for exchanging ideas, concerns and developing solutions for freight transport issues.

Reducing the Impact of Freight Upon Communities

36. In the Forest of Dean, LPT2 seeks to reduce the adverse effect of quarry lorries upon communities by implementing maintenance, safety and traffic management schemes, especially on the A4136. A signing strategy will be developed to encourage long distance HGV movements to use the M5/M50 over local routes.

Encouraging Alternatives to Road Freight

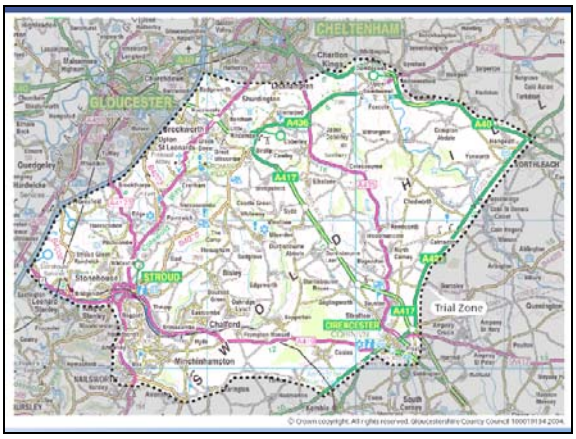
37. LTP2 states that the County Council should aim to put freight onto rail and coastal shipping, and that rail freight sites and wharves should be protected.

Restricting HGV Traffic through the Cotswold AONB Trial Zone

38. (Note this section of the report relies heavily on information that came out of a planning unit / transport planning evidence gathering meeting on 21.08.07. Reference in LTP2, Appendix H, Para 2.2.1 – the A40 and A417 are excluded from restrictions).

39. The Cotswold AONB Trial Zone has been established (see below) to place restrictions on HGV traffic in the AONB. It is proposed to place a 7.5 tonne restriction on all unclassified and 'C' class roads and several 'B' roads. The scheme plans to reduce deliveries and pick-ups to certain times of the day, with the aim of traffic avoiding sensitive areas. Weight restrictions on

HGVs within AONBs will have an impact on reducing large HGV traffic.



Cotswold AONB Trial Zone. Source GCC

40. The scheme came about through political pressure to address concerns over the impact of HGVs. Council members made an election pledge to address the HGV issue. Two years ago, the County's intention was declared to restrict HGV access and introduce a night time curfew in the Cotswolds AONB. This caused major concern with operators and industry. Since, it has been indicated that the County would pursue an approach that will take into account community and environmental concerns and the views of the haulage industry and freight generators. The County Council would look at the introduction of lorry management zones, in line with the approach adopted by Leicestershire County Council (where approximately 90% of land is covered by Lorry Management Zones). The introduction of the first trial zone in Gloucestershire is now being progressed.

41. The aim of the scheme is to look at Lorry Management in the AONB with a view to:
- Identifying through routes
- Identifying routes for local journeys
- Identifying routes used for gaining access to freight generators for loading/unloading material. This is important for quarries.

42. On all other roads, HGVs may be restricted with environmental weight restrictions to protect the environment. It is proposed to introduce area wide weight restrictions, which cover local roads not designated for HGV movements, i.e. a whole area of roads will be covered by one weight limit.

43. There will be exemptions granted, such as for fuel deliveries and multi-drop deliveries.

44. There are four phases in creating a Lorry Management Zone:

- Information gathering (now completed)

- Consultation with freight generators, transport operators, community to identify transport needs, issues and concerns (now completed).
- Looking at the statistics (in progress).
- Developing proposals. By the end of Spring 2008, the following will have been identified:

a) Options, i.e. where to place restrictions and exceptions so not to restrict local business;
b) Cost implications – highway improvement costs; cost of weight restriction orders and legal implications. Members will review options to see if scheme is viable; whether it is value for money, or affordable; and if so, when to commence with the scheme.

45. Even if the scheme does not progress, the principles could be applied to mineral and waste operators. If the scheme proves a success, there is scope to extend the Lorry Management Zones to other areas, such as the Cotswold Water Park.

46. In taking account of future development, there is a need to establish transport needs and jointly with Gloucestershire Highways, County Council Minerals and DC, transport operators & generator, identify the most appropriate routes for gaining access to loading and unloading.

47. Determination of routes should take account of road alignment and conditions, communities and other environmental sensitivities (villages, settlements, Cotswold AONB). Reference should be made of the likely transport carbon footprint.

48. In determining a route, account should be taken of any remedial works or highway improvement that may be requested and where new development applications are made the option of obtaining a S106 funding for this work should be considered.

49. The development of specific HGV routes has in the past been shown to help reduce overall highway maintenance cost (focusing investment and reducing wear and tear on other roads.

Section 4
Transportation & Minerals

■ Background

50. Mineral transportation in Gloucestershire is largely dominated by road haulage. All existing active quarries are linked to their markets by the road network. Minerals can only be worked where they occur and this generally means that there can be very limited scope to proactively move away from road transport.

51. Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the amenity of the local community and the environment.

The Transportation of Minerals by Road

Lorry at wheel wash – Clearwell Quarry

52. Nationally, most minerals are delivered by road and all of those extracted in Gloucestershire are presently transported by this mode. For the most part the distribution of aggregate minerals is local and diverse. Due to both the bulky nature and economies of scale, the market area of road transport tends to be limited in respect to the quality and / or location of the strategic highway network. However this will be dependent to some extent on the location of other sources of supply to any given quarry. For this reason importation of significant quantities of minerals into Gloucestershire is also made by road.

53. Clearly HGV transporting minerals contribute to increasingly congested roads in the County (as described in Section 2.) This is a serious amenity issue. Section 2 also considers the various schemes and measures (mainly through the Local Transport Plan process that have, or are currently being designed to address these problems such as:

- The Advisory Freight Route Map

- The Cotswold AONB Trial Zone scheme

54. The adopted Gloucestershire MLP states that the main aspects of transporting minerals by road are the impacts:

1. within the quarry itself;

2. on the local road network to the quarry;

3. on the wider, strategic road network.

55. The Mineral Planning Authority currently requires operators to submit a detailed transport appraisal for proposed operations and such

appraisals should include a full examination of the alternatives to road movement. Particular consideration should be given to routes used, the number of properties affected and the overall suitability of the highway network.

56. The detailed transport appraisal should also consider the following:
1. the mode of transportation within the minerals site [including conveyors and pipelines where appropriate];
2. the mode of transportation from the minerals site to the market;
3. scope for and environmental implications of reinstating rail head or restoring canal lines or use of rivers, wherever appropriate;
4. the suitability of the local road network;
5. the suitability of the wider highway network for mineral transportation;
6. the likely impact of mineral transportation on the environment and community;
7. where the proposal is for an extension to or an increase in production at an existing site, an analysis of the cumulative impact of the mineral transportation; and
8. scope and measures to mitigate the impact of traffic generated by the proposal.[8]

57. There has been a trend nationally and within Gloucestershire of increasing numbers of HGVs over 28 tonnes, in combination with a decline in smaller lorries. In Gloucestershire, there was a 39.1% increase between 1994 and 2005[9], compared with 23.6% nationally[10]. This could be due to using larger lorries being used, which would correspond with the decline in smaller HGV traffic. A quarry operator stated that there has been a trend of lorry sizes increasing in the 1970's and 1980's to 16 and 20 tonnes. Today articulated lorries are available that can carry 29 tonnes. These though are too big for local deliveries and are only suitable for transporting large tonnages long distances to fixed outlets and concrete plants, for example.

58. In the long-term, mineral resources in Forest of Dean may start to diminish by the end of MCS period in 2026. This will create a need to find additional construction material for use in Gloucestershire, for example, from South Gloucestershire or North Somerset. This would create a move of mineral freight traffic away from the Forest of Dean's roads, such as the A4136 to the M5 motorway.

59. There is also a need to plan for impacts of future major national projects such as the 2012 Olympics, which may have an impact on quarries in Forest of Dean.

[8] Gloucestershire MLP, Pages 30-31.
[9] Gloucestershire County Council, 2006: From County Lorry Monitoring 1994-2005 traffic flows. Figures are calculated from annual traffic counts by Transport Monitoring Team, at 13 locations across Gloucestershire.
[10] Figures calculated from Transport Statistics Great Britain 2005, Department for Transport.

The Transportation of Minerals by Rail

Rail freight between Hailes and Winchcombe on the Gloucestershire Warwickshire Railway

60. Rail is generally used for the transportation of aggregates over longer distances, and this has clear environmental benefits. However, these benefits are only accrued between the production point and the receiving depot, the environmental impact is actually transferred to the export areas. There may be environmental disadvantages encountered in the production areas. A rail link to a quarry demands the availability of a high level of reserves and production capacity. The importation of minerals into the County by rail is currently negligible as there are no current rail linked processing points. Also there are currently no rail linked quarries and no substantial amount of mineral has been moved from Gloucestershire by rail since the 1960s. There are few rail linked quarries in the South West. Nearby rail linked quarries such as Tytherington in South Gloucestershire and a number of quarries in the East Midlands move mineral to London and the South East.

The Transportation of Minerals by Water

61. The majority of canal routes in Gloucestershire are relics of the 18th and 19th Century and they are not well placed to serve the minerals industry. On most canals the potential for significant commercial transportation is limited. The Gloucester and Sharpness Canal is the exception, in terms of accommodating commercial water borne traffic, but like the rail network is not coincident with sites of mineral extraction. However there is the potential for receiving minerals extracted from outside of Gloucestershire, such as marine dredged sands and gravels – see picture above.

62. Additionally, Lydney Docks and Sharpness Docks on the Severn Estuary have the potential for the importation and exportation of minerals.

Transportation by barge bringing material from Ryall Quarry in Worcestershire to the CEMEX Plant at 2-mile bend near Gloucester

63. Sharpness Docks on the Severn Estuary

(See picture below) represents one of the most notable opportunities for waterborne transport in Gloucestershire. The Docks provide extensive port-related services, cargo-handling facilities and tri-modal transport links (i.e. road, rail and sea / canal). It can also accommodate vessels of up to 6,000 tonnes and handle cargoes such as dry bulks, minerals and timbers. Recently the Docks have landed cargoes of cement from northern Spain and fertilizer from Germany and shipped recycled metals to southern-west France. Additional wharfage potential may also exist on the opposite banks of River Severn at Lydney Docks in the Forest of Dean. This site was restored in 2005 through regeneration project funded by the Lottery Heritage Fund and the Environment Agency.

Sharpness Docks

64. The existing adopted MLP recognises the importance of sustainable mineral transportation and encourages alternative modes of transport to road wherever possible. It also has a safeguarding policy[11] for existing wharfs and railheads. LTP2 (Appendix 4) looks to safeguard wharfage on the Sharpness Canal.

■ Policy Requirements

Minerals Planning Statement 1: Planning and Minerals (MPS1)

65. MPS1 is the overarching planning policy document for all minerals in England. It provides advice and guidance to planning authorities and the minerals industry and it will ensure that the need by society and the economy for minerals is managed in an integrated way against its impact on the environment and communities.

66. MPS1 aims to promote *"the sustainable transport of minerals by rail, sea or inland waterways"* and *"to secure working practices which prevent or reduce as far as possible, impact on the environment and human health arising from the extraction, processing, management or transportation of minerals".*[12]

Section 13 Safeguarding

67. Planning authorities should:

- *"safeguard existing, planned and potential railheads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, particularly coal and aggregates, including recycled, secondary and marine dredged materials"*

[11] This Policy (Policy E21) has not been 'saved' by Secretary of State, but provision to safeguard railheads and wharves will be made in the Minerals Core Strategy.
[12] MPS1, Page 5.

- *safeguard existing, planned and potential sites including rail and water-served, for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material where appropriate, identify future sites for these uses and reflect any such allocations in the LDD of district councils in two-tier planning areas."*

Section 16 Bulk Transportation

68. Planning authorities should:

- *"seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation;*

- *promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water;*

- *safeguard and promote rail links to quarries where there is potential to move minerals by rail."*

Draft Regional Spatial Strategy (RSS)
Policy RE10: Supply of Aggregates and Other Minerals

69. This policy states:
"Mineral Planning Authorities should seek to make provision for the supply of aggregates and other minerals to meet the South West's contribution to national requirements. Mineral Planning Authorities and Local Planning Authorities will identify and collaborate in safeguarding mineral resources of economic importance from sterilisation by other forms of development. In order to promote the delivery and bulk transport of minerals by rail and/or water, existing railheads, wharfage and other handling facilities, will be safeguarded and opportunities for new ones should be identified, where appropriate."[13]

70. Paragraph 7.3.25 states that when identifying new sites for minerals and processing facilities, MPA should seek to limit the distances minerals and their derived products are transported to their point of use. However, Existing and new railhead and wharf facilities should be safeguarded and identified for transportation of minerals by rail and water. Where road is the only viable transport option for minerals, a transport assessment which considers the Regional Freight Map, should be submitted to support applications for quarries.

71. Paragraph 5.6.1 states that mineral extraction is a main contributor to freight traffic in the South West. Policy TR12 refers to the Regional Freight Map. The Regional Freight Map has been designed to ensure freight uses the most suitable routes. National, regional and country routes have been established to ensure sustainable transport movements in the South West. Paragraph 5.6.4 states that development, which may increase the amount of freight movements, should be situated near to suitable rail and water freight facilities.

72. Paragraph 5.6.5 states that existing rail freight flows in the South West are fairly limited and centered on markets such as china clay, stone and coal. The potential for developing rail freight transport in the region is restricted due limitations posed on the existing rail network from the "freight volumes from and to the South

[13] Draft RSS, Page 162.

West" and from the restricted container handling capability.

73. However according to paragraph 5.6.7 there is scope for the development of local facilities. Policy TR13 refers to the identification of locations for rail freight in the South West.

"Sites for rail freight interchange facilities will be identified and safeguarded in LDDs for East Devon, and Plymouth and should be identified in Cornwall and other locations in the region, subject to viability."[14]

The transportation of China Clay 'waste'

74. Paragraph 7.3.32 states that:
"A major source of secondary aggregate in the South West is the sand and the crushed rock (stent) 'waste' arising from China Clay production and reworking of old tips. China clay production generates around nine tonnes of waste for every tonne of clay. Potentially, this is a more sustainable resource than other aggregates however, under current market conditions, transport costs make the exploitation of this resources uneconomic."[15]

75. The Draft RSS states that new transport methods such as shipping and rail, need to be identified if this material is to be utilised further. Mineral Planning Authorities in the South West, and that includes Gloucestershire, should be encouraged to *"identify the scope for supplying China Clay waste to construction markets outside Cornwall and Devon."*[16]

76. Paragraph 5.4.6 identifies specific freight markets of ports in the South West. *"These include China Clay traffic from Par, and Ball Clay movements from Teignmouth and Bideford."* [17] Sharpness docks in Gloucestershire are also highlighted as a port dealing with a range of freight commodities.

77. Section 2.5 of Cornwall County Council's MCS Issues and Options, states that Government policy favours the use of aggregates and aggregate by-products over primary materials. In Cornwall, china clay is the largest potential source of secondary aggregate and is used as concrete sand in building schemes. Paragraph 2.5.18 states that the growth of processing and exporting china clay waste may occur if Par docks are provided with *"the necessary infrastructure to transport more of the processed secondary aggregate by rail* [by installing a new railhead] *and sea to markets in the UK."*

78. China clay waste is not currently transported in Gloucestershire, as it is not economically viable to transport by road and there are infrastructure problems by rail. There is potential to transport china clay waste into Sharpness Docks via sea freight and rail freight if the rail infrastructure is improved.

Gloucestershire Minerals Local Plan (1997 - 2006)

79. The adopted Gloucestershire Minerals Local Plan (MLP) provides the current policy framework for mineral development in Gloucestershire. It was adopted in April 2003 following three draft consultation stages, a Public Local Inquiry in 2000 and subsequent modifications.

[14] Draft RSS, Page 126
[15] Draft RSS, Page 164
[16] *Ibid*
[17] Draft RSS, Page 120

80. Policies related to the transportation of minerals are:

Policy E19
"Proposed mineral development will not be permitted where the method of transporting minerals will give rise to an unacceptable impact on the local environment. Mineral operators must demonstrate, by a detailed transport appraisal, that the safest and least environmentally damaging methods of transporting minerals from extraction/production sites to markets, that are practically achievable, are used."[18]

81. GCC applied to 'save' this policy and the Secretary of State deemed that it should be saved until replaced.

Policy E20
"Mineral development will only be permitted when the provision for vehicle movement within the site, the access to the site, and the condition of the local highway network are such that the traffic movements likely to be generated by the development would not result in unacceptable impact on highway safety, the effective operation of the road network, residential amenity or the local environment. In assessing the likely impact of traffic movements, account will be taken of any highway improvements, traffic management or other mitigating measures which may be provided in association with the development."[19]

[18] Gloucestershire MLP, Page 31
[19] *Ibid*

82. GCC applied to 'save' this policy and the Secretary of State deemed that it should be saved until replaced.

Policy E21
"Existing and disused railhead and wharves will be safeguarded where they have potential for the exportation and importation of minerals and secondary/recycled aggregates."[20]

83. GCC applied to 'save' this policy and the Secretary of State deemed that it should not be saved as it repeats Government guidance in MPS1.

■ Outcomes of Issues & Options (I&O) Consultation on Minerals Core Strategy

84. The MCS I&O consultation took place over an eight week period between the week of the 22nd September 2006 and the 17th November 2006. Issue M10 of the I&O Paper was: *Meeting Objective 8: Encouraging More Sustainable Ways of Transporting Minerals Other Than by Road.*

85. The following is a summary of the standard response form results relating to transportation issues:[21]

[20] Gloucestershire MLP, Page 32
[21] Respondents names are not cited, see the link below for the full Minerals Core Strategy Issues & Options Consultation Response Report: Hhttp://www.gloucestershire.gov.uk/index.cfm?articleid=14094H

• An overwhelming proportion of respondents considered that the existing Minerals Local Plan (MLP) transport policies need revising.

• Respondents also unanimously supported the principle of identifying future site for sustainable transport infrastructure such as railheads and wharfs.

86. Written comments on sustainable minerals transport:

• Alternative transport methods to road are extremely limited in Gloucestershire and virtually all delivery options will need to utilise road at some point in the process.

• Reducing the transport distance by road should be an important element of any future transport policy. This may mean adopting the proximity principles for mineral working.

• There is general support for rail and water transport for minerals but only where it represents the most sustainable approach in terms of the distance and amount of handling (e.g. multi-modal transport can result minerals having to be handled many times on and off rail and water transport via transfer sites from the quarry to development site).

■ Options

87. Sections 1 to 4 of this report have presented a variety of transport related information and evidence, as well as policy requirements and stakeholder views. The following strategic objective (or similar) could be included in the MCS Preferred Options document, drawn from this evidence.

"To reduce the impacts of hauling minerals by road and encourage more sustainable forms of transport including necessary improvements to infrastructure."

88. In terms of a policy option it should look to support sustainable forms of transport such as rail and water ahead of road haulage. Where road transport is the only viable option priority should be given to routes which are 'fit for purpose'

89. This could mean having regard to the Regional Freight Hierarchy, to Gloucestershire's Advisory Freight Route Map and potentially to other schemes through the LTP.

90. There should also be reference in policy to increasing sustainable transport infrastructure and to safeguarding and expanding local capacity for handling minerals.

91. It may also be important for the policy to recognise that if sites have the capacity to transport minerals by sustainable means this will be considered favourably in terms of any site allocation process.

Section 5
Transportation & Waste

■ Background

92. As with minerals, transport is a major issue when considering waste proposals as the generation of significant amounts of HGV road traffic, can and does have negative impacts on the amenity of local communities and the environment.

The Transportation of Waste by Road

Waste collection vehicle

93. The vast majority of waste transported within Gloucestershire is done so by road. This is also the case with imported and exported waste.

The Transportation of Waste by Rail

94. Currently little or no waste is transported by rail within the County despite the fact that the rail network in Gloucestershire contains four trunk lines and rail freight handling depots at Ashchurch, Gloucester, Lydney and Sharpness. (See above diagram of transport infrastructure).

The Transportation of Waste by Water

95. There is some exportation of scrap metals out of Sharpness docks by ship (see picture below) but little or no waste is transported on Gloucestershire's rivers or canal network.

Scrap metal for export at Sharpness Docks

■ Policy Requirements

Planning Policy Statement 10: Planning for Sustainable Waste Management (PPS10)

96. PPS10 states that planning authorities should *"help secure the recovery of disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest*

appropriate installations".[22] It further states that *"waste management …should be considered alongside other spatial planning concerns such as transport…"*[23]

98. In terms of the identifying suitable sites and areas [for new waste management facilities] part of the assessment should be in terms of the *"capacity of existing and potential transport infrastructure to support the sustainable movement of waste, and products arising from resource recovery".*[24] In Annex E it states that in testing the appropriateness of waste sites against the criteria in Paragraph 20, WPAs should have regard to the *"suitability of the road network and the extent to which access would require reliance on roads".*[25]

Planning Policy Statement 10: Planning for Sustainable Waste Management (PPS10) Companion Guide

99. There is no detailed guidance on the specific issue of the transportation of waste within this companion guide. However it does reiterate the thrust of PPS10 by stating that *"Waste management should be considered alongside other spatial planning concerns, such as transport, housing, economic growth, natural resources and regeneration, recognising the positive contribution that waste management can make to the development of sustainable communities, and should be integrated effectively with other strategies including MWMS."*[26]

100. It also states that the quantification of transport distances is the sort of topic that should be looked at through the Sustainability Appraisal (SA) process.

Draft Regional Spatial Strategy (RSS)

101. This section of the evidence paper only deals with the waste specific policies in the Draft RSS. More generic regional transport policies (such as TR7 and TR12) are covered earlier in Section 3.

102. Section 7.4 of the Draft RSS outlines the Region's approach to waste management.

Policy W1 'Provision of Waste Sites'

103. The supporting text of this policy states that *"it is important that proper account is taken of the need for appropriate waste facilities to service places where major development is taking place following the proximity principle in order to reduce emissions from transport."*[27] This reference to 'the proximity principle' is not in accordance with PPS10 which makes clear that planning authorities should *"enable waste to be disposed of in one of the nearest appropriate installations."*[28] Whilst this could be seen as a weakening of the proximity principle, it is important to read it in the wider context of sustainable waste management, i.e. it does not preclude waste travelling further to facilities that can treat it in a more sustainable manner.

Policy W2 'Waste Facilities and the Waste Hierarchy'

104. This policy states that:

[22] PPS10, Pages 5-6, Paragraph 3. Emphasis added
[23] PPS10, Page 6, Paragraph 4
[24] PPS10, Page 12, Paragraph 21
[25] PPS10, Annex E, Page 24, Paragraph f
[26] PPS10 Companion Guide, Page 15, Paragraph 3.1 (emphasis added)
[27] Draft RSS, Page 166, Paragraph 7.4.6
[28] PPS10, Pages 5-6, Paragraph 3

"Waste Facilities and the Waste Hierarchy
Provision of waste facilities will take account of the following waste hierarchy:
• *Waste should be managed on the site where it arises, wherever possible (waste minimisation), and*
• *Waste that is not managed at its point of arising should be managed according to the proximity principle*
In all areas, identification of sites for facilities will take account of the following:
• *Established and proposed industrial sites, in particular those that have scope for the co-location of complementary activities, such as proposed resource recovery parks, and*
• *Other previously developed land, including use of mineral extraction and landfill sites during their period of operation for the location of related waste treatment activities*
For SSCTs and other named settlements in Section 4, the location of new waste management or disposal facilities should accord with the following sequential approach:
• *Within*
• *On the edge of, and/or*
• *In close proximity to (i.e. within 16 kilometres) of the urban area primarily served by the facility*
For rural areas and smaller towns there should be provision of:
• *A network of local waste management facilities concentrated at, or close to, centres of population identified through Development Policy B, and/or*
• *An accessible network of strategic waste facilities*
Major sources of waste arising in rural areas will be treated locally, unless specialised facilities are required."[29]

[29] Draft RSS, Page 167

105. This policy presents a mix of a sequential approach alongside the waste hierarchy. It is clearly aiming to try to reduce the distance that waste travels. It refers to 'the proximity principle' which, as has been suggested is not fully in accordance with the key planning objectives of PPS10. The full implications of this policy and the way in which it has been interpreted and applied to Gloucestershire in terms of the 16km search areas is detailed in Technical Evidence Paper (WCS-C) Broad Locational Analysis.

Policy W4 'Controlling, Re-using and Recycling Waste in Development'

106. Supporting text for this policy states that when planning new development and collection of waste facilities, *"Developers should indicate how* [waste] *facilities will be provided within new development to enable the collection of recyclates from individual properties, including access by collection vehicles"*.[30]

Gloucestershire Waste Local Plan (2002 – 2012)

107. The adopted Gloucestershire Waste Local Plan (WLP) provides the current policy framework for waste development in Gloucestershire. It was adopted in October 2004 following a Public Local Inquiry in 2001. The Secretary of State issued a Direction (October 2007), which 'saves' some of the policies but not all. Policy 3 'Proximity Principle' was removed by the Direction however the two policies relating to transport - Policy 39 and Policy 40 (see below), have been saved until replaced by new policies. These will be set out in the development plan document containing policies for development control, which will be

[30] Draft RSS, Page 169, Paragraph 7.4.13

prepared following adoption of the Waste Core Strategy (WCS).

108. Policy 3 – Proximity Principle states:

"As a general principle waste should be dealt with as near as is practicable to the place where it is generated. This principle is subject to environmental, social, economic and transport considerations, which are appropriate to the waste management facilities and processes being proposed and which would contribute to the analysis of the BPEO for the facility."
The requirement for a consideration of BPEO (Best Practicable Environmental Option) is not contained within PPS10 and effectively the proximity principle is replaced by the key planning objective to enable waste to be disposed of in *"one of the nearest appropriate installations."*[31]

109. Policies specifically related to the transportation of waste are:

Policy 39 – Transport
"Proposals for the development of waste management facilities will be required to show that, where practicable, full consideration is given to the transport of waste, by: rail; water; and through pipelines; A transport assessment will be required to address the Traffic impact and the accessibility of the proposed development. The scope of the transport assessment must be agreed beforehand with the WPA."[32]

Policy 40 – Traffic
"Proposals for waste development will only be permitted where the site access and the adjacent highway network can safely accommodate the traffic associated with the development, or where the required highway improvements would not cause unacceptable harm to the local environment. A transport assessment will be required to address the traffic generation of the proposed development and its impact on the local road network."[33]

■ Outcomes of Issues & Options (I&O) Consultation on Waste Core Strategy

110. The WCS Issues and Options (I&O) consultation took place over an 8-week period between the weeks of the 17th July and the 15th September 2006. Of the 12 key issues discussed transport was not a specific issue, although obviously it is an important consideration in terms of e.g. the spatial strategy, waste facility locational issues and environmental impacts. In terms of comments from stakeholders on transport matters, the following is a brief summary:

111. Of the 12 Key Objectives set out in the Issues & Options documents, Objective 10 was:

"To reduce the environmental impacts of transporting waste by encouraging waste disposal to take place at the closest appropriate facility and to use more sustainable means of transporting waste."

[31] PPS10, Pages 5-6, Paragraph 3
[32] Gloucestershire WLP, Page 127
[33] Gloucestershire WLP, Pages 127-128

112. Stakeholder offered the following comments:[34]

• Some respondents commented that waste disposal sites are not strategically sited, however support was offered for development of a waste site per district.

• Consideration should be given for conservation areas.

• There must be more emphasis on home composting, more local recycling facilities and less transportation of waste". Pressure should be excerpted to move waste up the hierarchy. Wider range of materials must be accepted for recycling door-to-door.

• Sites should be at least 500m from housing; have suitable road access; prevent pollution; and use sustainable modes of transport.

• In terms of possible criteria to find new landfill sites it was suggested that "upholding the proximity principle and minimising transport would be important.

113. Two stakeholder events have been held to discuss waste issues in Gloucestershire: the first was in March 2006, the second was in October 2007. The outcome of both events was that highways/access issues were a key consideration I determining the suitability of locations/sites for waste management facilities. For full details of these events please refer to the Entec Report (May 2006) and the Land Use Consultants Report (November 2007).

[34] Respondents names are not cited, see the link below for the full Waste Core Strategy Issues & Options Consultation Response Report: Hhttp://www.gloucestershire.gov.uk/index.cfm?articleid=13349H

■ Options

114. The WCS provides the broad strategic framework for future more detailed DPDs such as the Waste Site Allocations DPD and also the Development Control Policies DPD. The inclusion of specific policies on transport will most appropriately be located in the latter document.

115. The more strategic aspects of considering the network and mode of transportation for locating sites and defining areas of search are to be considered in the WCS. In order to undertake this most effectively the preferred option is to include a strategic objective in the WCS to encourage the use of more sustainable modes of transport, to reduce the distance that waste travels, but to also reflect the PPS10 position, which potentially allows waste to travel further to sites where it can be most successfully and sustainably managed. The wording for such a strategic objective is considered in more detail in Technical Evidence Paper WCS – B 'Spatial Vision and strategic Objectives'.

116. Stakeholders have clearly indicated that the policies in the WLP need replacing and updating, and the strategic direction needs to be reflective of new national and regional policies. Thus it will be appropriate for the WCS to address transport issues in its Strategic Objectives. The delivery mechanisms should make reference to the Regional Freight Hierarchy[35] and to Gloucestershire's Advisory Freight Route Map.

[35] As outlined in Draft RSS Section 5.6 and Policy TR12, Page 125

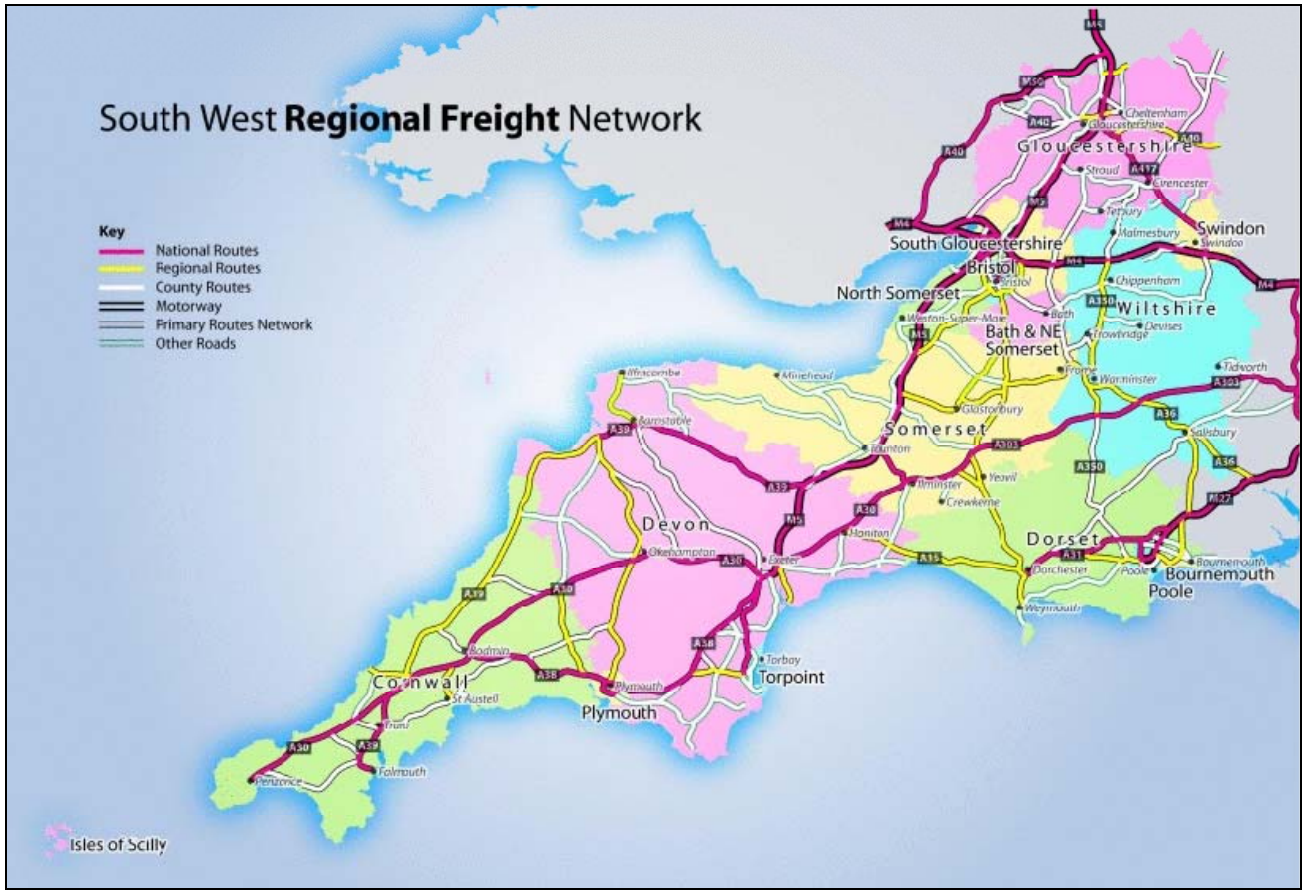
Section 6
Conclusion

117. This report has provided background information on the transport network in Gloucestershire with a focus on minerals and waste transportation. It has focused on opportunities for transport by sustainable means, other than road haulage.

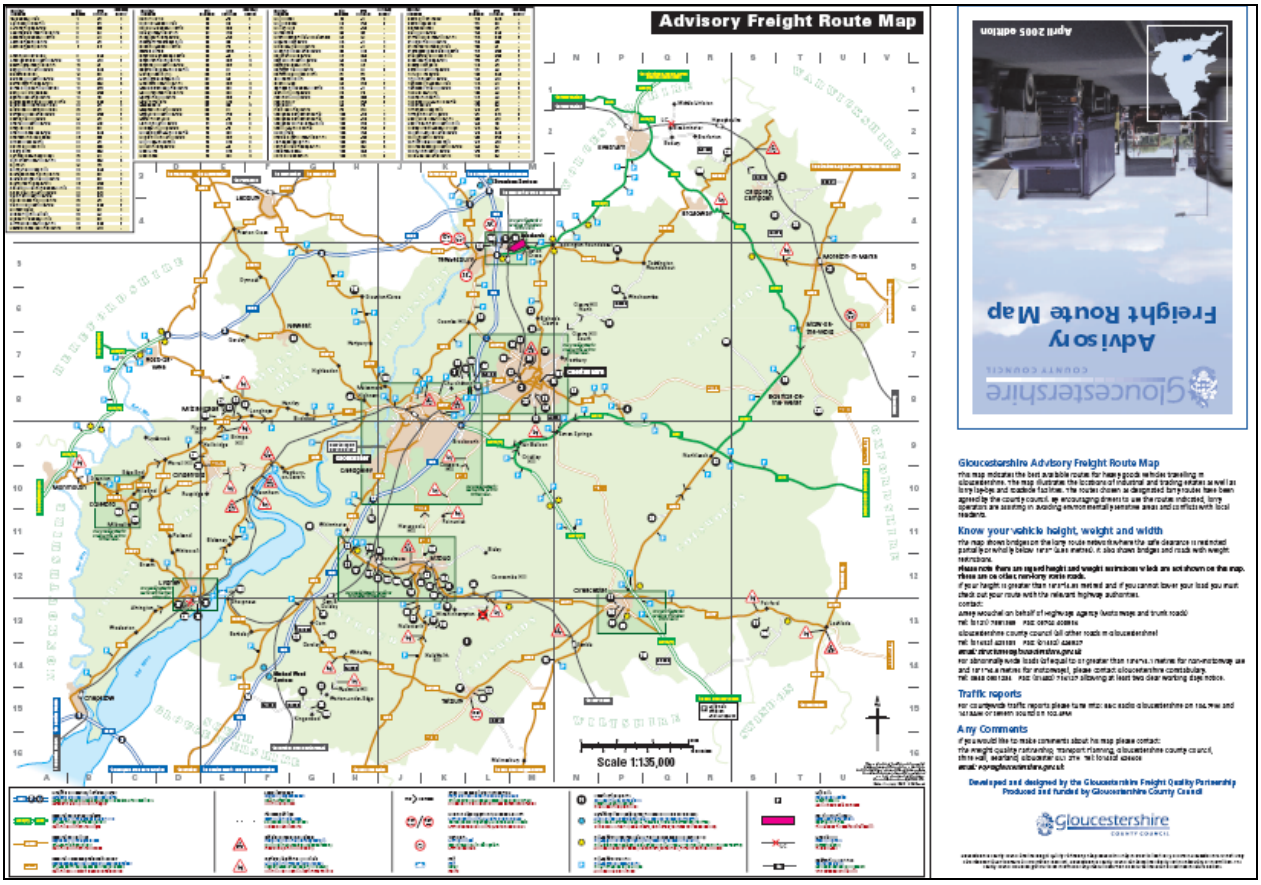
118. It has also considered a number of policy requirements at the national, regional and local level, with respect to transport and the way in which this will impact on mineral working and waste management in Gloucestershire.

119. The report has not considered specific policy options, but it has recommend ways forward for both the emerging MCS and WCS with respect to considering transport issues, providing a framework for policies that will follow in subsequent more detailed DPDs.

<u>Appendix 1:</u> Cornwall County Council South West Regional Freight Network Map based on Draft RSS Regional Freight Map. Source see:
http://db.cornwall.gov.uk/LTP/freight-strategy/section_191315223478.html



Appendix 2: **Gloucestershire Advisory Freight Route Map. For full details see:**
http://www.gloucestershire.gov.uk/index.cfm?articleid=6005



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