

West of England Partnership
Joint Transport Executive Committee
12 November 2009

Joint Local Transport Plan Update

Purpose of Report

1. To update on progress and issues related to the current Joint Local Transport Plan (JLTP) and endorse the 2009 version of the Congestion Delivery Plan, and update on progress and issues related to the emerging replacement Joint Local Transport Plan 3 (JLTP3) and to seek the Committee's views.

Background

2. The current JLTP covers the period 2006 to 2011. It sets out the West of England's approach to transport based around the four shared priorities of congestion, accessibility, road safety and air quality. Two updates on progress with supporting projects, the Congestion Delivery Plan and the Influencing Travel Behaviour Action Plan, are provided below.

Congestion Delivery Plan (Supporting the Current JLTP)

3. The Department for Transport (DfT) has a national Public Service Agreement target to minimise increases in traffic congestion over the JLTP period. The West of England urban area is one of ten to have been identified to include a local congestion target within the current LTP to feed into the national target.
4. In October 2006, the Department for Transport announced that it had made available a fund of up to £60 million spread over 4 years, to provide an incentive to the 10 areas to outperform their local congestion targets. The new fund is in addition to existing LTP funding streams. In order to qualify, the areas needed to submit a Congestion Delivery Plan (CDP).
5. The West of England CDP was accepted by the DfT in July 2007 and endorsed by the four Councils later that summer. The CDP includes a target agreed with the DfT focusing on 8 key routes in the urban area and establishing a trajectory to 2011. Based on average journey time per person per kilometre (both by car and bus) the target is:
 - *On target routes to accommodate an expected increase in travel of 7% with a 14% increase in journey times.*
6. This target and associated monitoring programme is focussed on radial routes into Bristol city centre and the Avon Ring Road. The CDP forms an Action Plan for the delivery of the JLTP congestion target, giving confidence that the congestion target will be met and potentially exceeded. The report includes clear aims, a trajectory showing predicted progress towards the target with milestones and the effect of intervention schemes.

7. In the CDP an emphasis is made on investment in value for money schemes along the core routes and a range of other initiatives, including:
 - A420 Showcase bus route and other bus lanes and links
 - Upgrading and signalisation of junctions
 - Expansion of the Urban Traffic Control network
 - Parking control and enforcement
 - Carrying out Traffic Management Act 2004 duties
 - Smarter Choices including workplace and school travel plans, freight delivery, neighbourhood initiatives, car clubs.
8. In addition, the Greater Bristol Bus Network Major Scheme now underway has a crucial role in tackling congestion and enabling the congestion target to be exceeded.
9. The first tranche of reward funding was paid to areas that produced a CDP that gave confidence that the target will be met, while exploring options for going further. Subsequent funding has been linked to performance towards meeting and exceeding the target.
10. Since submission of the CDP, journey times on the core network have fallen by 5%, which is very encouraging. As a result of this performance to date, approximately £1 million reward funding has been allocated to the sub-region. Schemes benefiting from this funding have included junction upgrades and enhancing/monitoring the Urban Traffic Control network, and further payments will be forthcoming if our good performance is maintained.
11. The CDP is a living document with a requirement to monitor and regularly update. The Autumn 2009 version of the CDP is attached as Appendix 1 forming the first update since 2007. The 2009 version includes an update on the programme, including the following initiatives progressed since 2007:
 - Launch of the A420 showcase route
 - Cycling City
 - P&R enhancements
 - GBBN schemes
 - Severn Beach line service enhancements
 - Bristol City Council's Traffic Control Centre
12. It is recommended that the Autumn 2009 version of the CDP is endorsed by Members for forwarding to the DfT, to demonstrate that our progress towards tackling congestion is being closely monitored and updated.

Influencing Travel Behaviour Action Plan

13. One element of the Action Plan to meet the JLTP shared priority of tackling congestion is personalised travel marketing. With the support of the South West Regional Development Agency (SWRDA) a TravelSmart Individualised Travel Marketing (ITM) campaign was undertaken across more than 2,000 households in the Worle area of Weston-super-Mare in autumn 2008. TravelSmart seeks to encourage a change to more sustainable modes of travel by the supply of information (in this case more than 8,500 items) and follow up services tailored to individual travel needs.

14. The effects of the ITM are measured using detailed surveys before and after the campaign. The Worle campaign resulted in a 12% reduction in car trips as driver amongst the targeted households with corresponding transfer to public transport, cycling and walking. This equates to a saving of some 21 million car kilometres per year. A further ITM, again co-funded by SWRDA, was undertaken in the Brislington and Knowle areas of Bristol in Spring 2009 with results expected early next year.

Joint Local Transport Plan 3

15. JLTP3 will be in three parts with a Strategy taking the long term policy view to 2026, to coincide with the Regional Spatial Strategy, a Delivery Plan setting out implementation proposals over the shorter term and Supplementary Documents covering walking, parking, public transport, traffic management and freight, smarter choices, road safety, cycling and rural transport in more detail.
16. A report on the draft engagement plan for JLTP3 was presented to and endorsed by the Joint Transport Executive Committee on 01 October 2009. Work has been progressing on the first three chapters of JLTP3. The chapters are:
 - Chapter 1 Setting the scene
 - Chapter 2 Vision and Goals
 - Chapter 3 Challenges and Opportunities
17. Drafts of chapters 1 to 3 are attached for Members' comment as Appendix Two. An outline of the structure for the following chapters is also included.
18. It is intended that these chapters form the basis for the first Transport Plan Commission meeting and placed on the JLTP3 webpage for further key stakeholder engagement. To this end each chapter concludes with a list of questions.
19. All chapters are at an early stage and should be viewed as such. Nonetheless it is worthwhile sharing them with a wider audience at this stage to provide an indication of how JLTP3 is emerging and seek feedback.

Recommendations

1. That Members give their views on the draft Chapters 1 to 3 of JLTP3.
2. That Members endorse the Autumn 2009 Version of the Congestion Delivery Plan.
3. That members note the results of the Travelsmart campaign in Worle.

Appendices

Appendix One: Congestion Delivery Plan
Appendix Two: Draft Chapters 1, 2 and 3 of JLTP3

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**West of England Partnership
Congestion Delivery Plan
2009 Updated Edition**

EXECUTIVE SUMMARY

1. This Congestion Delivery Plan has been submitted by the Joint Transport Team of the West of England Partnership on behalf of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils. It supports the area's Joint Local Transport Plan (JLTP) and sets out and clarifies the strategy and action plan for tackling congestion on the key highway network in the Greater Bristol urban area.
2. The Delivery Plan has two aims:
 - *To minimise the rate of increase in journey times for all users of the highway over the JLTP period up to 2011; and*
 - *To increase the number of travellers that can be accommodated on the network whilst minimising any increase in journey times.*
3. A target has been agreed with the Department for Transport (DfT) focusing on 8 key routes in the urban area and establishing a trajectory to 2011. The target has been established through computer modelling based on the likely impact of expected government funding of transport schemes over this period. Based on average journey time per person per kilometre (both by car and bus) the target is:
 - *On target routes to accommodate an expected increase in travel of 7% with a 14% change in journey times.*
4. Our Congestion Delivery Plan was endorsed by the DfT in July 2007. The Plan is a living document, to be regularly updated, and this edition represents the first update on our progress since submission and endorsement. Since then, journey times on the core network have improved by 5% and approximately £1 million of additional reward funding has been allocated to the four Councils by the DfT on the basis of this performance. This funding is being targeted at a range of decongestion initiatives including junction and signal upgrades to unlock congestion hotspots and investment in network monitoring, alternative modes to the car and smarter choices.
5. In the next two years priority will continue to be given to investment in value for money schemes along these routes and a range of other initiatives. Based on existing levels of Integrated Transport block funding the programme comprises:

- A420 Showcase bus route and other bus lanes and links;
 - Upgrading and signalisation of junctions;
 - Expansion of the Urban Traffic Control network;
 - Parking control and enforcement;
 - Carrying out Traffic Management Act 2004 duties;
 - Smarter Choices including workplace and school travel plans, freight delivery, neighbourhood initiatives, car clubs;
 - New and expanded park and ride sites;
 - Enhanced rail frequencies.
6. The Greater Bristol Bus Network (GBBN) Major Scheme – on which construction has commenced following full funding approval by the DfT– will play a key role in taking this process further and enabling the target to be exceeded. It embraces a package of measures along 10 corridors, six of them coinciding with the routes identified in this Delivery Report. In addition the designation of Greater Bristol as the UK’s first official Cycling City has added impetus to the Councils’ promotion of cycling as an alternative to car use, especially for short journeys.
 7. The Councils look forward to receiving further reward funding from the new national Congestion Performance Fund. Additional corridor based schemes are put forward with a capital cost of £2.5 million. Revenue spending, totalling some £0.5 million per year, would be put towards supporting Smarter Choices, Urban Traffic Control and real time bus information projects.
 8. The broad congestion strategy was agreed by the four Councils as part of the Joint Local Transport Plan. This updated Congestion Delivery Plan was endorsed by the four Executive Members for Transport in November 2009 (TBC). Ownership of the Delivery Report rests with the four Councils with the West of England Partnership’s Joint Transport Team having a co-ordinating role.
 9. Congestion is regularly monitored on the 8 selected routes against the target trajectory and the results reported in updates to the Plan. A management system has been set up to keep track of risks in achieving the target and ensuring early and efficient mitigation.
 10. Many organisations and individuals form the ‘delivery chain’, those key to monitoring and managing congestion. A communications strategy has been drawn up to assist in keeping the public and stakeholders involved.
 11. The Congestion Delivery Plan outlines a clear strategy for tackling congestion in the West of England and aims to give confidence to the four Councils, the Department for Transport and others that the congestion target is achievable.

Congestion Delivery Plan – Overview of Assessment Approach

Characteristics of Good Delivery Planning	Reference within West of England Congestion Delivery Plan
<i>Clarity About Aims</i>	
Is the plan focused clearly on achievement of the congestion target by 2010/11?	The plan builds on the strategy set out in the Joint Local Transport Plan (JLTP) to highlight targeted investment to address congestion hotspots and encourage a shift to public transport, walking and cycling. Figures 5 to 14 summarise investment for each key corridor with timescales and supporting strategies.
Is the basis for the local target and its context explained clearly?	The target has been established through an endorsed computer modelling procedure. Section 2 outlines how this has taken into account the impact of the schemes and strategies in the JLTP, likely government funding and predicted development in the sub-region.
Does the plan set out how it fits with network management duties and the wider agenda e.g. interface with economic development and/or other PSA targets?	The network management duties of the four Councils are summarised in Section 3 of the plan, emphasising links with the corridor based investment proposals and feeding into the governance structure set out in Section 4. Links to PSA targets are summarised in section 3 and section 2 includes consideration of the impact on the transport network of predicted development in the sub-region.
<i>Understanding Delivery Success Factors</i>	
Is there a trajectory demonstrating an understanding of how different measures will contribute to delivering the target?	Section 9 outlines a trajectory towards achieving the target over the plan period, including the range of key interventions. It is envisaged that the key impacts of the plan will take effect further into the trajectory to cater for wider network benefits of bus priority and signal capacity improvements and associated spend profiles.
Is action clearly set out for each route?	Section 3 includes summaries of investment for each corridor, broken down in terms of funding source, scheme type and year of implementation.
Are the biggest challenges to successful delivery identified and are there proposals to address them?	Risks for each measure and a risk register are included in Section 5, together with mitigation measures and risk owners. Current and future opportunities for close working with key stakeholders are identified to meet proposed delivery timescales.
Is there provision for re-prioritising in the light of experience over time?	The governance structure set out in Section 4 emphasises close working between partners and the opportunities to agree revision of future investment to ensure that progress is redirected back on track should monitoring show performance to be substandard.
Is it clear what more might be achieved with additional funding, and potential to over-perform?	The plan clearly distinguishes between committed JLTP funding streams and those for the Greater Bristol Bus Network major scheme. The latter has been modelled to exceed the target as outlined in Section 3, which also summarises options for reward funding and how they will also contribute to the target being exceeded.
<i>Clarity Around Actions, Owners and Milestones</i>	
Is it clear who owns the target and what will be done when and by whom?	The target is owned by the West of England Partnership with responsibility for delivery of schemes with the four unitary authorities. The governance structure outlined in Section 4 sets out the linkages to ensure delivery, and the route summaries and milestone structure in Section 8 outline timescales and delivery responsibilities.
Where achievement of the target is dependent on others, does the plan say how they will be influenced and held to account?	The governance structure in section 4 sets out delivery responsibilities for the four unitary authorities and the structure for close partnership working to maximise opportunities to influence, hold to account and ensure consistent delivery. The risk register in section 5 outlines mitigation measures for stakeholder partners to ensure joint investment and support for delivery particularly from the business community.

Is it clear that a sufficient level of resources and skills are available to implement the plan?	Sections 2 and 3 summarise the track record and skills of the four unitary authorities in delivering decongestion schemes to date. Section 8 summarises how additional resources have been brought in to enhance in-house project management skills. The Joint Transport Team will assist with co-ordination of scheme delivery.
Are important dates when actions must be completed and when progress is to be assessed included?	Section 3 includes route summaries outlining dates for interventions. The milestones table in section 8 includes dates for monitoring including reporting to the DfT.
Is it clear what action is already agreed and what is still to be decided?	Strategic endorsement of the strategies in the plan is already achieved through and building on the JLTP process. Actions still awaiting detailed endorsement are set out in the milestones table in section 8, including agreement on future capital programme allocations and actions dependent on statutory consultation mechanisms.
Effective Stakeholder Management	
Are the key stakeholders and partners in the delivery chain identified?	Sections 6 and 7 set out the key stakeholders, roles and responsibilities and consultation mechanisms to ensure close involvement.
Are stakeholders' attitudes and potential impact on achievement of the target understood?	Through their experience of delivery of sensitive traffic measures to date, the unitary authorities are clearly aware of current and potential stakeholder attitudes and the potential impact on the target. The risk register in section 5 provides a detailed breakdown of such issues and supporting information.
Are there clear proposals to influence and communicate with stakeholders?	Section 7 outlines current initiatives to work closely with key stakeholders to modify/clarify schemes where appropriate, both at the strategic level in terms of potential traffic restraint options and detailed involvement and partnership working for individual schemes.
How will the public be communicated and engaged with?	The JLTP process provides an ongoing consultation framework to engage the public through future events and forums, leaflet and web-based initiatives. Local scheme based consultation will also be given a high priority when implementing specific schemes to ensure further amendments can be considered as part of detailed design.
Effective Governance Arrangements	
Does the plan set out the governance structure and decision-making processes clearly?	Section 4 outlines in detail a clear governance structure and its close links with the management of the Greater Bristol Bus Network. Since submission of the CDP this has been strengthened through the formation of the Joint Transport Executive Committee. Responsibilities at key levels are set out and linkages emphasised to ensure consistent decision-making and engagement with key stakeholders.
Are the implications of the above fully taken into account in the plan eg. Are timescales realistic?	Section 3 sets out a realistic timetable for interventions, and the governance structure provides clear opportunities to ensure early remedial action should insufficient progress be achieved.
Is it clear who will be ultimately responsible for delivery of the urban congestion target?	The West of England Partnership has ownership of the target, with responsibility for delivery of interventions resting with the unitary authorities. The governance structure will facilitate close working between both sets of organisations and between different management levels to ensure action is taken to achieve the timescales in the plan for the different interventions.
In what ways will those responsible be held to account for their delivery performance (whether in direct or indirect control)?	The plan sets out partner responsibilities for delivering the interventions and the close working facilitated at a head of service and executive member level through the governance structure will maximise opportunities to highlight the implications of not delivering and adhere to the intervention programme. The framework of agreements with the main commercial bus operator will also play a key role in maintaining delivery.

Effective Performance, Project and Risk Management	
Are the main risks to achievement of the target identified and explained?	The risk register in section 5 sets out and scores risks and owners. The route summaries in section 3 also consider risk on a scheme-by-scheme basis.
Are actions proposed to mitigate and/or manage key risks?	Mitigation measures are set out in the register.
Does the plan set out robust and regular means of checking whether progress is on track to deliver the target by the deadline?	The Joint Monitoring Working Group will facilitate a quarterly review of progress both in terms of monitoring data and implementation of interventions. This group will report regularly to Heads of Service of the four authorities to enable remedial action to be taken where necessary.
Does the plan have the feel of a living document?	Section 9 of the plan will be regularly updated to report on current progress for both monitoring and implementation of interventions. Similarly, the risk register will be revised and updated as the plan proceeds. Revised drafts of the plan will be submitted on a six monthly basis to the Department for Transport for consideration.

1. Purpose of the Delivery Plan

- 1.1 The West of England Congestion Delivery Plan (CDP) has been prepared and updated by the Joint Transport Team of the West of England Partnership on behalf of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils. It supports the area's Joint Local Transport Plan (JLTP) and sets out and clarifies a strategy and Action Plan. These are aimed at delivering the JLTP's objective to minimise congestion on the key radial highway network in the Greater Bristol urban area in line with a clear target and scheme programme. The report gives confidence to the authorities and the Department for Transport (DfT) that the local congestion target is deliverable and will be directly met by the schemes and programme set out within it.
- 1.2 Traffic congestion is increasingly acknowledged to be a significant constraint on economic growth, and the ten largest cities in England have included an additional local target within their Local Transport Plans to minimise the extent of traffic congestion on their highway networks. The ten local targets have been taken together by the DfT to form a national Public Service Agreement target. In support of this the DfT announced in October 2006 that it had identified a separate fund of up to £60 million over the period up to 2011 as an incentive for these authorities to improve on their local congestion targets.
- 1.3 The JLTP details an integrated set of strategies to tackle traffic congestion. This Delivery Plan highlights and develops these initiatives and clarifies how targeted investment on corridors will reduce the rate of growth of congestion and address its impact.
- 1.4 The aims of the Delivery Plan complement the wider aims and objectives of the JLTP, specifically those relating to the aim of tackling congestion as set out below:

JLTP Aim	JLTP Objectives
To tackle congestion	<ul style="list-style-type: none">• Promote use of alternatives to the private car• Encourage more sustainable patterns of travel behaviour• Manage the demand for travel by the private car.

- 1.5 The Delivery Plan is a daughter document to the JLTP, and adds more detail to the JLTP congestion strategy, giving confidence that the local congestion target will be met. It has the following aims specific to congestion reduction:
- *To minimise the rate of increase in journey times for all users of the highway over the JLTP period up to 2011; and*
 - *To increase the number of travellers that can be accommodated on the network whilst minimising any increase in journey times.*

The Local Target

- 1.6 The submission of the JLTP and further detailed discussions with the DfT has resulted in the formulation of a target focussing on key selected routes across the Greater Bristol area as shown in Figure 1. As agreed with the DfT the M32 has been excluded due to the period of disruption arising from the expansion of the Broadmead shopping centre, which would not have enabled accurate congestion monitoring prior to 2009.
- 1.7 The target refers to average journey time per person per kilometre (both by car and bus modes) and is summarised as follows:

On target routes, accommodate an expected increase in travel of 7% with a 14% change in journey times.

Figure 1 as before showing selected routes

- 1.8 The JLTP proposes a dynamic and wide ranging Tackling Congestion Strategy focussed on:

- 1: Providing Alternatives to the Car.

Action Plans to deliver this objective include a major upgrade to the quality and reliability of bus services, targeted investment and partnership working with operators, park and ride expansion, measures to encourage walking and cycling and improvements to rail services, frequencies and network capacity.

- 2: Influencing Travel Behaviour

Promotion of 'Smarter Choices' can have a major impact on travel behaviour, including Travel Plans for schools and major employers, close working with the freight industry to improve efficiency and promote rail freight, expanding the existing car club network and promotion of car sharing initiatives.

- 3: Managing Demand for Private Car Travel

Strategies include improved management of the highway network, including extension of Urban Traffic Control systems and associated intelligent measures, better management and liaison of street works, extension of parking controls (with fiscal demand management in the medium and long term), and closer links between transport and land use planning.

The DfT assessed the JLTP congestion strategy as 'Good', which was reflected in the overall 2007/08 settlement with additional reward funding made available. The JLTP's coverage of the sub-region's Network Management Duty was also assessed as 'Good'.

- 1.9 The CDP identifies on the basis of value for money where investment can be targeted most efficiently to directly tackle congestion and meet or exceed the congestion target. As a consequence, emphasis is placed on the prioritisation of investment on key corridors. A current example is the four Councils' Greater Bristol Bus Network (GBBN) Major Scheme that will play a pivotal role in reducing reliance on car use for radial movements into Bristol city centre. The scheme proposals are being complemented by network management improvements at key signalised junctions. This will improve network capacity, or at least maintain it, whilst providing further pedestrian and cycle improvements to further encourage alternative modes to the car. The success of these measures will be facilitated through emphasis on Travel Plans with key employers on these corridors.
- 1.10 The CDP is therefore fully complementary to the JLTP and focuses on schemes and strategies that will deliver decongestion benefits. It therefore effectively forms a daughter document to the JLTP.
- 1.11 This Plan is a living document, which will continue to be updated at regular intervals to illustrate progress towards the congestion target. Detailed consideration is given to managing risks, which may deter progress. Where progress is off-track, mitigation measures and potential re-direction of investment will be considered to ensure that the target trajectory is re-established.

2. Background

- 2.1 The JLTP was submitted in March 2006, following significant consultation and the formulation of a set of integrated strategies to address the four-shared priorities of Accessibility, Road Safety, Congestion and Air Quality. The JLTP includes a particular emphasis on improving the quality and reliability of alternative modes to car travel to reduce reliance on the private car. In particular, the GBBN Major Scheme is planned to produce a step change improvement in bus travel through a partnership between the four Councils and the main commercial operator. It is aimed at delivering a combination of bus priority measures and associated infrastructure complemented by substantial bus fleet renewal.
- 2.2 The Greater Bristol urban area is densely populated with a compact highway network and a relatively high level of car ownership. Peak hour traffic speeds in the Greater Bristol area, at an average of 15 mph, are the slowest of the English 'core' cities. At peak periods, 21%

of travelling time is spent stationary and DfT data indicate that there has been until recently a steady decline in average speeds.

2.3 Congestion substantially worsens bus reliability, with only 70% of services currently able to remain on timetable along their route. The draft Regional Spatial Strategy proposes that sub-region should accommodate up to 138,000 further dwellings over the next 20 years and this will generate further increases in travel demand on the main corridors to Bristol city centre and the North Fringe.

2.4 Significant progress had already been made over the previous LTP1 period to deliver measures that tackle traffic congestion in the Greater Bristol area. Key examples that highlight good practice include the following:

- The city's first Showcase bus route was launched in December 2003 between Henbury and Hartcliffe and the city centre. An integrated combination of bus priority measures, traffic signal upgrades and bus stop improvements was complemented by the delivery of a fleet of new high quality buses in partnership with the operator. The project achieved a 12% increase in bus patronage, with a third of new users previously having undertaken the journey by car. The upgrading of traffic signal installations along the route gave opportunities to maintain and where possible improve network capacity for all users of the highway;
- A new park and ride site was opened at Portway in April 2002 on the A4 near junction 18 of the M5, attracting significant numbers of car users onto the bus service;
- Signalisation of roundabouts on the Avon Ring Road and complementary traffic management measures have improved network efficiency and journey times for car sharers and buses on this key route into the North Fringe employment area. A High Occupancy Vehicle (HOV) lane has also been introduced on the A370 approach to the city from the south west;
- The ground breaking Freight Consolidation Centre was commenced in May 2004, providing a high profile off-site freight transfer service for Bristol's Broadmead shopping centre, enabling lorries to off-load deliveries on the edge of the city and reduce lorry mileage into the city centre. Over 55 retailers have joined this service, those participating experiencing a reduction in delivery movements of 77%;
- The four authorities have worked closely with major employers and the main commercial bus operator to deliver robust and effective travel plans for key employers;

- Car sharing - the sub-region's car sharing scheme includes over 20 major employers and saw a 25% increase in membership between 2007/08 and 2008/09.

Lessons Learned during the First LTPs

- 2.5 Partnership working with the bus operators increases the efficiency of investment and achieves significant growth in bus patronage and improved mode shift from the private car. Future Showcase routes would build on the close co-operation established with the first route. In particular, First are represented on the Programme Board for GBBN and have played a key role in the design and promotion of this Major Scheme.
- 2.6 Targeted consultation has a key role in effectively delivering schemes, which may initially be unpopular due to perceived local economic impacts, and in identifying mitigation measures. The aim is to implement schemes in partnership with local organisations and communities. In addition, Smarter Choice initiatives such as Travel Plans have proved to have great potential for achieving significant shifts onto alternative modes and thereby reducing congestion. The Councils will continue to work closely with schools, hospitals and major employers to refine and move towards more robust targets for sustainable commuting.
- 2.7 Overall, through their increasing experience in the management of multi-disciplinary projects, the Councils will be able to ensure efficient delivery with effective mitigation of identified risks. This expertise will deliver schemes more efficiently, bring forward capacity and journey time improvements and maximise the potential to exceed the congestion target within the 2011 timescale.

Target Setting

- 2.8 The West of England core urban area is one of ten selected by the DfT to define a local congestion target to feed into the national PSA target. This target (JLTP target LTP7) and associated monitoring programme, is focussed on radial routes into Bristol city centre and on the Avon Ring Road, as agreed with the DfT through the Congestion Monitoring Working Group. As stated above, the target is to accommodate a 7% increase in car and bus travel whilst limiting the increase in journey time to 14%.
- 2.9 The target has been developed using the Bristol Area Transport Study Model, developed jointly by the four Councils in conjunction with consultant Atkins, for a 2011 forecast year. The model includes both a highway model, simulating all main junctions in the Bristol urban area, and a public transport network model. The model also incorporates travel demand from future traffic growth based on car availability and trip purpose and that generated by major housing and employment

development sites planned in the city and surrounding area up to 2011. Discussions were held with the DfT on a provisional target, and the Councils provided details of the modelling base used to develop the target. The modelling consultant employed by DfT to review the targets considered that the increase in travel shown by the Greater Bristol model was not unreasonable, and the forecast changes consistent with previous work and the results of modelling undertaken for the Greater Bristol Strategic Transport Study.

2.10 Assumptions in the model include a 2% annual increase in bus fares in real terms and parking charges rising in line with inflation. The transport impact on both network performance and mode shift was included in the 2011 scenario, based on expected integrated transport and maintenance block funding and on committed schemes including:

- The A420 Showcase bus route;
- Signalisation of the A4174 Wick Wick and Westerleigh Road roundabouts;
- Expansion of the A4174 High Occupancy Vehicle lane network;
- Enhancements to bus route patterns facilitated by the Romney Avenue and Coniston bus links (new infrastructure).

2.11 Overall therefore the quantifiable impacts of predicted JLTP spending on the network towards the congestion target have been incorporated. More strategic elements however such as expansion in the UTC system (additional to junction remodelling) and 'smarter choices' initiatives will therefore contribute to the target being exceeded. In addition, the target was based on projected levels of integrated transport block funding and excluded the potential effect of the Major Scheme Programme. (Schemes such as GBBN awaiting funding approval when the target was set).

2.12 Initial reward funding was allocated to areas that produced a CDP that gives confidence that the target will be met whilst exploring options for going further. In subsequent years funding is linked to performance towards the target. Delivery of GBBN and Greater Bristol Cycling City schemes potentially enables the congestion target to be more stretching. Further consideration of the revised delivery profile and programming of these two projects will clarify this issue. Additional funding awarded to the Greater Bristol area would be targeted at specific public transport and decongestion schemes as outlined in Section 3.

3. Enabling Actions and Delivery Levers

3.1 Over the LTP1 period up to 2006 the Councils have a proven track record in the delivery of transport schemes, particularly bus-based and traffic signal improvements. Through the practical experience of delivering 'Showcase' routes we have an excellent understanding of

the implementation issues that can occur and have mitigated these through risk management, The Councils' considerable expertise in delivering high profile projects included:

- The A38 Showcase bus route, launched in December 2003. This £3.5 million project included widespread and targeted consultation and the inclusion of a comprehensive mitigation package to address concerns raised over the impact of parking restrictions on district centres;
- Joint submission of Local Transport Plans and a Joint Delivery Report for the first five year LTP1 period, the latter being assessed by the DfT as 'very good';
- Co-ordination and delivery of major European Commission funded transport projects with large numbers of local and European partners, including the 'Vivaldi' project with a budget in excess of £20 million, completed on time and within budget in January 2006;
- Successful implementation to budget and on time of major improvements to the A4174 Avon Ring Road with a project cost of around £3.5 million funded through supplementary LTP funding;
- Both Bristol City and South Gloucestershire Councils were awarded 'Centre of Excellence' status during the LTP1 period.

3.2 As outlined in Sections 1 and 2, the JLTP identifies a wide range of contributory actions feeding into the objective of tackling congestion. The CDP prioritises and clarifies the extent to which individual Action Plans and strategies in the JLTP will assist in delivering the congestion target. Chapter 11 of the JLTP includes an assessment of the extent to which each scheme type performs against the national shared priority of reducing congestion and Table 3.1 below builds on this assessment by considering the magnitude of different levers.

Table 3.1: Delivery Levers – Contribution to Reducing Congestion

Scheme Type	Contribution to Reducing Congestion	Value for Money
Bus Infrastructure	+++	Very high
Rail Infrastructure	+++	Medium
Park and Ride	++	Medium
UTC, Signals	+++	High
Parking controls	+++	Medium
Walking	+++	Very high
Cycling	+++	High
Smarter choices	++	High

- 3.3 Investment in bus, walking and UTC/signal enhancements score particularly well when considered in combination with value for money (i.e. the number of car trips removed from the network and/or increasing capacity for vehicle movements at congestion bottlenecks compared to the level of investment). The strategy to deliver the congestion target is summarised in Figure 2 and consists of a combination of:
- Showcase bus route upgrades;
 - traffic signal remodelling and upgrading on routes that will deliver key benefits as early as possible in the CDP 5- year programme;
 - expansion of the UTC network;
 - parking controls and enforcement;
 - carrying out responsibilities of the Traffic Management Act 2004;
 - Smarter Choices, including cycling and walking and close working with key employers;
 - rail and park and ride enhancements.
- 3.4 The range of measures associated with the GBBN scheme and the Greater Bristol Cycling City initiative are over and above the core activities shown in Figure 2.

Figure 2 showing JLTP integrated transport schemes as before

Specific Schemes to Meet the Target

- 3.5 The package of projects designed to meet the congestion target places emphasis on achieving greater performance out of the network by the proactive management of traffic. In several cases reliance on dynamic signal techniques will in particular advantage bus operation whilst delivering further benefits for general traffic and unlocking existing congestion hotspots.

A420/A431 Showcase Bus Route

- 3.6 The A420/ A431 showcase route between Kingswood and Bristol city centre was launched in December 2007, building on the comprehensive package of measures delivered by the first A38 route. The A420/A431 scheme has provided lengths of both inbound and outbound bus priority lanes to substantially improve bus journey times and reliability, generally through converting existing kerbside parking areas to bus lanes or by selective highway widening.
- 3.7 A central part of the Showcase bus scheme was a package of upgrades to pedestrian facilities at all main junctions along the corridor. Significant investment in improving pedestrian accessibility has thereby been delivered through targeted investment on key corridors. Improvements to cycling infrastructure were also included wherever possible for each route.

- 3.8 The corridor represents an investment of £5.5 million in bus priority, signal upgrade and bus stop facilities. The scheme has included a total of 2.2 kilometres of new bus lanes, the remodelling of ten key junctions with upgraded equipment and incorporation into the UTC network, a review of on-street parking provision along the corridor and the provision of new, high quality vehicles by the operator. In the first 3 months of operation bus patronage on the corridor increased by 9.4%.
- 3.9 In particular, the scheme has involved a step change in the sophistication of intelligent bus priority. The management of the corridor is much more sensitive, facilitating re-location of queuing traffic to stretches of highway where bus priorities can be provided. This enables significantly greater reliability gains over and above those achieved on the A38, again benefiting all vehicles on the corridor.

Rail Enhancements

- 3.10 The Severn Beach rail line, complementing the A4 Portway corridor, has seen substantial recent passenger growth, increasing by 60% since 2004. Additional revenue support funding by Bristol City Council enabled a substantial increase in service frequency from May 2008. This improvement was intended to significantly enhance the attractiveness of the service to travellers currently commuting by car to the city centre along this corridor. It also improves service frequency for travellers on the A432 and A4018 corridors.

Park and Ride

- 3.11 In Summer 2008 the Portway Park and Ride site was increased to 570 spaces, accompanied by a substantial lengthening of the A4 Portway bus lane to provide a total of 3 kilometres of segregated bus lane. These measures have enabled park and ride passengers to gain a further significant advantage in journey times over general traffic with no detrimental impact for general traffic capacity. The first three months after completion of the works saw patronage on the service increase by over 25% compared to the equivalent period in 2007/08. An extension to the A4 Brislington park and ride site is planned by 2011 on the A4 Keynsham corridor.
- 3.12 A park and ride site at Emerson's Green on the A4174 corridor will be provided as part of a major mixed use development. This will be served by new, frequent high profile services funded by the developer to both the city centre and the North Fringe. Services will take advantage of the existing and planned amendments to the network of priority lanes on the ring road. This will offer an attractive and competitive journey time to maximise patronage and mode shift from the private car.
- 3.13 South Gloucestershire Council is pursuing options for a rail-based Park and Ride to the north of Parkway station as part of a wider review of traffic management and road safety issues in the area. Serving the

A432 and A4174 corridors, this forms part of a package of works that are under investigation as part of the station travel plan pilot being undertaken at Bristol Parkway. The aim of the project is to encourage sustainable travel to and from the station.

Additional Traffic Signal Remodelling and Bus Priority Schemes

3.14 Further targeted improvements and equipment renewal are programmed at key junctions on the corridors to unlock congestion at the following locations:

- M32 corridor – signalisation of junction 3, completed in September 2008, has improved traffic management at this critical junction and improves management of traffic flow between Junction 2 and the expanded Broadmead shopping centre;
- A4018 corridor (Congestion Route 1) – bus stopping and bus priority measures to and within The Centre interchange will be remodelled and enhanced as part of the Ashton Vale to Temple Meads and North Fringe to Hengrove rapid transit projects post-2011 to substantially improve the attractiveness and reliability of services through this crucial part of the city centre. In addition, the Tyndalls Park Road/ Whiteladies Road junction will be upgraded with the replacement of life-expired control equipment, to improve capacity and provide for safe and efficient pedestrian movements, in 2010/11;
- A4 (east) corridor (Route 4) – the pivotal Bath Road / West Town Lane junction was remodelled in October 2007, part-funded through Congestion Performance reward funding. This included the renewal of life-expired signal equipment and a new section of bus lane to benefit the Brislington Park and Ride service and other services on this corridor. The remodelling of the York Road/St Lukes Road junction, scheduled for delivery in 2009/10, will substantially reduce queuing traffic blocking back onto the Bath Bridges gyratory and free up traffic flow through this critical area;
- A4 (west) corridor (Route 6) – the Hotwell Road/ Jacob's Well Road roundabout was remodelled in Summer 2008 to provide a signalised gyratory with significant improvements to bus priority and pedestrian facilities. This improves management of this important corridor between the city centre and Cumberland Basin, enabling queuing traffic to be dissipated more quickly and improvements to journey times for park and ride services.
- Avon Ring Road (Route 2) - building on the recent success of roundabout signalisation, the introduction of camera monitoring equipment and dynamic traffic information signs will facilitate further improvements to journey times. This initiative will be complemented by the introduction of a new, frequent express bus service from the

Emerson's Green development to the key North Fringe employment area. New bus links, including the Romney Avenue bus link, will substantially improve journey times for buses to the city centre. These will be provided through planning agreements arising from a major development adjacent to the Hewlett Packard employment site alongside the Ring Road. The A420 Deanery Road, Tower Lane and A431 Longwell Green roundabouts are priorities for signalisation on the Ring Road to improve highway capacity. Implementation on the Deanery Road roundabout was completed in 2009;

- A370 corridor (Route 5) – signalisation of the Brunel Way/Ashton Gate underpass, part funded through adjacent residential development, will enhance network management on this corridor and reduce congestion on Winterstoke Road. Implementation has however been deferred due to the economic downturn impacting on delivery of adjacent residential development.

Expansion of the UTC Network

- 3.15 Further investment in the UTC system will play a crucial role in optimising the performance of the highway network combined with management of each route on a whole corridor basis. This will be delivered through sensitive adjustment to traffic signal phasing to prioritise and accelerate radial flow, reduce rat-running and facilitate bus operation.
- 3.16 The current extent of the UTC system in the West of England core urban area is shown on Figure 3 together with expansion envisaged to be in place by 2011 within current funding levels. Incorporating existing signal junctions into the UTC system will enable key congestion hotspots to be freed up including Junctions 2 and 3 of the M32 and the Muller Road and Winterstoke Road/ Parson Street corridors.
- 3.17 In September 2008 Bristol City Council launched a new Traffic Control Centre. It greatly improves our ability to monitor the road network and react to incidents or undue congestion. Public transport representatives are also present in the centre to deliver a co-ordinated approach to transport across the city. In the future, civil enforcement of moving traffic offences will also be carried out from the control centre.

Figure 3 showing UTC expansion as before

Parking Controls and Enforcement

- 3.18 Bristol City, South Gloucestershire and Bath & North East Somerset Councils have already decriminalised parking enforcement, although North Somerset is now assessing further enforcement options. The recent review of Bristol's Parking Services Team has re-directed resources towards enforcement along key corridors in particular to ensure that bus lanes are kept free of infringing parked vehicles. This will further assist in improving bus journey times and reliability and has been accompanied by an increase in the number of Civil Enforcement Officers on these corridors.

Traffic Management Responsibilities

- 3.19 The 2004 Traffic Management Act places a range of responsibilities on highway authorities to manage the network to secure expeditious movement of traffic. Duties include the following:

- Consideration of the needs of all users of the highway;
- Co-ordination and planning of known events;
- Gathering and providing information;
- Incident management;
- Dealing with traffic growth;
- Working with stakeholders, and
- Providing evidence to demonstrate network management.

- 3.20 Many elements are encompassed through our bus, UTC and parking initiatives particularly in terms of treatment of corridors in an integrated manner. Staff from the four authorities currently attend monthly Traffic Management Act liaison meetings with representatives of the Highways Agency, Avon and Somerset Constabulary and the main bus operator to discuss network events and incident management; implementation of highway maintenance and underground utilities; information/publicity; and on- street initiatives to improve bus reliability and journey times.

Smarter Choices

- 3.21 The JLTP places a strong emphasis on soft measures as an effective means of influencing travel behaviour. Working closely with stakeholders the four Councils have developed a range of robust initiatives to promote sustainable travel behaviour. Further progress up to 2011 will include:

- Working with schools to develop Travel Plans to maintain and where possible increase use of non-car modes for travel to school. Initiatives include provision of cycle and pedestrian infrastructure as part of major school developments, education and publicity, and dynamic initiatives such as Walking Buses and "Walk on Wednesday" events;

- Formulating Travel Plans with major employers including specification of targets; provision of cycling facilities; changing and showering facilities; designation of on-site travel plan co-ordinators; car sharing (associated with the area's network of High Occupancy Vehicle lanes); discount public transport ticketing; management of on-site parking availability; information/publicity; and robust monitoring arrangements. Increasingly planning applications will require the Travel Plan targets to be enforceable with penalty payments to facilitate further travel initiatives should the targets not be met;
- Working towards better information and delivery arrangements for retailers including conditioning use of the Freight Consolidation Centre in relation to significant new retail planning applications;
- Further developing the Freight Consolidation Centre, initially through Council revenue funding whilst moving towards financial self sufficiency;
- Neighbourhood transport initiatives including Personalised Travel Planning schemes associated with significant new residential development and funded through Section 106 agreements;
- Further expansion of the network of car club vehicles and designated on-street parking spaces, again through significant funding streams from residential housing development planning permissions.

Specific Schemes to Exceed the Target

- 3.22 The above schemes have been modelled as being targeted and effective at delivering the West of England urban congestion target through the combination in particular of the A420/ A431 Showcase bus route and the expansion of the UTC network along the main radials feeding into central Bristol. Over and above these is the GBBN Major Scheme, which will play a pivotal role in further improving congestion conditions in the West of England core urban area. GBBN comprises an integrated package of bus infrastructure and highway remodelling in partnership with substantial new investment by the main commercial bus operator. Our modelling shows that the scheme will contribute towards the congestion target being exceeded, enabling it to be reviewed and made more stretching. We are also looking at the likely impact of the Greater Bristol Cycling City initiative.

Greater Bristol Bus Network

- 3.23 The Major Scheme bid for GBBN was submitted to the DfT in July 2005 and received full funding approval in May 2008. The scheme comprises a package of measures along 10 corridors to deliver a significant mode shift from private car onto bus, in particular for commuting journeys

during peak periods. The corridors are illustrated in Figures 4 and 5, six of them coinciding with the routes selected for the congestion target. The measures include:

- Bus and priority vehicle lanes as well as traffic signal upgrades and 'intelligent priority' at junctions, particularly appropriate in congested situations where a conventional bus lane is impractical. All the measures aim to deliver a step change improvement in the reliability and journey times of buses;
- The replacement of 120 vehicles within the First bus fleet with new, low floor, low emission buses;
- New bus stop shelters and 'Real Time' information displays at stops;
- Traffic signal upgrades at key junctions to gain additional capacity through the replacement of expired controller equipment. Signals will be linked through expansion of the UTC network, enabling more sensitive phasing to unlock congestion hotspots and improve traffic flow;
- Additional pedestrian and cycle improvements as part of the route packages to promote further mode shift onto alternative modes. The upgrading of signal equipment will enable pedestrian facilities to be provided at little cost to junction capacity for general traffic.

3.24 The congestion target is based on the projected £61 million Integrated Transport block spending programme. However implementation of GBBN now allows the target to be reviewed and, potentially, stretched. Journey time and reliability improvements for bus travel will enhance its attractiveness and reduce car dependency. This will result, as with the first Showcase routes, in a reduction in car trips on the network and consequent improvement in journey times.

3.25 Full funding approval for GBBN, and the consequent start of the works, has been later than anticipated when submitting the CDP and the schedule of specific schemes has therefore had to be revised. However where possible opportunities to bring forward certain schemes have been taken including bus stop infrastructure and junction upgrades. Appendix 2 outlines the detailed schemes on a route- by- route basis. Of particular significance are:

- M32 corridor – an inbound 24 hour bus lane from south of junction 2 towards Bristol city centre will significantly reduce inbound bus journey times with no reduction in capacity for general traffic. Implementation commenced with the delivery of the first phase in Summer 2008;

- A4018 corridor (Congestion Route 1) – a package of inbound and outbound bus lanes through either highway widening or controls on on-street parking. Junction remodelling with pedestrian upgrades and the replacement of zebra crossings with puffin crossings will also speed up journey times for all vehicles including buses. Completion is scheduled for early 2012;
- A4 corridor (Route 4) – a package of inbound and outbound bus lanes with junction improvements achieved through road widening, on-street parking controls with no effect on capacity for through traffic. Improvements at A4174 junction completed Summer 2009; other implementation scheduled for 2010;
- A432 corridor (Route 8) – new bus lanes, junction remodelling and signalisation and the replacement of zebra crossings with puffins will improve journey times for all vehicles. Completion is scheduled for 2011;
- A4174 Avon Ring Road corridor (Route 2) – remodelling of the critical Abbey Wood roundabout to provide additional internal circulatory capacity and reduce journey times for all vehicles. Further measures to increase capacity for public transport and car sharing between Coldharbour Lane and the Westerleigh Road roundabout, combined with highway widening, will be provided along significant lengths of the ring road. Implementation is scheduled for 2011.
- A37 corridor (Route 7) – junction upgrading and the equipping of junctions with bus detectors will enhance journey times for buses and facilitate mode shift from the private car. Implementation phased from 2008/09;
- A370 corridor (Route 5) – package of bus lanes, highway widening, signal upgrades and traffic management works to improve journey times for all vehicles. Completion is scheduled for 2010/11;
- A369 corridor – package of bus and High Occupancy Vehicle lanes and upgraded traffic signal junctions to maintain highway capacity whilst improving journey times for all vehicles (as the priority lanes will be provided as additional highway capacity). Implementation is scheduled from 2010/11;
- Filton Avenue corridor – a package of bus lanes, highway widening, junction remodelling and pedestrian crossing upgrades, together with a new bus link improving access to the Cribbs Causeway shopping centre, will significantly improve bus reliability and reduce the number of car journeys especially to key employment sites in the North Fringe. Implementation is scheduled for 2011/12;

- A367 corridor – although outside the Bristol urban area, this corridor includes bus lanes and signal upgrades for the Bath to Radstock strategic corridor.

Figure 4 GBBN map

- 3.26 Figures 5 to 14 summarise both the GBBN and Integrated Transport measures on a route- by- route basis together with timescales and responsibility for delivery of individual elements. By consideration of each route as an integrated corridor, individual measures will be co-ordinated to ensure maximum overall benefit for movements towards key destinations.

Cycling City

- 3.27 In June 2008 the DfT appointed Greater Bristol as the UK's first official Cycling City to pioneer innovative ways to increase cycling. An award of £11.4 million from the DfT is being supplemented by match funding to create an investment package of almost £23 million. The aim is to:

- Reduce car use;
- Change the way people think about travelling around the city;
- Positively change attitudes towards cycling;
- Make cycling safer;
- Promote cycling as a natural, realistic and attractive choice, creating a cycling culture;
- Improve air quality;
- Improve community health; and
- Create an internationally recognised cycling city.

- 3.28 The Cycling City project will include:

- Infrastructure, including new greenways and improved on-road routes;
- Smarter choices: school and workplace travel plans, personal web-based travel planner, maps and guides; and
- Bikeability: expanding cycle training opportunities; refresher training, education for inconsiderate cyclists.

Scheme Delivery

- 3.29 Section 5 considers risks to delivery of the congestion target. A range of key stakeholders have been identified to influence rapid and efficient implementation including:

- Executive Members;
- Heads of Service in the four Councils;
- GWE Business West;

- GBBN Project Managers;
- Delivery teams, including traffic and network management, parking and legal services;
- Bus operators;
- Local traders and residents associations;
- Disability and accessibility groups.

3.30 The implementation of the congestion package is predicted to significantly assist the Councils' network management responsibilities under the Traffic Management Act. In particular, the upgrading of traffic signal junctions with modern control equipment will enable far more sensitivity to be applied to the management of the network, amending signal phasing rapidly to address local congestion hotspots and improve network flow. Rapid collection and co-ordination of monitoring data will assist this process.

3.31 Other key PSA targets will also be affected by the CDP as follows:

By 2010, increase the use of public transport (bus and light rail) by more than 12% in England compared with 2010 levels, with growth in every region.

- Bus patronage will be significantly increased by targeting investment on bus showcase corridors. Bristol's first Showcase bus route - between Henbury, the city centre and Hartcliffe - registered a 12% increase in patronage. It is anticipated that GBBN will deliver a similar growth figure for the West of England due to the strategic impact of a wider upgrade across the whole network. Bus satisfaction is also expected to significantly improve.

Reduce the number of people killed and seriously injured in Great Britain in road accidents by 40% and the number of children killed or seriously injured by 50%, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.

- Casualties on the targeted corridors will be reduced through road safety improvements identified through detailed scheme design. This is particularly the case for vulnerable road users, including pedestrians, cyclists and children. The A420 Showcase bus route runs through the Lawrence Hill ward, an area of high deprivation where investment in safety is particularly beneficial.

Improve air quality by meeting the Air Quality Strategy targets for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1,3 butadiene. Reduce greenhouse gas emissions to 12.5% in line with our Kyoto commitment and move towards a 20% reduction in carbon dioxide emissions below 1990 levels by 2010.

- Targeted investment in bus-based infrastructure will attract car drivers onto public transport as demonstrated by surveys undertaken on the A38 Showcase route where one third of new users had previously undertaken the trip by car. Investment in cycle and pedestrian infrastructure will also increase opportunities to travel by non-car modes. In both cases, travel by more sustainable modes will reduce emissions and improve air quality. Improving capacity through renewal of signal equipment and remodelling will improve traffic flow, reduce the proportion of time spent in stationary traffic and thereby reduce emissions.

How CDP Reward Funding is being Spent

3.32 The DfT has allocated the following funding following submission of the CDP and in the light of the progress made towards the target:

Allocation Year	2007/08	2008/09	2009/10
CDP submission	£206,500		
Tranche 1		£206,500	£82,500
Tranche 2		£412,984	£123,895

3.33 Half of the above funding is in the form of capital funding and half revenue. Additional capital funding is, and would continue to be, invested generally in the same corridor-based manner. Whilst it is assumed that the bulk of additional available funding would be capital, further short term revenue funding is also possible and consideration has been given as to how this could be invested.

3.34 Additional Congestion Performance funding will enable an acceleration of junction signal upgrades together with further measures. Junction improvements that would maximise overall benefits for bus and general traffic flow on the main corridors include the following:

- A4 corridor (Route 4) – Bath Road/ West Town Lane junction. (Comprehensive junction replacement, completed in October 2007, included use of a £65,000 Congestion Performance Fund contribution, to deliver highway widening, additional bus priority, further pedestrian facilities and CCTV coverage);
- A4 Corridor (Route 4) - widening of Bath Road outbound from Stockwood Road to the Brislington P&R access;
- A432 Corridor (Route 8) - Cleeve Hill/ Downend Road junction upgrade;
- A37 corridor (Route 7) – Wells Road/ St John's Lane junction. (A £67,000 Congestion Performance Fund contribution to junction upgrading including new equipment and pedestrian facilities was completed in September 2008, complementing and accelerating JLTP and GBBN investment);
- Filton Avenue corridor – additional junction capacity modifications between the A38 and Junction 2 of the M32;

- A370 corridor (Route 5) – further information/ publicity relating to the HOV lane;
- Avon Ring Road corridor (Route 2) – additional network management schemes.

3.35 Detailed design and costing for many of the above schemes is still underway. With this in mind the June 2007 estimate of £2.5 million to deliver the above package is currently being reviewed.

Revenue Funding

3.36 It is important to ensure that priority for revenue funding relates to the effectiveness of a particular project in directly tackling congestion. Using the scheme criteria outlined in Table 3.1 a range of options has been identified which would directly assist in achieving the congestion target and reducing car commuting in particular. These include the following:

- Along all corridors, Congestion Performance Fund revenue funding in 2007/08 and 2008/09 has been invested in augmenting UTC support and day to day management of the network, optimising traffic signal performance and minimising traffic queues at key locations;
- Additional resources for Travel Plan officers for the four authorities to further improve coordination, promotion and information with major employers and achieve additional reductions in car dependency. This crucial part of the `Smarter Choices' agenda is one where significant recent successes can be built on to tackle congestion, particularly with key employers in the city centre and the North Fringe;
- Personalised Travel Planning services to identify and target those travellers who use congested corridors and assist in achieving a mode shift onto bus, cycle and walk modes particularly for peak period commuting trips;
- Further staff resources to maintain and monitor the expanded UTC network;
- Further extension of the Freight Consolidation Centre initiative.

3.37 It should be emphasised that by their nature revenue schemes will require funding over a longer period than for capital schemes. However, it is envisaged that the total cost if all the above options were funded would be in the region of £0.5 million per year.

3.38 As discussed elsewhere in the Plan, the principle of the schemes and strategies contributing to the Congestion Delivery target have been endorsed through the JLTP, in particular the emphasis on bus-based

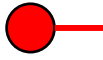
investment targeted on key corridors. These proposals are likely to involve a degree of further statutory and non-statutory consultation (as with most of the schemes and strategies within the JLTP) prior to implementation.

Figure 5: Key to Congestion Route Maps (Figures 6 to 14)



Main junctions

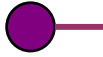
SCHEMES AND MEASURES:



to be provided as part of Greater Bristol Bus Network Major Scheme



to be provided through Integrated Transport block allocations



to be provided partly by Greater Bristol Bus Network Major Scheme and partly through Integrated Transport block allocations

IMPACT AND RISK

Low + to high +++ impact of schemes and measures on achievement of target.

Low ! to high !!! risk to achievement of target

YEAR

Year 1 2006/07 to Year 5 2010/11. Some GBBN schemes will be completed in 2011/12 Year 6 because of delay in major scheme full approval

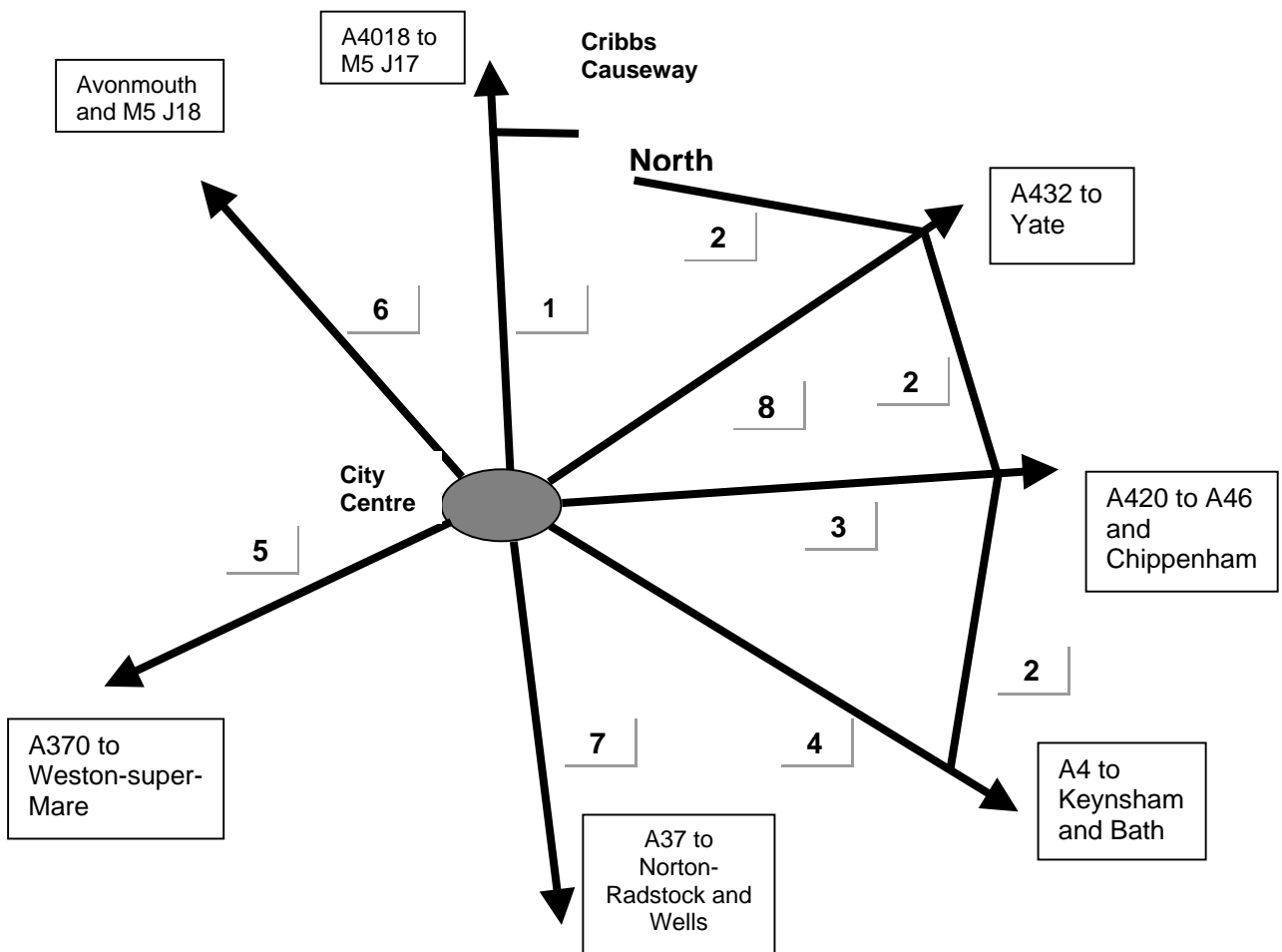
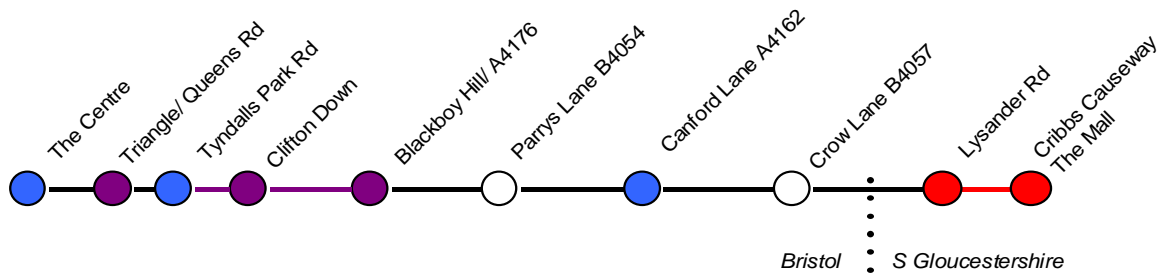


Figure 6: Route 1 A4018 City Centre to Cribbs Causeway



Background and Congestion Issues

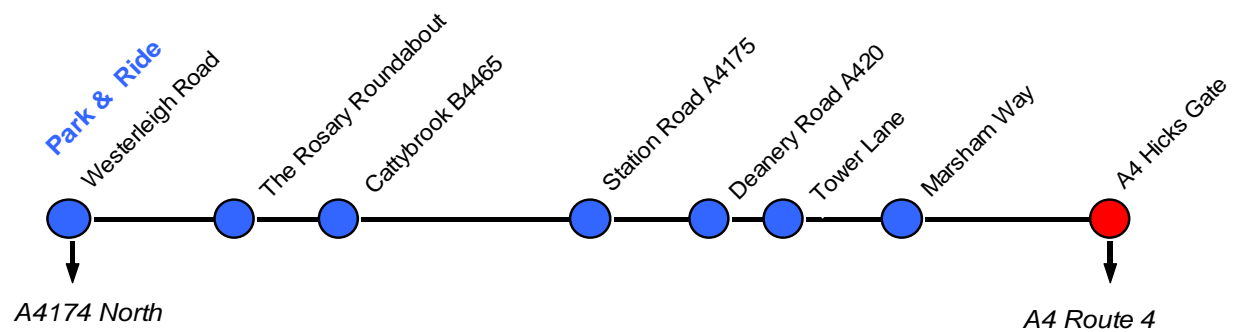
Radial route 10km long passing through residential area of NW Bristol and linking city centre with Cribbs Causeway and M5. Frontage between The Centre and Blackboy Hill/ A4176 junction lined with shops, offices, University of Bristol. Inbound and outbound congestion/ pedestrian conflicts. Peak congestion between The Centre, Blackboy Hill/ A4176 and Parrys Lane. Mainly dual carriageway between Canford Lane junction and Cribbs Causeway. Localised congestion from M5/ Lysander Road to The Mall regional shopping centre at Cribbs Causeway.

Travel Data

Ranging from 13,500 vpd; 125,000 bus px per day

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure <ul style="list-style-type: none"> Remodelling of The Centre GBBN Showcase corridor no. 2: <ul style="list-style-type: none"> ⇒ Clifton Down to Blackboy Hill: bus lane, bus gate ⇒ Blackboy Hill to Parrys Lane: bus lane ⇒ Lysander Road and Cribbs Causeway: bus lanes ⇒ Shelters, RTI, new vehicles 	+++ !!	<ul style="list-style-type: none"> BCC 4 UAs, First 	<ul style="list-style-type: none"> post 5 ⇒ 5-6 ⇒ 5-6 ⇒ 2-5 ⇒ 3-5
Signal and Junction Upgrades <ul style="list-style-type: none"> UTMC extensions Clifton Triangle to Blackboy Hill and Canford Lane Tyndalls Park junction remodelling Upgraded signals at Clifton Triangle/ Queens Road (GBBN) New signals at Clifton Down and Blackboy Hill junctions (GBBN) 	+++ !	<ul style="list-style-type: none"> BCC BCC 4 UAs 4 UAs 	<ul style="list-style-type: none"> 5 4-5 5-6 5-6
Parking Enforcement and Control <ul style="list-style-type: none"> Clifton Triangle and Clifton Down to Blackboy Hill: parking/ loading restrictions/ provision of bays (GBBN) Bus lane enforcement Parking decriminalisation 	+++ !	<ul style="list-style-type: none"> BCC BCC SGC 	<ul style="list-style-type: none"> 5-6 2 2
Traffic Management Act <ul style="list-style-type: none"> Whole route but special focus on Blackboy Hill to The Centre: 	+++ !	<ul style="list-style-type: none"> BCC, SGC, HA, police, First 	<ul style="list-style-type: none"> Ongoing
Smarter Choices <ul style="list-style-type: none"> Lysander Road: new footways (GBBN) Blackboy Hill/ Clifton Down/ Clifton Triangle: new signalised crossings (GBBN) Cycle facilities Blackboy Hill to The Centre (GBBN) Workplace travel plans: Cribbs Causeway, University of Bristol and other major employers School travel plans: major private schools along route. Clifton Down station: Severn Beach Line local rail service enhanced frequencies Cycling City scheme: Henbury to Cribbs Causeway 	+++ / + ! / !	<ul style="list-style-type: none"> 4 UAs 4 UAs 4 UAs BCC, SGC, employers BCC, SGC, schools First, BCC SGC 	<ul style="list-style-type: none"> 2-4 5-6 5-6 Ongoing Ongoing 3 5

Figure 7: Route 2 A4174 Ring Road East



Background and Congestion Issues

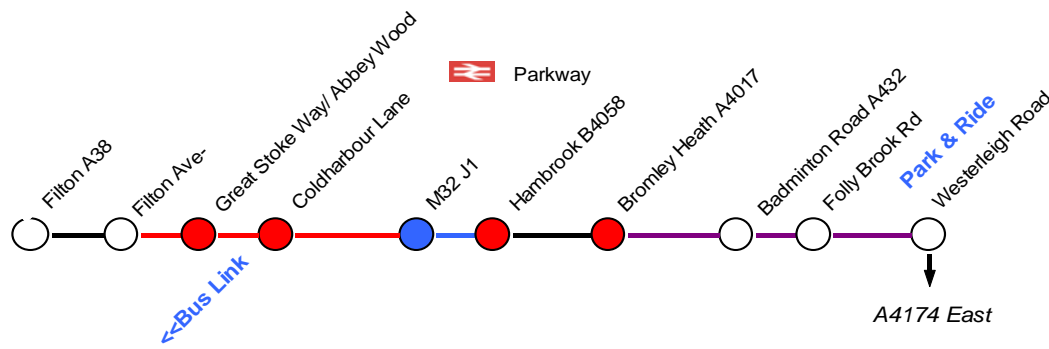
Eastern 9km arm of orbital route serving extensive industrial and commercial premises. Strategic dual carriageway link between A4 and Emersons Green. Peak congestion at junctions.

Travel Data

Traffic varies from 28,000 vpd to 32,000 vpd. Not currently served by bus services

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> Emerson's Green P&R and new bus services 	+++ !!	<ul style="list-style-type: none"> SGC, developers 	<ul style="list-style-type: none"> 5
Signal and Junction Upgrades <ul style="list-style-type: none"> A4 Hicks Gate signalisation (GBBN) New signals at Deanery Road, Tower Lane and Marsham Way junctions UTMC extension Westerleigh Road to A4 Hicks Gate Camera monitoring Traffic information signs 	+++ !	<ul style="list-style-type: none"> B&NES SGC SGC, BCC SGC SGC 	<ul style="list-style-type: none"> 4 3-5 5 3-5 3-5
Parking Enforcement and Control <ul style="list-style-type: none"> Decriminalisation of parking 	+++ !	<ul style="list-style-type: none"> SGC 	<ul style="list-style-type: none"> 2
Traffic Management Act <ul style="list-style-type: none"> Whole route but focus on Hicks Gate 	+++ !	<ul style="list-style-type: none"> SGC, HA, police 	<ul style="list-style-type: none"> Ongoing
Smarter Choices <ul style="list-style-type: none"> Workplace travel plans: major employers at Emersons Green, incl Science Park, Longwell Green School travel plans: schools at Cadbury Heath, Warmley, Mangotsfield Broadmead Freight Consolidation Scheme, Emersons Green Cycling City schemes: Warmley cycle links to Railway Path; Emerson's Green Science Park links 	++/+ ! / !	<ul style="list-style-type: none"> SGC, employers SGC, schools BCC SGC 	<ul style="list-style-type: none"> Ongoing Ongoing Ongoing 5

Figure 8: Route 2 A4174 Ring Road North



Background and Congestion Issues

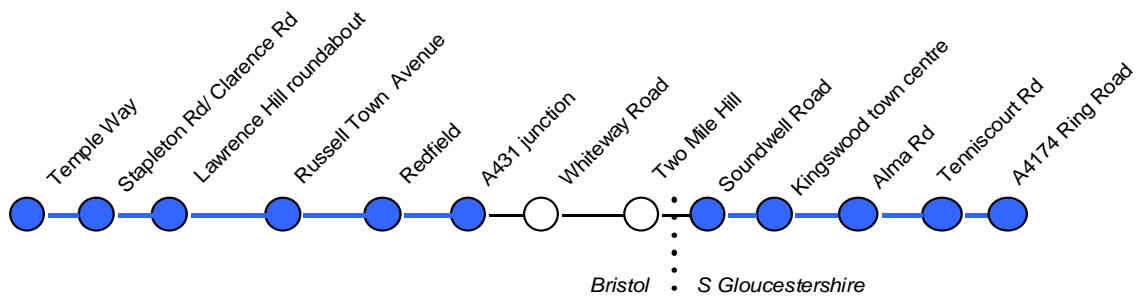
Northern 7.5km dual carriageway arm of orbital route serving extensive industrial and commercial premises, the Ministry of Defence at Abbey Wood, University of West of England, Parkway station and a range of other activities in North Fringe. Strategic link between A38, M32 (M4/M5) and Emersons Green. Peak congestion at junctions; significant delays between Hambrook (Bristol Road B4058) crossroads and Coldharbour Lane.

Travel Data

33,300 vpd between Coldharbour Road and Bristol Road B4058; 7,000 bus px per day.

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> • GBBN Showcase corridor 7: <ul style="list-style-type: none"> ⇒ Filton Avenue, Great Stoke Way, Coldharbour Lane additional bus lanes ⇒ Romney Avenue Bus Link and bus gate ⇒ HOV lane Coldharbour Lane to M32 J1 (GBBN) and Bromley Heath to Westerleigh Road (S Glos) ⇒ Shelters, RTI, new vehicles • Emersons Green P&R and new bus services 	+++ !!	<ul style="list-style-type: none"> • 4 UAs, First • SGC, developers 	<ul style="list-style-type: none"> ⇒ 3, 5 ⇒ 5 ⇒ 5-6 ⇒ 5-6 • 3-4
Signal and Junction Upgrades <ul style="list-style-type: none"> • Enhanced signals/ SVD at Great Stoke Way, Coldharbour Lane • Enhanced signals/ SVD at Hambrook and Bromley Heath (GBBN) • M32 J1 remodelling (S Glos) • Camera monitoring [S Glos] • Traffic information signs [S Glos] 	+++ !	<ul style="list-style-type: none"> • 4 UAs • SGC • SGC, HA • SGC • SGC 	<ul style="list-style-type: none"> • 5-6 • 3 • 3 • 3-5 • 3-5
Parking Enforcement and Control <ul style="list-style-type: none"> • Decriminalisation of parking 	+++ !	<ul style="list-style-type: none"> • SGC 	<ul style="list-style-type: none"> • 2
Traffic Management Act <ul style="list-style-type: none"> • Whole route but special focus on M32 J1 	+++ !	<ul style="list-style-type: none"> • SGC, HA, police 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> • new footway near Coldharbour Lane (GBBN) • Upgraded pedestrian crossings at M32 J1 (GBBN) • Cycle facilities: Great Stoke Way, M32 J1 (GBBN) • Workplace and school travel plans: major employers in North Fringe, colleges and schools along corridor • Local rail services to/ from Parkway station • Cycling City schemes: north/ west/ south links to UWE; Patchway/Parkway station; Ring Road path improvements and links 	++ / + ! / !	<ul style="list-style-type: none"> • 4 UAs • 4 UAs • 4 UAs • SGC, schools employers • Network Rail, First, 4UAs • SGC 	<ul style="list-style-type: none"> • 5-6 • 3 • 3 • Ongoing • Ongoing • 5

Figure 9: Route 3 A420 City Centre to Kingswood



Background and Congestion Issues

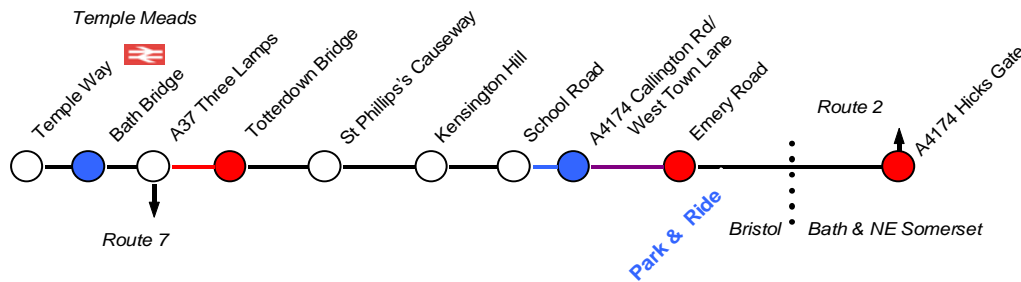
Radial route 6.5km long linking city centre with Kingswood and the A4174 Ring Road. Frontage between Temple Way and Redfield lined with shops and offices. Passes through Kingswood town centre. Traffic/ pedestrian conflicts. Peak congestion between Temple Way and Whiteway Road.

Travel Data

14,000 vpd at Ring Road junction 21,000 vpd at Lawrence Hill; served by bus services 41-44 from Kingswood, Cadbury Heath, Warmley and Hanham, 332 from Bath and 635 to Chippenham

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> A420 Showcase scheme: <ul style="list-style-type: none"> ⇒ Temple Way to Stapleton Rd junction (Old Market), bus lanes ⇒ Stapleton Rd junction to A431 junction: bus lane Shelters, RTI, new vehicles 	+ + + !!	<ul style="list-style-type: none"> ⇒ BCC ⇒ BCC • BCC, SGC, First 	<ul style="list-style-type: none"> ⇒ 2 ⇒ 2 • 2
Signal and Junction Upgrades <ul style="list-style-type: none"> Upgraded signals at Stapleton/ Clarence Rd, Russell Town Avenue and A431 junctions UTMC extension Soundwell Road to A4174 Ring Road 	+ + + !!	<ul style="list-style-type: none"> • BCC • SGC 	<ul style="list-style-type: none"> • 2 • 3-4
Parking Enforcement and Control <ul style="list-style-type: none"> Parking/ loading restrictions/ provision of bays: Old Market area, Church Road Redfield Bus lane enforcement Decriminalisation of parking 	+ + + !!	<ul style="list-style-type: none"> • BCC • BCC • SGC 	<ul style="list-style-type: none"> • 2 • 2 • 2
Traffic Management Act <ul style="list-style-type: none"> Whole route but special focus on Old Market, Lawrence Hill, Church Road and Kingswood town centre 	+ + + !!	<ul style="list-style-type: none"> • BCC, SGC, police, First 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> Enhanced pedestrian areas/ new footways at Old Market, Clarence Rd, Lawrence Hill, Church Road, A431 junction Cycle facilities: Old Market area, Lawrence Hill roundabout, Church Road, A431 junction Workplace travel plans: major city centre employers School travel plans in Kingswood and Redfield Lawrence Hill station: Severn Beach Line local rail service enhanced frequencies Cycling City schemes: improved links to Lawrence Hill; Meads Reach bridge 	+ +/ + ! / !	<ul style="list-style-type: none"> • BCC • BCC • BCC, SGC, employers • BCC, SGC, schools, colleges • BCC, FirstGW • BCC, developer 	<ul style="list-style-type: none"> • 2 • 2 • Ongoing • Ongoing • 3 • 3

Figure 10: Route 4 A4 East City Centre to Keynsham/ Bath



Background and Congestion Issues

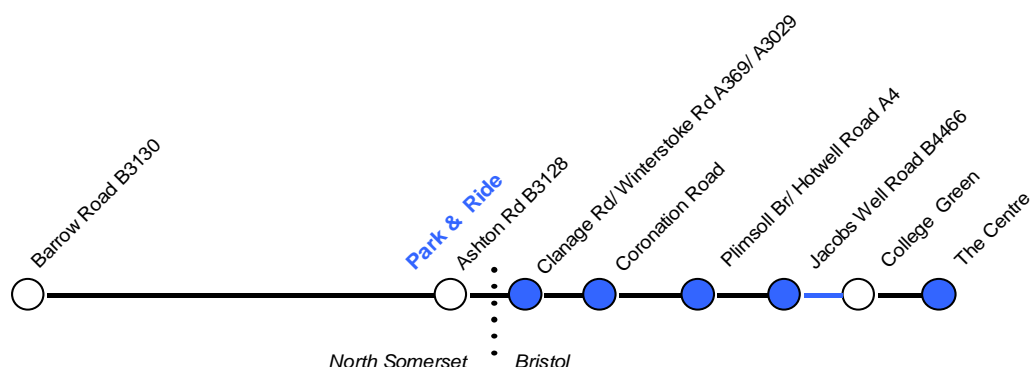
Radial route 5.5km long linking city centre with the A4174 Ring Road, Keynsham and Bath. Passes through Brislington village centre. Inbound and outbound congestion/ pedestrian conflicts. Peak congestion between Temple Way and Three Lamps and St Phillip's Causeway and A4174 Ring Road. Mainly single but some dual carriageway.

Travel Data

24,000 vpd east of Three Lamps, 31,000 vpd at A4174 roundabout; 25,000 Bath/ Keynsham bus px per day + Brislington P&R + city services between Kensington Hill and Temple Way + route 6 services between A37 Three Lamps and Temple Way.

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> GBBN Showcase corridor 3: <ul style="list-style-type: none"> ⇒ A4174 roundabout (Hicks Gate), Callington Road and Totterdown Bridge: additional bus lanes ⇒ Emery Road bus gate ⇒ Shelters, RTI, new vehicles Brislington P&R extension, enhanced bus services 	+ + + !!	<ul style="list-style-type: none"> 4UAs, First BCC 	⇒ 4, 5 ⇒ 5 ⇒ 4 • 3-5
Signal and Junction Upgrades <ul style="list-style-type: none"> Remodelling/ upgraded signals at Callington Rd/ West Town Lane junction New signals at A4174 roundabout (Hicks Gate) (GBBN) Enhanced signals at A4174 Callington Road and Totterdown Bridge (GBBN) Remodelling of Bath Bridge roundabouts 	+ + + !	<ul style="list-style-type: none"> BCC 4UAs 4UAs BCC 	<ul style="list-style-type: none"> • 2 • 4 • 2,5 • 4
Parking Enforcement and Control <ul style="list-style-type: none"> Bus lane enforcement Parking enforcement in Brislington village 	+ + + !	<ul style="list-style-type: none"> B&NES, BCC BCC 	<ul style="list-style-type: none"> • 3 • Ongoing
Traffic Management Act <ul style="list-style-type: none"> Whole route 	+ + + !	<ul style="list-style-type: none"> B&NES, BCC, police, First 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> Upgraded pedestrian crossings at Emery Road and Temple Meads (GBBN) Pelican crossing converted to puffin near Three Lamps (GBBN) Cycle facilities A4174 Emery Rd, T Meads (GBBN) Workplace and school travel plans: city centre and employers, colleges and schools along route Local rail services to/ from Temple Meads station Cycling City schemes: Callington Road Link; Temple Gate improvements 	+ + / + ! / !	<ul style="list-style-type: none"> 4UAs 4UAs 4UAs B&NES, SGC 4UAs, Network Rail, First BCC 	<ul style="list-style-type: none"> • 4 • 4 • 4 • Ongoing • Ongoing • 5

Figure 11: Route 5 A370 City Centre to Weston-super-Mare



Background and Congestion Issues

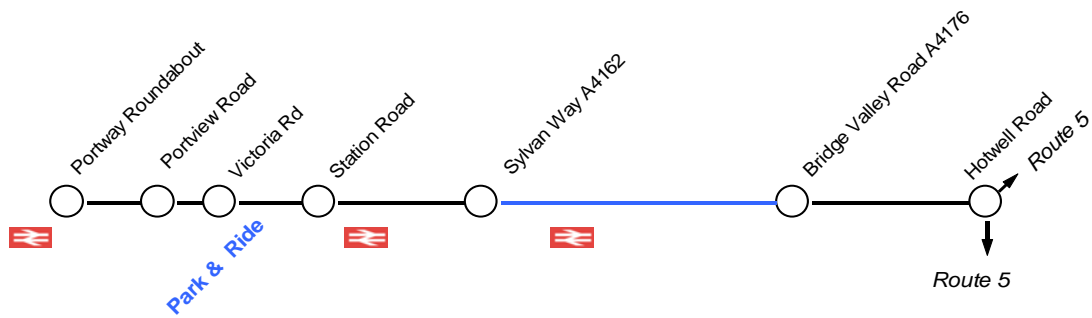
8km long radial route crossing River Avon and linking city centre with North Somerset towns and villages and with Weston-super-Mare. Serves Long Ashton park and ride off Ashton Road B3128. Dual carriageway Long Ashton Bypass between Ashton Road and Barrow Road. Peak congestion along full length.

Travel Data

20,000 vpd on Long Ashton Bypass; 10,200 bus px per day + Long Ashton P&R.

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> Jacobs Well Road, additional bus lane GBBN Showcase corridor 8: shelters, RTI, new vehicles Long Ashton park and ride enhanced bus services 	+ + + !!	<ul style="list-style-type: none"> BCC, developers 4UAs, First BCC 	<ul style="list-style-type: none"> 3 3-5 2
Signal and Junction Upgrades <ul style="list-style-type: none"> Upgraded signals at Plimsoll Bridge Jacobs Well Road: junction remodelling UTMC extension Winterstoke Road to Coronation Road 	+ + + !	<ul style="list-style-type: none"> BCC BCC, developers BCC 	<ul style="list-style-type: none"> 5 3 5
Parking Enforcement and Control <ul style="list-style-type: none"> Bus lane enforcement Plimsoll Bridge to The Centre 	+ + + !	<ul style="list-style-type: none"> BCC 	<ul style="list-style-type: none"> 2
Traffic Management Act <ul style="list-style-type: none"> Focus on HOV lane between Barrow Road and Ashton Road and on urban approach to The Centre 	+ + + !	<ul style="list-style-type: none"> BCC, N Somerset 	<ul style="list-style-type: none"> Ongoing
Smarter Choices <ul style="list-style-type: none"> Workplace travel plans: major employers with N Somerset catchment Local rail services between Weston-super-Mare, Worle, Yatton, Nailsea & Backwell and Temple Meads Cycling City schemes: Prince St bridge shuttle working; Cumberland Basin improvements; Long Ashton Cycle Path Nailsea-Bristol city centre <i>Connect2</i> cycleway 	+ + / + !!!	<ul style="list-style-type: none"> BCC 4UAs, First, Network Rail BCC, NSC NSC, BCC, Sustrans 	<ul style="list-style-type: none"> Ongoing Ongoing 3-5 5

Figure 12: Route 6 A4 West City Centre to Avonmouth and M5



Background and Congestion Issues

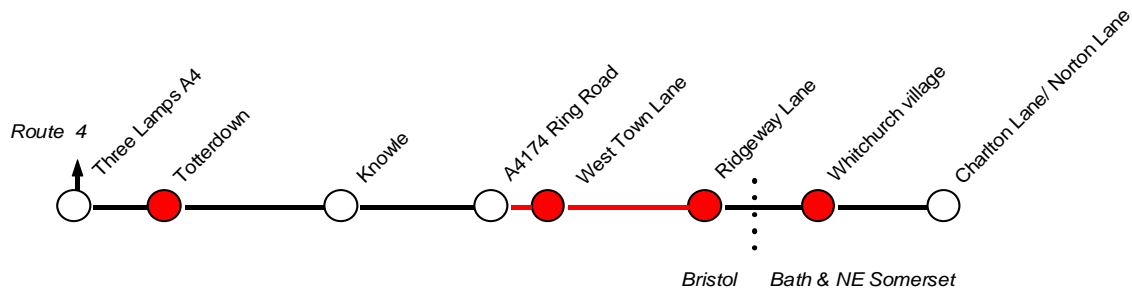
Portway radial route 8km in length and linking city centre with Avonmouth, Port of Bristol and M5. Peak congestion between Hotwells Road and Sylvan Way.

Travel Data

20,000 vpd; served by 695 bus service from Portishead and Portbury P&R service

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> • Extension of bus lane between Sylvan Way and Bridge Valley Road • Jacobs Wells Road, additional bus lane (Route 5) • Portway Park and ride service enhancement and site extension 	+ + + !!	<ul style="list-style-type: none"> • BCC • BCC, developers • BCC 	<ul style="list-style-type: none"> • 3 • 3 • 2-3
Signal and Junction Upgrades <ul style="list-style-type: none"> • Jacobs Wells Road, junction remodelling (Route 5) 	+ + + !	<ul style="list-style-type: none"> • BCC, developers 	<ul style="list-style-type: none"> • 3
Parking Enforcement and Control <ul style="list-style-type: none"> • Bus lane enforcement 	+ + + !	<ul style="list-style-type: none"> • BCC 	<ul style="list-style-type: none"> • 2
Traffic Management Act <ul style="list-style-type: none"> • Focus on approach to Plimsoll Bridge and Hotwell Road 	+ + + !	<ul style="list-style-type: none"> • BCC 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> • Workplace travel plans: major employers at Avonmouth and in city centre • Avonmouth, Shirehampton, Sea Mills stations: Severn Beach Line local rail service enhanced frequencies 	+ + / + ! / !	<ul style="list-style-type: none"> • BCC, employers • BCC, First 	<ul style="list-style-type: none"> • Ongoing • 3

Figure 13: Route 7 A37 City Centre to Whitchurch/ Norton-Radstock and Wells



Background and Congestion Issues

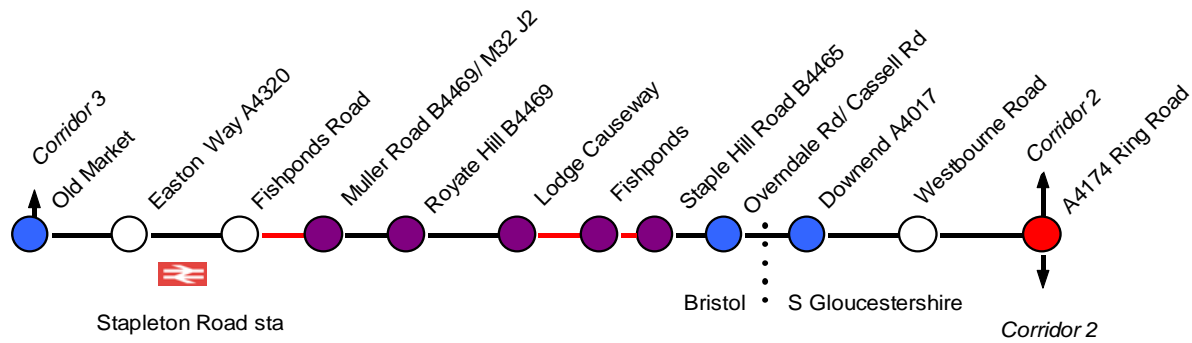
Wells Road radial route 5.5km in length passing through residential areas in SE Bristol and linking city centre with Whitchurch and south to Norton-Radstock, Wells and other Somerset towns. Inbound and outbound congestion/ pedestrian conflicts. Peak congestion between Three Lamps and Knowle and between New Fosseway Road and Whitchurch village. Part dual carriageway but mainly single.

Travel Data

13,5000 vpd at Whitchurch, 15,000 vpd between A4174 and Knowle; 62,000 bus px per day

Schemes and Measures	Impact + Risk !	'Owner'	Year
Bus Infrastructure <ul style="list-style-type: none"> • GBBN Showcase corridor 6: <ul style="list-style-type: none"> ⇒ New vehicles ⇒ Ridgeway Lane to A4174 Ring Road: new bus lane/ junction upgrades ⇒ Shelters, RTI, 	+ + + !!	<ul style="list-style-type: none"> • 4UAs, First 	<ul style="list-style-type: none"> ⇒ 4 ⇒ 4-5 ⇒ 5-6
Signal and Junction Upgrades <ul style="list-style-type: none"> • MOVA at Whitchurch village • Upgraded signals Ridgeway Lane • Totterdown: revision to junction 	+ + + !	<ul style="list-style-type: none"> • 4UAs • 4UAs • BCC 	<ul style="list-style-type: none"> • 2 • 3 • 2
Parking Enforcement and Control <ul style="list-style-type: none"> • Bus lane enforcement 	+ + + !	<ul style="list-style-type: none"> • B&NES, BCC, First 	<ul style="list-style-type: none"> • 2
Traffic Management Act <ul style="list-style-type: none"> • Focus on Whitchurch village and Knowle 	+ + + !	<ul style="list-style-type: none"> • B&NES, BCC, police 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> • Petherton Road: single pelican converted to dual (GBBN) • Totterdown: pelican converted to puffin (GBBN) • Cycle facilities Ridgeway Lane, West Town Lane, Three Lamps (GBBN) • Workplace travel plans: major city centre employers with B&NES catchment • School travel plans: schools in Whitchurch, Hengrove, Knowle • Cycling City Whitchurch Railway Path enhancement 	+ + / + ! / !	<ul style="list-style-type: none"> • 4UAs • 4UAs • 4UAs • BCC, employers • B&NES, BCC • BCC 	<ul style="list-style-type: none"> • 4 • 4 • 4 • Ongoing • Ongoing • 5

Figure 14: Route 8 A432 City Centre to Yate



Background and Congestion Issues

9km radial route passing through residential areas in NE Bristol and South Gloucestershire and linking city centre with Fishponds, Downend and Yate. Significant shop frontages, numerous junctions. Inbound and outbound congestion/ pedestrian conflicts. Substantial peak congestion between Old Market and Easton Way and between Muller Road and Fishponds.

Travel Data

27,000 vpd east of Muller Road, 17,000 vpd north of A4174; 58,000 bus px per day.

Schemes and Measures	Impact + Risk !	'Owner'	Timeline
Bus Infrastructure/ Park and Ride <ul style="list-style-type: none"> • GBBN Showcase corridor 5: <ul style="list-style-type: none"> ⇒ Fishponds Road: new bus lanes ⇒ Shelters, RTI ⇒ New vehicles • Badminton Rd new bus lane N of A4174 	+++ !!	<ul style="list-style-type: none"> • 4UAs, First • SGC 	<ul style="list-style-type: none"> ⇒ 5 ⇒ 5 ⇒ 4 • 1
Signal and Junction Upgrades <ul style="list-style-type: none"> • New signals at Fishponds, Muller Rd, Robertson Rd, Manor Rd and Hockeys Lane junctions; enhanced signals at Royate Hill, Lodge Causeway and Staple Hill Rd (GBBN) 	+++ !	<ul style="list-style-type: none"> • 4UAs 	<ul style="list-style-type: none"> • 5
Parking Enforcement and Control <ul style="list-style-type: none"> • Fishponds: parking/ loading restrictions/ provision of bays (GBBN) • Decriminalisation of parking/ bus lane enforcement • Extension of UTMC, Stapleton Rd to Muller Rd 	+++ !	<ul style="list-style-type: none"> • 4UAs • SGC/BCC • BCC 	<ul style="list-style-type: none"> • 5 • 2 • 4
Traffic Management Act <ul style="list-style-type: none"> • Whole route but focus on shopping frontages at Stapleton Road, Fishponds at Downend 	+++ !	<ul style="list-style-type: none"> • BCC, SGC, police, First 	<ul style="list-style-type: none"> • Ongoing
Smarter Choices <ul style="list-style-type: none"> • Convert zebras to pelicans, Stapleton Rd station, Muller Rd, Lodge Causeway, Fishponds (GBBN). New puffin at Fishponds. New footway Muller Rd • Cycle facilities Fishponds Road, Royate Hill, Lodge Causeway, Staple Hill Road (GBBN) • Workplace travel plans: major employers in city centre and Emersons Green, UWE Glenside, Blackberry Hill hospital • School travel plans: Downend, Fishponds, Stapleton. • Enhanced local rail services on Severn Beach Line at Stapleton Road station • Cycling City schemes: Eastville Park link; improved links to Railway Path; River St link; Yate Spur 	++/+ ! / !	<ul style="list-style-type: none"> • 4UAs • 4UAs • BCC, SGC, employers • BCC, SGC, schools • BCC, First • BCC, SGC 	<ul style="list-style-type: none"> • 5 • 5 • Ongoing • Ongoing • Ongoing • 3-5

4. Governance and Reporting Arrangements

- 4.1 The CDP forms a key component of the transport strategy for the sub-region. It builds upon the successful joint working that enabled us to submit the JLTP and the GBBN Major Scheme bid and develop robust governance and management arrangements for the delivery and operation of the schemes outlined in the Plan.

Decision Making and Endorsement

- 4.2 Political approval for the policies and approach set out in the CDP was achieved in principle as part of the JLTP endorsed by all four Councils in 2006.
- 4.3 The production and updating of the CDP has been approved at officer level by the four Heads of Service. This endorsement has included a commitment to ensure that available funding is targeted to specific corridor schemes as set out in Section 3 in order to most effectively meet the congestion target.
- 4.4 The DfT recognised that it was not possible to formally endorse the CDP within the submission deadline specified during 2007. However, the four Executive Members have subsequently been consulted and have endorsed the Plan. In addition, the sub-region's informal Joint Scrutiny group was also consulted on the Plan (since formalised into a Joint Scrutiny Committee).
- 4.5 The 2009 update has since been endorsed by the new Joint Transport Executive Committee, outlined in more detail in 4.9.

Ownership of the Plan

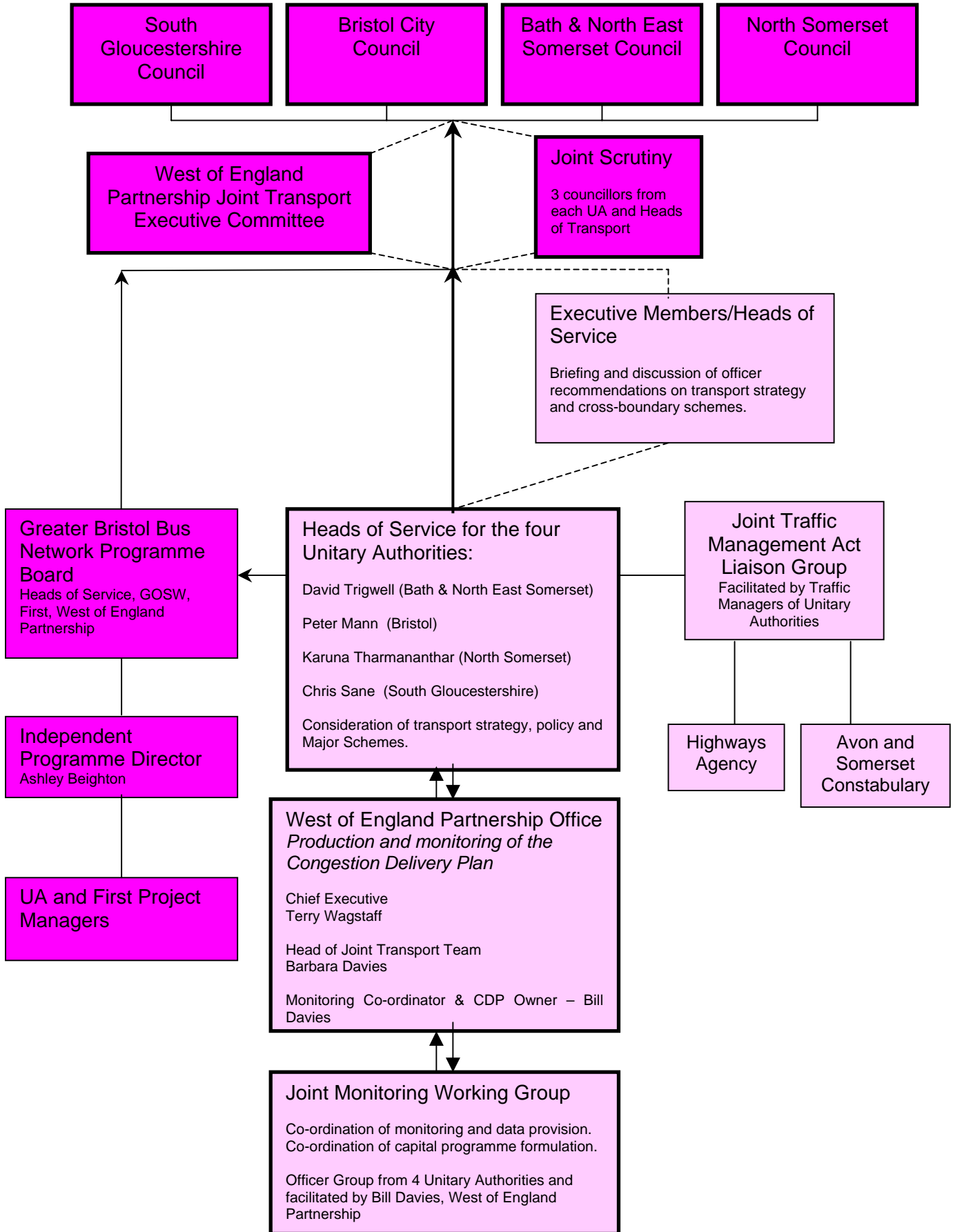
- 4.6 The CDP has been produced by the Joint Transport Team of the West of England Partnership on behalf of the four Councils. The Plan shares the same delivery governance arrangements as the JLTP with implementation being achieved through close co-operation between the four Councils. Commitment to the infrastructure elements of the GBBN Major Scheme is being delivered through a Memorandum of Understanding between the four Councils and the major commercial bus operator, together with supporting Quality Bus Partnerships. There is a further separate agreement between the four Councils to formulate the governance and programme management arrangements.
- 4.7 The Plan is owned by the Joint Transport Team within the West of England Partnership. Bill Davies, Transport Policy Team Leader, is responsible for monitoring Plan delivery, managing ongoing performance and advising Heads of Service and Executive Members on progress and essential mitigation to ensure delivery is achieved within the Plan timescale. In this way, as discussed in more detail

below, project managers within the four Councils will be held to account and decisions taken quickly and efficiently.

Governance and Working Arrangements

- 4.8 The governance and working arrangements for the Plan have been formulated to build on those responsible for the successful formulation and submission of the JLTP. They are also closely linked to the successful governance and project management arrangements associated with GBBN. These arrangements provide the vehicle to ensure that the schemes and strategies are endorsed at a strategic level and amendments to the scheme programme highlighted and initiated early on to minimise the potential for the trajectory to be missed.
- 4.9 The overall governance structure is shown in Figure 15 and has been considerably strengthened since submission of the CDP with the advent of the Joint Transport Executive Committee in April 2009. This has reinforced accountability through collective decision-making with the Joint Committee recommending policy and budgetary matters to the Cabinets and Councils. Once approved the delivery of these policies and investment are then overseen by the Joint Committee; the Committee's authority is vested through formal delegations by each Executive and the underpinning formal Joint (Legal) Working Arrangements.
- 4.10 The West of England Partnership is responsible for the monitoring of the Plan and works closely with officers of the Joint Monitoring Working Group, which meets at least quarterly. Twice a year this group will consider progress of the congestion indicator, capital programmes and spend. The Joint Monitoring Working Group is facilitated by the Joint Transport Team to ensure strategic co-ordination of JLTP monitoring and reporting arrangements.
- 4.11 The four Heads of Service meet on a fortnightly basis and this will provide the basis for strategic co-ordination, liaison and monitoring of the Plan programme. The Joint Transport Team will advise the four Heads of Service through this forum on the progress of the Plan. Advice will also be given at six monthly intervals on the need for modification to the programme. More frequent meetings will provide the opportunity for short term issues to be raised and mitigated rapidly as required. Close links are maintained with the governance and working arrangements for GBBN, also shown in Figure 15, to ensure consistency in terms of implementation of infrastructure, timescales and monitoring.
- 4.12 The Heads of Service in turn liaise closely with the four Executive Members. As well as internal reporting arrangements, progress on the Plan will be reported to the Joint Transport Executive Committee.

Figure 15: CDP Governance & Working Arrangements



- 4.13 Responsibility for implementation of the Plan's schemes and strategies rests with the four Councils. Decision making on local scheme details will also be at this level with the four capital programmes being endorsed through the Cabinet procedure. The individual capital programmes are formulated in close liaison with the Joint Transport Team. Any divergence from the spend needed to deliver the Plan's trajectory will be highlighted through the Heads of Service and Executive Members and remedied prior to any formal enforcement. Capital programme spending is closely monitored and updates reported through the Plan management structure; unplanned divergence in spending will be addressed as soon as is practical.
- 4.14 The majority of infrastructure measures included in the Plan are considered to be relatively straightforward involving low risk work methods and are identical to the types of scheme that the Councils have been delivering in recent years. Nonetheless, the simplicity of their engineering does not mean the measures will be delivered without careful planning, management and consultation.
- 4.15 Close links are maintained with the frameworks for delivering the Major Scheme programme and the Traffic Management Act network management duty. The role of the Programme Steering Group is of strategic co-ordination, liaison and monitoring on a quarterly basis of the Major Scheme programme. Representation includes the four Executive Members who are kept informed of progress. The GBBN Programme Board guides and steers the direction of that programme and is responsible for its delivery. The GBBN project also has an Independent Programme Director, individual project managers resourced by the Councils and Joint Transport Team and an Evaluation Manager. This structure is supported by a comprehensive Programme Handbook ensuring that the project is managed to a high level. There are formal management and progress reporting procedures to ensure its delivery to time and within budget.
- 4.16 A key risk to governance, as outlined under element 19 of the risk register, is the potential for the framework to fragment should future priorities become more localised and such concerns be perceived to outweigh the benefits of strategic transport co-ordination. All four Executive Members are committed to joint working on strategic transport matters and this has been formalised through the formation of the Joint Transport Executive Committee. The range of joint working frameworks has been progressively implemented and strengthened since 2005. These frameworks work successfully and provide clear opportunities for detailed and transparent dialogue between authorities to minimise the possibility of fragmentation. The dominance in the CDP of monitoring, schemes and impact in one authority area (Bristol City) will also minimise the impact of fragmentation on this indicator.

5. Risk Management

- 5.1 A range of factors has been identified that represent a significant risk to the achievement of the congestion target. Appropriate and achievable mitigation measures are outlined in the Risk Register in Table 5.1. The owners of each risk with responsibility to mitigate will liaise closely with the Joint Transport Team who have overall risk ownership in terms of monitoring and mitigation advice. Joint meetings between Heads of Service and the Joint Transport Team take place at fortnightly intervals to facilitate this process.
- 5.2 This register will be reviewed at least quarterly, closely linked to review of the risk register for the GBBN (a standing item at the GBBN Programme Board) and expanded if necessary to keep track of risks and ensure early and efficient mitigation. The quarterly review of this register is intentionally more frequent than that for reporting on progression towards the target trajectory as outlined in Section 4. This is because several of the identified risks may occur at short notice (e.g. bus fare increases or frequency reductions or unexpected delays in implementation of GBBN schemes) and will require more immediate consideration of mitigation measures and/or assessment of the implication for achievement of the target. The governance and working arrangements provide opportunities to ensure that unforeseen events are raised and considered quickly and efficiently.

Table 5.1 Risk Register

No	Risk Description	Risk Owner	Inherent Risk			Mitigation	Residual Risk		
			Impact	Likelihood	Exposure		Impact	Likelihood	Exposure
1	Further employment in peripheral locations difficult to serve by bus continues to increase reliance on the private car.	Peter Mann (Service Director for Transport BCC), David Trigwell (Assistant Director, Customer Services, B&NES), Chris Sane (Head of Transportation, SGC), Karuna Tharmananthar (Assistant Director, Development and Environment, NSC).	Medium	Low	Low	The Councils will work to ensure that new employment sites and housing allocations are more closely related through the Local Plan and Local Development Framework processes. Employment proposals in areas not endorsed through these processes will not be permitted.	Low	Low	Low
2	Additional car trips arising from housing growth in the area increase congestion further than anticipated.	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	High	Med	High	All four Councils will seek to increase off-site transport contributions to address the impact of all new developments and mitigate its impact. In addition, further use and monitoring of residential Travel Plans will further encourage sustainable transport choices arising from new development and reduce congestion. The current economic downturn will also affect	High	Low	Med

						housing construction during the Plan period.			
3	Progress towards the target is slower than expected	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	High	Med	High	As set out in Section 4, progress will be reported at 6- month intervals to the Heads of Service with opportunities for more frequent briefings on urgent items. The Heads of Service will consider the reasons for underperformance and implications for the trajectory and resolve actions for implementation at the authority level. Current progress towards the target is encouraging.	Med	Med	Med
4	Competing priorities (eg in order to improve road safety) reduce funding available for congestion reduction.	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	Med	Med	Med	Corridor-based spending on decongestion schemes, such as Showcase bus routes, includes a range of wider benefits. Emphasis on road safety through detailed design and safety auditing likely to cover other priorities to a significant extent.	Low	Low	Low
5	Insufficient public funding is available to deliver schemes to meet the target.	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	High	Low	Med	The target has been assessed as a result of transport modelling to predict an ambitious yet achievable target assuming likely available funding. All reasonable efforts will be made to secure additional funding streams.	Med	Low	Low
6	Level of expected developer contributions reduces due to economic downturn	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	Low	High	Low	Whilst achievement and exceedance of the target does not rely on developer funding, negotiations with developers will continue to emphasise the mutual decongestion benefits of targeted transport investment appropriate to development schemes.	Low	High	Low
7	The commercial bus operator fails to deliver new vehicles for the A420 and GBBN routes	Justin Davies (Managing Director Bristol and Somerset & Avon First	High	Low	Med	The Councils have an agreed Memorandum of Understanding with the operator, supported by Quality Bus Partnerships to minimise the potential for this risk and vehicles are currently being delivered for GBBN. Should this mitigation measure be unsuccessful, the potential for a Quality Contract with the main commercial operator will be considered.	Med	Low	Low
8	Bus fare increases reduce the attractiveness of the bus service and increase car reliance.	Geoff Mills (Group Manager, Public Transport and P&R, BCC) Peter Walker (Integrated Transport Manager SGC)	High	Med	High	The QBP forming part of the Greater Bristol Bus Network Major Scheme commits the operator to minimum bus service standards. This is envisaged to reduce the impact on patronage of further fare increases due to the residual improvement in quality of the service, and reduced operating costs facilitated by journey time reductions for the operator.	High	Low	Med

						Patronage gains through the implementation of the Major Scheme will reduce the need to increase fares. Patronage levels will be closely monitored and joint action will be enacted to assist in addressing unforeseen patronage reductions before fare increases become necessary to cover operational costs. The Councils will also encourage other operators to run commercial and supported services to improve competition.			
9	Future bus driver shortages may result in reduced bus reliability, increase in bus fares and car use.	Justin Davies (Managing Director Bristol and Somerset & Avon First)	Med	Med	Med	The Councils will work closely with the operator to identify future opportunities to reduce vehicle operating costs through improved traffic management and improved patronage, to offset cost increases associated with driver retention.	Low	Low	Low
10	Frequency reductions by the operator reduce the attractiveness of the bus network and increase car reliance.	Justin Davies (Managing Director Bristol and Somerset & Avon First)	High	Low	Med	The measures provided by GBBN Major Scheme will improve bus reliability and journey times, in many cases enabling the operator to improve service frequencies through a combination of journey time reduction and patronage increases. Where possible the Councils will consider tendering for supported services to address the impact of commercial services being removed and encourage alternative operators to register services.	Med	Low	Low
11	Higher bus patronage increases dwell time at stops, delaying other car and bus occupants and increasing congestion.	Justin Davies (Managing Director Bristol and Somerset & Avon First)	Med	Low	Low	Bus dwell time will be minimised through further use of travel cards, pre-payment and smartcard initiatives.	Low	Low	Low
12	Bus lanes in certain locations may take highway capacity from general traffic and slow down journeys overall.	Peter Mann (BCC), Chris Sane (SGC)	Med	Low	Low	An emphasis will be placed on more effective network management, through the upgrading and remodelling of traffic signal installations and the installation of up-to-date signal control equipment. Many bus lanes proposed will utilise highway now used for peak period parking, and will effectively increase capacity by providing additional lanes.	Low	Low	Low
13	Insufficient controls and car parking tariffs and availability fail	Peter Mann (BCC)	Med	Low	Low	City centre car parking is priced to progressively encourage a shift from long stay to short stay parking provision. The two councils	Low	Low	Low

	to reduce attractiveness of car use.					yet to decriminalise parking enforcement will take on these powers by 2008. All four councils will work closely with town and parish councils to deliver appropriate local parking policies to reduce long-stay parking in favour of short stay.			
14	Parking infringements in bus lanes and on other highway improvements worsen bus reliability.	Peter Mann (BCC), Chris Sane (SGC)	High	Med	High	All four Councils will ensure that an appropriate level of enforcement is provided. The Councils will work closely with the operator to consider innovative enforcement techniques including camera enforcement. Operation of the Bristol Traffic Control Centre includes a bus operator representative. Surfacing treatment of bus stops will further discourage parking and loading infringements.	High	Low	Med
15	Additional traffic signals to improve pedestrian accessibility and meet current safety criteria increase journey times for car and bus users.	John Laite (Traffic Signals and Network Manager, BCC), Chris Sane (SGC)	Med	Low	Low	Along with the implementation of Showcase bus routes, an emphasis will be placed on more effective network management, through the upgrading and remodelling of traffic signal installations and the replacement of signal control equipment to enable more sensitive allocation of green time to reduce congestion.	Low	Low	Low
16	Insufficient staff resources are available to sufficiently progress decongestion schemes.	Peter Mann (BCC), Chris Sane (SGC)	High	Low	Med	The establishment of the Joint Transport Team provides additional strategic co-ordination and project input and the Councils have identified project managers for key work areas to prioritise the delivery of projects with key decongestion impacts.	Med	Low	Low
17	Data availability is insufficient to accurately monitor the decongestion impact of the programme.	Bill Davies (WEPO)	Med	Low	Low	The Councils have undertaken detailed discussions with the DfT to draw up a robust monitoring schedule, including annual surveys of car and bus occupants on all radial routes at specific timing points and drawing from Trafficmaster data.	Low	Low	Low
18	Subsequent disagreement on the implementation of detailed scheme elements jeopardises the Plan's ability to meet the trajectory.	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC); Karuna Tharmananthar (NSC).	High	Med	High	The governance structure for the Plan incorporates regular liaison between the four Heads of Service and regular capital programme monitoring and reporting, providing opportunities to discuss concerns over specific schemes and share best practice. The four Councils' experience with careful and proactive consultation on schemes will further minimise the risk	Medium	Med	Med

						of significant deterioration in the corridor packages.			
19	Joint Transport Partnership arrangements between the four Councils fail to be sustained in the longer term.	David Bishop (Director, Planning, Transport and Sustainable Development, BCC), Peter Rowntree (Strategic Director of Customer Services, B&NES), Peter Jackson (Director of Planning, Transport and Strategic Environment, SGC), David Turner (Director, Development and Environment, NSC).	High	Low	Med	All four Executive Members are committed to joint working on strategic transport matters and a Joint Transport Executive Committee has been established. This formalises the range of joint working frameworks that have been progressively implemented and worked successfully since 2005. These frameworks will provide clear opportunities for detailed dialogue between authorities to minimise the possibility for fragmentation. The dominance of monitoring, schemes and impact in one authority area (BCC) will also minimise the impact of fragmentation on this indicator.	Medium	Low	Low
20	Insufficient engagement with stakeholders reduces or decelerates the implementation of key delivery levers, such as bus priority measures and associated on-street parking restrictions.	Peter Mann (BCC), David Trigwell (B&NES), Chris Sane (SGC), Karuna Tharmananthar (NSC).	High	Low	Med	All four Councils will target consultation resources at key issues and stakeholders (e.g. local businesses), building on experience from the successful implementation of the A38 and A420 Showcase bus routes and associated parking restrictions. The promotion of bus priority measures as a package, including the provision of improved off-street parking facilities and public realm improvements to district centres affected by such measures, will greatly ease the implementation of otherwise controversial delivery levers.	Medium	Low	Medium

6. Delivery Chain

6.1 The following organisations and individuals have been identified as being key to the process of monitoring and managing congestion and ensuring that the target and trajectory are met:

- The four Councils' transport monitoring teams;
- First, the main commercial bus operator;
- GBBN Project Board and implementation teams within the four Councils;
- Executive Members;
- Heads of Service in the four Councils;
- Highways Agency;
- West of England Partnership Joint Transport Team.

- 6.2 In 2007 all four Executive Members were consulted and supported the target put forward in this Plan and the schemes and strategies set out in the JLTP on which the future year scenario for determining the target has been based.
- 6.3 Although the M32 is not one of the selected congestion routes the Highways Agency have still been included as a key partner in delivery due to the inclusion of the A4 corridor as far as Keynsham (now detrunked), the interaction between the Avon Ring Road A4174 and M32 Junction 1 and the proximity of the A4 Portway and A4018 corridors to the M5. The M4 and M5 currently accommodate significant local traffic flows and there is a very high degree of interaction between motorway flows and local authority routes. Actions and intervention on one network will therefore have a direct effect on the other.
- 6.4 The overall responsibility for delivery of the schemes and strategies delivering the target will rest with the four Councils and their Heads of Service. All are committed to the process via the agreed schemes and strategies in the JLTP. The West of England Partnership Joint Transport Team will co-ordinate the monitoring of the trajectory and target and co-ordinate and advise on mitigation actions should progress be off-track (see Section 3). In addition, First are a committed partner through the Partnership Concordat supporting the GBBN Scheme. This Concordat commits the operator to substantial fleet renewal (currently underway) and engages both First and the four Councils in a constructive and mutually beneficial partnership that will maximise network benefits for both bus and non-bus users.
- 6.5 The schemes supporting the CDP have been subject to significant consultation already through the JLTP process. The JLTP consultation programme included a range of initiatives, which are outlined in Section 7.

7. Communications Strategy

- 7.1 The Joint Transport Team within the West of England Partnership advises and supports the four Councils on strategic transport matters, including the JLTP, co-ordinates transport monitoring and directs the co-ordination of major scheme bids. The Team reports to the Partnership's Joint Transport Executive Committee and the Councils' individual Executive Members and Heads of Service. Significant individual decisions are taken by the four Councils as appropriate as formal decision making rests with them.

Stakeholder Strategy

- 7.2 The effective engagement of stakeholders will play a crucial role in the delivery of the CDP target. This is particularly the case when certain

elements may be contentious and difficult to deliver without support from key stakeholder groups.

- 7.3 The formulation of the JLTP placed a high priority on stakeholder engagement with particular emphasis on congestion and consultation on strategic funding options for the area. This included active and transparent engagement with the business community through the formation of the Local Transport Plan Commission chaired by the Chief Executive of Business West. Three investment levels were consulted on. Option A was restricted to existing Integrated Transport investment levels. Option B included the implementation of the GBBN and the Bath Package Major Schemes. Option C went further, adding consideration of measures such as congestion charging and the additional investment arising from these. As shown in Figure 16, Option C was endorsed by the consultees as the most appropriate investment scenario and this support was pivotal in securing funding from the DfT to assist with investigative works into congestion charging and similar initiatives.

Figure 16 showing JLTP options as before

- 7.4 Through the formulation of the JLTP a wide range of stakeholder partners are already engaged in consultation initiatives as shown in Figure 17.

Figure 17 showing key stakeholders as before

- 7.5 Future consultation initiatives with stakeholders will be tailored to the level of working required to deliver individual element of the congestion strategy. A range of partnerships and forums have been created to facilitate this process and ensure that schemes and strategies are optimised prior to implementation. Consultation initiatives can be broadly split into strategic level initiatives - mode or corridor specific - or local initiatives. Strategic level initiatives include the following:

Member and Parish Council Seminars and Briefings

Joint Scrutiny

A Joint Scrutiny Committee has been established and is consulted on all aspects of the progression of the JLTP.

Joint Transport Forum

Supplementing the local forums of the four Councils, a Joint Transport Forum meets annually to consider a range of issues associated with the delivery of the JLTP.

The meeting in December 2006 included separate workshops to ascertain attitudes to and causes of congestion and potential remedial measures. There was a consensus amongst the participants about the severity of congestion in the sub-region; locations and times where and when the problem is most severe; the value of time spent travelling; and the implications on health, air quality and bus reliability. Identified causes of congestion included insufficient investment, high car ownership, poor perception of public transport and impact of the school run. Remedial measures put forward included investment in public transport, improved traffic management, park and ride, better orbital links and traffic restraint measures. A full summary of the Forum is available on the www.westofengland.org.

Subsequent meetings of the Joint Transport Forum in November 2007 and September 2008 included updates on the CDP, GBBN and the sub-region's TIF work.

Transport Plan Commission

This Commission is being set up to give key stakeholders the opportunity to help guide the development of the new JLTP which will set the transport strategy for the area 2011- 2026. This follows the successful work of the previous Local Transport Commission, which provided input into the current JLTP.

Major Scheme Consultation

Comprehensive public consultation on bids for major scheme funding is taking place as part of the preparation of full business case submissions. This includes full engagement with the public on wider attitudes to, and causes of, congestion and consideration of mitigation measures.

A comprehensive public consultation programme is being undertaken in relation to GBBN. This includes newsletters on progress as well as targeted consultation on scheme details.

Joint Media Strategy

Since April 2008 a dedicated West of England Partnership press officer has provided one co-ordinated point of contact for all strategic transport matters associated with the four authorities.

Traffic Management Act Liaison Meetings

As covered in Section 3, monthly meetings are held between traffic management and traffic signal team staff from all four authorities and representatives of the Highways Agency, Avon and Somerset Constabulary and the main bus operator.

Green Commuter Club

A forum that meets regularly, including representatives from key employers and the main public transport operators, to promote sustainable commuting and good practice and to provide a targeted consultation mechanism for decongestion schemes. A closely aligned sub-group concentrates on travel patterns associated with the sub-region's health care facilities.

Personalised Travel Planning

A recent initiative focuses on changing travel behaviour at the community level. Featuring face-to-face interviews and provision of wide ranging consultation material, Personal Travel Planning has achieved notable successes in reducing car dependence in several residential areas within Bristol.

Joint Working with Bus Operators

All four Councils have worked closely with the main commercial operator to co-ordinate investment and jointly market improvements to bus routes. These partnerships have resulted in significant patronage gains where investment has been jointly targeted on specific corridors, and is being further built on through the GBBN major scheme.

- 7.6 Where proposals include sensitive elements such as control of on-street parking in district centres early, active targeted engagement will clarify concerns. It will assist in the identification of remedial measures to address such concerns and ensure that the corridor-based schemes are implemented as holistic packages, seen to benefit the wider community.

A420 Bus Showcase Consultation – Example of Good Practice

The A420 Showcase consultation commenced in 2004 with a series of meetings and workshops undertaken with local residents and traders in January and February 2005. The meetings were run jointly between Bristol City Council, the Bristol East Side Traders, a key stakeholder in the route, and the main commercial bus operator, and meetings were managed by facilitators to ensure a balanced and informed debate. This effectively targeted consultation at groups likely to be most concerned about the proposals, and the project was presented as an integrated package including enhancements to off-street car parks and aesthetic improvements to local shopping centres to address concerns over loss of on-street parking.

Since then, consultation has included widespread leafleting, web-based information and the provision of a dedicated shop for consultation purposes on Church Road, the retail area most affected by the proposals. This has ensured that a wide range of traders, shoppers and local residents have been made aware of the proposals and have had their views considered as part of the statutory Traffic Regulation Order advertising procedure.

- 7.7 GWE Business West has played a prominent role in coordinating the business community's responses to the JLTP and formulating attitudes to congestion and potential restraint measures. It is a key voice for commerce in the sub-region, incorporating the Bristol, Bath and South Gloucestershire Chambers of Commerce. The organisation has been consistently supportive of the JLTP, the delivery of GBBN, the progression of the major schemes programme and improvements to the suburban rail network. Support for GBBN has included representation on both Gateway Reviews for the project.
- 7.7 Each of the four Councils continues to facilitate its own events and forums to update stakeholders and the public on specific issues. Additional, statutory consultation will be carried out prior to the implementation of individual schemes.
- 7.8 Specific consultation on CDP progress will make full use of these initiatives. Where appropriate they will be accompanied by publication of information packs directed towards stakeholders and regular updates in Council and West of England Partnership newsletters. People will also be kept up-to-date via the West of England Partnership website.
- 7.9 Local and scheme-based consultation has a very high priority, particularly when accompanying statutory Traffic Regulation Order

consultation, to ensure this element is accessible and understood. Emphasis is placed on leafleting to provide an explanation of the need for schemes and their potential impact. Website information ensures a further way for the views of the general public and stakeholders to be provided.

- 7.10 All four Councils provide comprehensive public transport marketing and timetable information, including the widely distributed Greater Bristol bus map produced jointly with First. The GBBN scheme includes a joint marketing and publicity strategy.

Impact on the Target

- 7.11 Stakeholder attitudes have a significant potential to slow the rate of progress towards the trajectory if the authorities do not work hard to ensure that concerns over scheme impacts are considered and mitigated as necessary. This issue will be paramount from local schemes through to strategic area- wide initiatives. The positive impact of major bus infrastructure corridor schemes will be significantly reduced if specific measures such as bus lanes and associated parking restrictions are postponed or deleted due to insufficient consultation with the business community and inadequate liaison with the main commercial bus operator over operating costs.
- 7.12 Insufficient engagement with stakeholders will therefore be certain to reduce the rate of progress towards the target and the authorities will prioritise resources to minimise this risk. The risk register considers the likelihood and severity of risks associated with inadequate stakeholder linkages and mitigation measures. These include implementation of additional scheme elements and consideration of the impact of schemes such as GBBN on bus operating costs.

8. Key Milestones

- 8.1. The key milestones for the CDP are outlined in the Appendix. This has been adjusted to allow for the full approval of the GBBN Major Scheme in May 2008 as opposed to the original estimate of June 2007. It also includes schemes proposed as part of the Greater Bristol Cycling City initiative.

Resources

- 8.2. As discussed in Section 4, responsibility for delivery of the schemes and strategies rests with the four Councils. A key issue is the allocation of staffing to manage and deliver the schemes. The bulk of delivery lies with Bristol City Council as the majority of schemes are within the Bristol urban area. The Traffic and Transport division in the City Council has been reorganised to prioritise and accelerate scheme delivery through the appointment of new senior management positions,

the creation of a client team for all infrastructure works and a high priority on enhancing in-house project management expertise. In addition, the Councils have made full use of term consultancy support for a range of projects including detailed design and implementation of infrastructure works and the preparation of associated Traffic Regulation Order paperwork. For GBBN proposals separate project managers have been identified to co-ordinate the delivery of the corridor schemes through a closely managed delivery structure closely linked to the governance structure for the CDP.

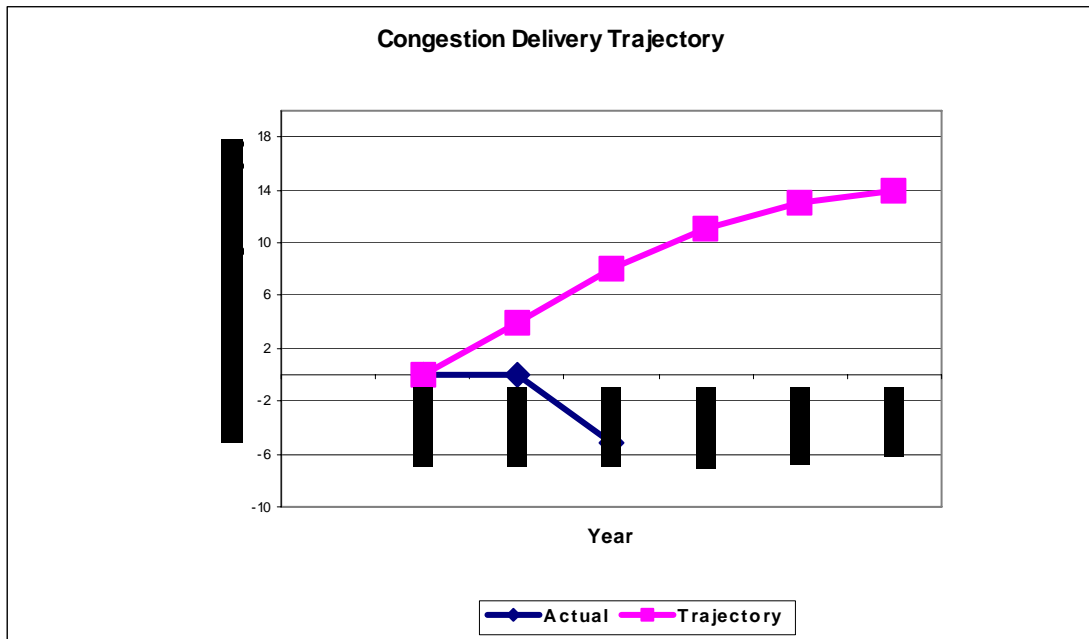
9. Programme Modification

Target Trajectory

- 9.1 The adopted trajectory towards the congestion target is shown in Figure 18. It is not a straight line trajectory as the delivery of corridor-based targeted investment, with its own complex timescales heavily dependent on significant statutory and non-statutory elements, will necessarily be skewed towards the latter half of the programme period and its impact will have a similar trend. The trajectory highlights the key intervention schemes that assist in its delivery, identifying the role of the Showcase bus route programme in ensuring the trajectory remains on track.
- 9.2 A curved trajectory is considered to be appropriate due to the delivery programme for the bus Showcase route proposals. This also allows time for the wider benefits to be felt in terms of the enhanced reliability and quality of the network, more through ticketing opportunities and hence patronage growth.
- 9.3 It should be emphasised that whilst the target has been modelled to confirm its deliverability in relation to likely funding levels, the alignment of the trajectory itself is more qualitative in nature. There will be a need to closely monitor delivery and potentially to revise the trajectory 'gradient' if necessary. However, risk management will play a vital role in minimising the need for this and the Risk Register outlines a comprehensive package of potential risks and mitigation actions.
- 9.4 Section 5 has identified risks to achieving the trajectory and appropriate mitigation measures to bring the trajectory back on track. In many cases it is possible that subsequent changes to capital programmes are necessary to increase investment in decongestion measures if progress is not on track. The governance and working arrangements outlined in Section 4 and close joint working at Head of Service level will ensure that decisions to redirect investment can be made quickly and effectively.

Figure 18: Congestion Delivery Trajectory

Schemes contributing to be added



Progress so Far

9.5 Between 2005/06 and 2007/08 journey times were forecast to increase by 8%. In practice there was a 5.1% decrease in journey times. Progress has therefore been very much better than forecast and largely prior to the slowing down in the national economy and the downturn in local activity.

10. Conclusion

- 10.1 The CDP outlines a clear and defined strategy detailing how the West of England congestion target will be met and considering options to exceed the target. It draws on good practice and gives confidence to the four Councils and the DfT that the congestion target is achievable and will be met with clear emphasis on performance and risk management.
- 10.2 Good progress has been made towards the target with journey times actually decreasing since the 2005/06 base date rather than increasing.
- 10.3 The Plan is a living document. It will be regularly updated to monitor progress, report on scheme implementation and modify the programme should the trajectory be off-track. The Plan also identifies the stakeholders and partners who will help deliver the target and the options for future investment of reward funding.

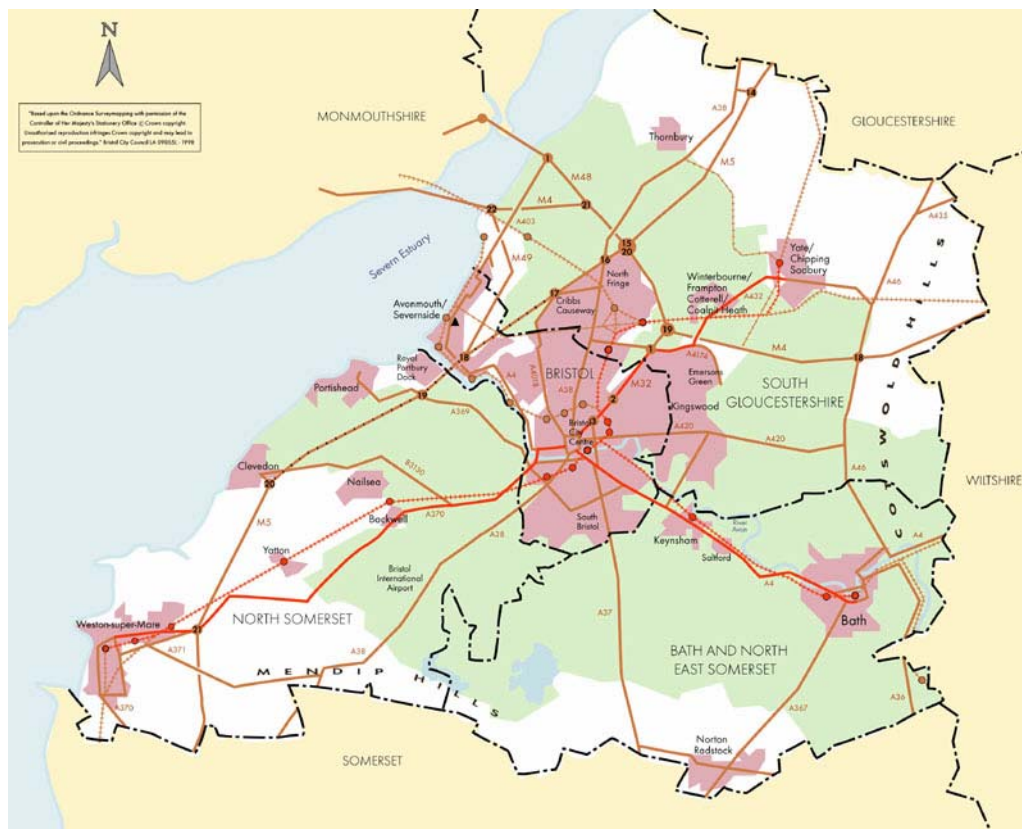
Joint Local Transport Plan 3

Chapter 1. Setting the Scene

The West of England is the gateway to the south west and its economic powerhouse accounting for 26% of the region's economy. With a million people and half a million jobs the per capita GDP is 23% above the national average, the second highest in England and 34th in Europe. That puts the West of England ahead of Berlin, Madrid and Rome.

It is a sub-region of great diversity and attraction from the expansive beaches of Weston-super-Mare to the Georgian splendour and UNESCO World Heritage Site of Bath to the high technology of the North Fringe to the old market towns of Thornbury, Chipping Sodbury and Norton Radstock to the Core City and regional capital of Bristol itself (see Figure 1.1). In Cabot Circus in Bristol and Southgate in Bath the West of England has two of the most modern and exciting shopping centres in the country.

Figure 1.1: Joint Local Transport Plan Area



This is the geographical setting for the new Joint Local Transport Plan. It is joint because the four councils of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire have joined up to deliver transport improvements across the West of England.

It is new because our first Joint Local Transport Plan only covered the years 2006 to 2011. This Plan takes on a wider timescale from 2011 to 2026.

This Plan, whilst being the second Joint Local Transport Plan, will be the third Local Transport Plan produced by the four West of England councils. For this reason it is referred to throughout as the Joint Local Transport Plan 3 (JLTP3).

Success comes with a price. We suffer from congestion. By 2016 this will cost £600m a year. Vehicle speeds are slow. We have in parts of Bristol and Weston-super-Mare some of the top 10% of deprived areas in the country as well as quality issues in Bath and Bristol. We have the draft Regional Spatial Strategy challenge of delivering thousands of homes and jobs by 2026.

The JLTP3 does not exist in isolation as Figure 1.2 shows. It works alongside the West of England Partnership Multi Area Agreement and the emerging Local Development Frameworks and Local Strategic Partnerships of the four councils.

Our transport partners, the Highways Agency, Network Rail and the train and bus operating companies plus our neighbours, Gloucestershire, Wiltshire, Somerset and Wales, remembering that transport doesn't just stop at the border, all have roles to play.

The Department for Transport, Government Office for the South West, South West Councils and the South West Regional Development Agency provide input and support at national, regional and local levels. The Local Transport Act 2008 provides a palette of potential powers to assist the JLTP3.

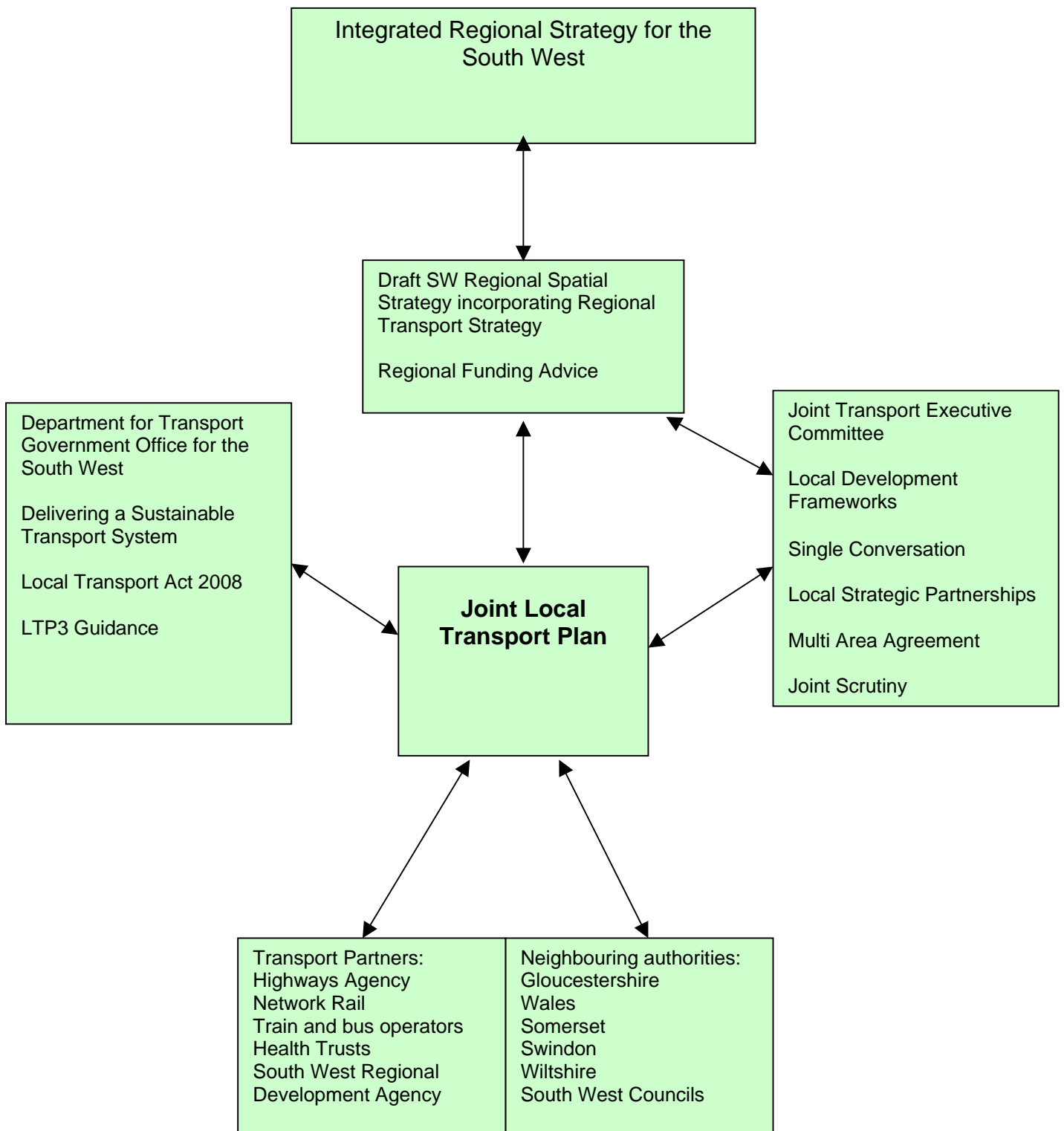
The JLTP3 builds on the work of the Joint Local Transport Plan. The Department for Transport rated our first Joint Local Transport Plan as 'good' and 'very competent.' Our progress in implementing it was described by the Government Office for the South West as "Overall we consider that your LTP2 (JLTP) strategies are being delivered and that you have made considerable progress in the first two years of LTP2 both in delivery and in keeping the majority of your targets on track."

We have 21 of those targets. 18 of them have been consistently kept on track, the best performance in the South West. It is this performance the JLTP3 will need to build on.

Overseeing the preparation of the JLTP3 has been the Joint Transport Executive Committee bringing insight and joint decision making to transport matters. Joint Scrutiny has performed a vital scrutinizing role.

In the chapters that follow we set out the new Joint Local Transport Plan for the West of England.

Figure 1.2: Partners, Plans and Programmes



Questions

- 1) Does this chapter suitably set the scene for the JLTP3 and the West of England?
- 2) Any other comments and suggestions?

Joint Local Transport Plan 3

Chapter 2. Vision and Goals

We need a vision to drive the JLTP3, a picture of how our transport network might look in 2026.

This coincides with the timescale for the draft Regional Spatial Strategy. The homes and jobs the Strategy expects us to deliver is our biggest challenge. Hence it makes sense to tie the two up.

To guide the JLTP3 there is the shared West of England vision (see Box 2A), the vision from the Joint Local Transport Plan 2006 to 2011 (see Box 2B) and our Sustainable Community Strategies. These visions remain highly relevant and it is not the intention of the JLTP3 to revisit them. We need to have aspirations but be realistic at the same time.

The vision is just the starting point. We will deliver it through a Joint Local Transport Plan based around the five key goals from the Department for Transport's "Delivering a Sustainable Transport System." As Box 2C demonstrates we have taken each goal and shaped a series of challenges and issues of local importance around them backed up by robust evidence.

Box 2A

Summary of West of England vision

- A buoyant economy.
- A rising quality of life for all.
- Easier local, national and international travel.
- Cultural attractions that make the West of England a place of choice.
- Approach to delivery that is energy efficient, protects air quality, minimises waste and protects and enhances the natural and the built environment.
- Makes positive use of the mix of urban and rural areas.

Box 2B

JLTP Vision 2006 to 2011

The Vision is a transport system that:

- Strengthens the local economy;
- Supports rising quality of life and social inclusion;
- Improves access and links;
- Ensures that alternatives to the car are a realistic first choice for the majority of trips;
- Offers real choice - affordable, safe, secure, reliable, simple to use and available to all; and
- Meets both rural and urban needs.

Box 2C JLTP3 Goals and Challenges

Strategic Goal	Our challenge	Evidence	Local importance
Goal 1: Reduce carbon emissions	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions. • Resilient and adaptable transport network. 	JLTP CO2 study. Greater Bristol Strategic Transport Study (GBSTS) CO2 forecasts. DaSTS CO2 public transport study. Environment Agency Weston-super-Mare study.	Rising sea levels, impact on coastal settlements and transport networks. Increased occurrence of extreme weather and resultant adverse impacts (e.g. flooding). Improve public transport.
Goal 2: Support economic growth	<ul style="list-style-type: none"> • Tackle congestion and improve journey times. • Promote use of alternatives to the private car. • Encourage more sustainable patterns of travel behaviour. • Support delivery of houses and jobs through the Regional Spatial Strategy (RSS). • Access to employment growth areas. • Reduce impact of traffic. • Increase capacity and reliability of local and national transport networks. • Maintain, manage and ensure best use of transport assets. 	£600m cost of congestion per year by 2016. Congestion Delivery Plan. Traffic growth and car ownership higher than national levels. Rail passengers doubled in ten years. New homes and jobs through the draft Regional Spatial Strategy (RSS) by 2026. GBSTS. National Travel Survey and 2001 Census data. Road condition surveys. National Highways and Transportation Surveys. Local Development Frameworks	Employment growth and regeneration areas. Managed motorway network. Key transport corridors. Electrification of Great Western Mainline. Employment growth areas in South Bristol, Emerson's Green Science Park, Weston-super-Mare. Joint Transport Asset Management Plan. Joint Rights of Way Improvement Plan (JROWIP). Cycling City. Bath World Heritage Site Freight including Avonmouth and Portbury. Bristol International Airport. Filton Airfield

		Great Western Route Utilisation Strategy Electrification of Great Western mainline. Regional Funding Allocation 2 schemes	M4/M5 and A4/A36 corridors
Goal 3: Contribute to better safety, health and security	<ul style="list-style-type: none"> Significantly reduce the number of road casualties Achieve improvements for road safety for the most vulnerable users and sections of the community Encourage more physically active travel Crime and the fear of crime Improve air quality in the Air Quality Management Areas Ensure air quality in all other areas remains better than the national standards 	West of England Road Safety Partnership – new accident targets and data. Powered two wheeler, cyclist and pedestrian accidents. Traffic surveys. Air quality data. % of population with long term illness. Sustainable Methods of Travel to School Strategies	JROWIP promote walking, riding and cycling. Air Quality Management Areas in Bath and Bristol. New AQMAs proposed for Keynsham, Kingswood, Cribbs Causeway and Staple Hill.
Goal 4: Promote equality of opportunity	<ul style="list-style-type: none"> Improve accessibility for all residents to health services, employment and other local services. Assist neighbourhood renewal and the regeneration of deprived areas. 	10% most deprived wards in the country in Weston-super-Mare and Bristol. % of population with long term illness. % of population with mobility impairments.	JROWIP access improvements. Bristol Health Service Plan and Southmead redevelopment. Accessibility Action Plans High public transport fares. River, road and railway barriers to movement.

	<ul style="list-style-type: none"> • Improve access to services for rural and remote area residents. • Reduction in commercial bus network and cost of fares. • Disability Discrimination Act compliant transport network. 	<p>% of population aged 75+. % of population Ethnic minorities. Accession mapping.</p>	<p>Public transport in rural and remote areas.</p>
<p>Goal 5: Improve quality of life and a healthy natural environment</p>	<ul style="list-style-type: none"> • Minimise the impact of transport on the natural and historic environment. • Reduce the number of people exposed to high levels of transport noise. • Enhance streetscape, public spaces and the urban environment. • Promote better access to leisure activities and the countryside. • Enhance the journey experience. 	<p>Traffic surveys. GBSTS. Environmental Assessments. Noise surveys. Sustainable Methods of Travel to School Strategies. Waste Strategy.</p>	<p>Bath World Heritage Site. Historic town centres and villages. Public Realm and Movement Strategy. Cotswold and Mendip Areas of Outstanding Natural Beauty. JROWIP access to natural environment. Avon Valley Railway.</p>
<p>Local Goals (if not already covered by Goals 1. to 5.)</p>	<p>Secure funding for non RFA2 schemes.</p>	<p>GBSTS. Other studies.</p>	<p>Links to Local Communities Strategies, crime, education and other initiatives not already covered by 5 goals.</p>

None of this is set in stone at this stage. We expect consultation and evidence gathering to help shape and refine the final choice of goals and challenges. This is a starting point but one based on existing experience, evidence and Government guidance.

In Chapter 3 we go onto explain the challenges and opportunities for change in more detail.

Questions

1. Do the five key goals cover all the issues?
2. Are there any local goals you would like to see added? What is the evidence for them?
3. Do you agree with the list of challenges?
4. Have we missed any challenges?
5. Do you have any other comments?

Joint Local Transport 3

Chapter 3. Challenges and Opportunities

Summary of goals and challenges

- Reduce carbon emissions
- Support Economic Growth –tackle congestion; maintain transport infrastructure; ensure readiness for housing and employment growth;
- Better Safety, Health and Security – improve road safety particularly for most vulnerable; encourage active travel; address personal security; improve air quality
- Promote Equality of Opportunity – improve accessibility to health, employment and other local services; support regeneration
- Improve Quality of Life – minimise transport noise; protect natural and built environment; promote better access to leisure activities; enhance journey experience

3.1 Introduction

- 3.1.1 Chapter 2 pointed out the significant transport challenges the West of England sub-region faces. This chapter reviews the detailed evidence behind these challenges and sets out the opportunities for change.
- 3.1.2 Keep in mind that the five key goals which drive the JLTP3 are closely linked to one another. Tackling one goal will have benefits for the other four.
- 3.1.3 This chapter is only in draft format. It will be illustrated throughout with maps and diagrams. More evidence will be added as research continues.

3.2 Goal: Reduce carbon emissions

Challenges:

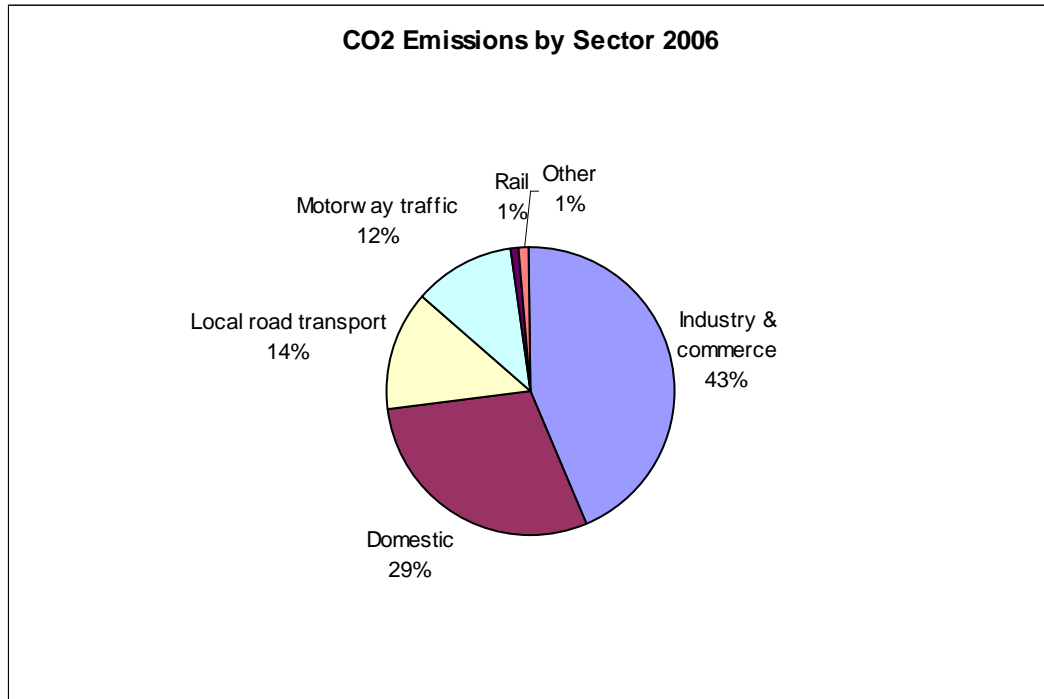
- Reduce greenhouse gas emissions
- Resilient and adaptable transport network

Evidence of importance:

- 3.2.1 Nationally transport accounts for 21% of total domestic greenhouse emissions. The Climate Change Act 2008 requires emissions to be reduced by 34% by 2010 based on 1990 levels. The contribution of the transport sector towards meeting this target is set out in *Low Carbon transport: A greener future* (Department for Transport, July 2009). Road transport represents about a quarter of total West of England CO₂ emissions (in 2006, the latest data), split almost equally between motorway and local road traffic: see Figure 3.1. A total of 2,100 kilo

tonnes of CO₂ are estimated to have been emitted in that year by road transport, some 2.0 tonnes per head of population. This compares to the national average of 2.2.

Figure 3.1: CO₂ Emissions



Source: Defra

Opportunities for change

3.2.2 The national strategy places reliance on:

- new vehicle technologies and fuels;
- using market mechanisms such as taxes and duty; and
- promoting low carbon choices.

3.2.3 The Department for Transport (DfT) expects the first two making a significant contribution towards meeting the national 2020 carbon reduction target but looks to local authorities to develop strategies and implementation plans that take significant steps towards mitigating climate change.

3.2.4 We see one of our roles as focusing on the promotion of low carbon choices, providing alternatives to the car, influencing travel behaviour and managing demand (see tackling congestion below). Key measures will include workplace and school travel plans, personalised travel planning and improvements to walking and cycling infrastructure as well as public transport enhancements, integration of travel modes, better information, more efficient distribution and reducing the need to travel through technology and spatial planning.

3.2.3 The Delivering a Sustainable Transport System (DaSTS) study into Transport Carbon Emissions in the West of England (expected spring 2010) will provide a useful tool for developing measures to reduce greenhouse gas emissions.

3.3 Goal: Support economic growth

Challenges:

- Tackle congestion and improve journey times
- Encourage more sustainable patterns of travel behaviour
- Reduce the impact of traffic
- Ensure access to employment growth areas
- Support delivery of houses and jobs through the draft Regional Spatial Strategy
- Maintain, manage and ensure best use of transport assets
- Make our road and rail networks resistant and adaptable to adverse weather, accidents, terrorist attacks and impacts of climate change

Evidence of importance:

- 3.3.1 Congestion is expected to cost the West of England economy £600m per year by 2016 (Our Future Transport, March 2008). Traffic continues to grow faster than the UK average and traffic speeds in the urban areas remain low. Although traffic speeds have improved recently, related to the economic downturn, congestion is still a significant problem, and is forecast to worsen. For more detail about how congestion impacts on the West of England area see Box A.
- 3.3.2 As highlighted by Greater Bristol Strategic Transport Study (GBSTS), June 2006 the motorway network in the West of England is used by many drivers for local trips. For example 50% of M5 traffic in peak periods has both its origin and destination within the West of England. The motorway network suffers from rapid breakdown in operation following accidents and other incidents. The Highways Agency intends to pilot a 'managed motorways' scheme to help ease congestion.
- 3.3.3 Accidents, incidents and road works create problems on our local roads and affect the carrying out of the Traffic Management Act 2004 network management duty.
- 3.3.4 Despite the recent economic downturn, the West of England continues to be the regional centre for employment. Prior to the recession there was a particularly large growth of jobs in the North and East Fringe of Bristol. A new Emerson's Green Science Park will continue the growth in South Gloucestershire. Other employment growth areas will support regeneration in South Bristol, Weston-super-Mare and Bath Western Riverside.
- 3.3.5 The draft Regional Spatial Strategy (RSS) sets out proposals for growth in housing and employment between 2006 and 2026. The draft

RSS for the West of England shows high rates of growth in jobs, population and housing. Accelerated investment in transport and social infrastructure will be required to enable this to happen. This presents a huge challenge to ensure transport infrastructure keeps pace with the expected development. Close links with the four emerging Local Development Frameworks (LDF) in the West of England will be essential.

- 3.3.6 Our challenge will be to provide the transport infrastructure to serve the housing and employment growth areas - whilst ensuring the current pressure on the transport system, which has increased with past growth and increased road traffic and rail usage, is eased; and the existing infrastructure is maintained.
- 3.3.7 We will build upon the list of major transport schemes accepted for the Regional Funding Allocation. Totalling more than £450m these schemes are essential to meet this challenge. As part of the JLTP3 we need to investigate what additional schemes may be required.
- 3.3.8 Although traffic speeds have improved recently, related to the economic downturn, congestion is still a significant problem, and is forecast to worsen. Buses get caught in congestion. The challenge is, working with public transport operators, to improve the reliability of public transport to ensure it is an attractive alternative to the private car. Rail passengers have grown by 38.7% over the last five years whilst infrastructure and services have struggled to meet increasing demand.
- 3.3.9 The West of England area includes an extensive Public Rights of Way (PROW) network. Our Rights of Way Improvement Plans (ROWIP) recognises the important role the network plays in developing an integrated transport network.
- 3.3.8 Road freight remains the main option for most distribution in the West of England and suffers from congestion and delivery problems. The Port of Bristol is a national gateway and there are plans for major expansion. Rail freight is constrained by capacity issues.
- 3.3.9 The recent Government announcement that the Great Western Main Line will be electrified should improve services between London and the South West. Electrification is due to reach Bristol by the end of 2016. Proposals outlined in the Great Western Route Utilisation Strategy, September 2009 for new infrastructure and enhanced local train services are to be welcomed although there are issues around funding and the delivery of the Greater Bristol Metro.

Box A: Congestion

There are a number of underlying factors causing significant congestion in the West of England:

- Unattractive and expensive public transport
- Growing usage of cars relative to other forms of travel
- Land use and development changes
- Road and rail infrastructure constraints
- Availability of free workplace and retail parking

It is not growing car ownership itself that is the most significant problem faced in our area but the growing patterns of car use for work, leisure and shopping trips.

The 2008 National Travel Survey (NTS) shows that every year each person makes an average of about 1,000 trips and travels over 6,900 miles. In large cities such as Bristol the average distance travelled is about 6,000 miles but this rises to over 8,000 miles for small towns and rural areas. Key national facts and figures are:

- Each person made an average of 1,000 trips each year;
- On average 637 of these trips (64%) are made by car and have an average trip length of 8.5 to 8.7 miles and take an average of 21-22 minutes;
- 57% of these car trips are less than 5 miles;
- Each person made an average of just 16 trips a year by bicycle;
- Cycle average trip length was 2.6 miles, taking 21 minutes; and
- Bus average trip length was 5.1 miles, taking 26 minutes.

Rail usage is relatively low in the West of England but the trends in growth have shown the potential impact local rail travel can have. Comparisons of the last three Censuses show that rail has steadily increased its mode share of journeys to work since 1981, with an overall 110% increase in rail usage over the period. More frequent services and reliability issues have in turn created problems of track capacity and congestion on the network.

Congestion through causing delays creates significant problems for the freight and logistics industry and the emergency services.

3.3.10 Ensuring the existing transport infrastructure is well maintained is crucial. A Joint Transport Asset Management Plan (JTAMP) has been produced. This has provided the opportunity to identify in detail the condition of local transport assets and define levels of service and

performance targets for the maintenance of footways, carriageways, bridges and other structures to ensure maximum value for money.

3.3.11 Bearing in mind the sub-region's local geography we are aware of the need to ensure our roads and footways can cope with flooding, erosion and other impact of climate change. We also need to give greater consideration to the design of our transport infrastructure in relation to terrorist threats.

Box B: Asset management

There are approximately 4,800 km of road that need to be maintained, made up of approximately:

- 400 km of principal or A roads
- 1200 km of non-principal or B roads
- 3,200 km of unclassified roads

Overall about 5% of principal (mainly 'A') roads, amounting to 20km, need structural maintenance. Some 12% of non-principal roads, totalling 140km, were below standard.

Generally, the condition of the highway network is related to the number and type of vehicles using it. The West of England's important role as a focus for economic and housing growth has been accompanied by increases in both private car and goods vehicle traffic, all putting greater demands on road surfaces. These demands will increase with greater traffic volumes, future development and extreme weather conditions arising from climate change.

As well as carriageways and footways the West of England has a range of bridges, viaducts, retaining walls and other structures. Their condition varies but all need maintenance to ensure their safety and ability to function efficiently. The variety of structures arises from the area's topography, geography and history. This also applies to street furniture, including lighting.

Opportunities for change

3.3.12 The opportunities for supporting economic growth fall into three categories.

- Provide alternatives to the car
- Influence travel behaviour
- Manage demand

3.3.13 We are already working towards the provision of an enhanced public transport system and increased walking and cycling. There is a significant opportunity to increase the attractiveness of these alternatives to car travel by:

- Developing rapid transit in the sub-region through our major schemes programme
- Working with bus operators to make services more reliable, frequent and comfortable
- Working with the rail industry to increase capacity and enhance services
- Enhancing facilities for walking and cycling e.g. through Greater Bristol Cycling City, Rights of Way Improvement Plans and other initiatives

3.3.13 The 2001 Census highlights that in the West of England, 21% of journeys to work are under 2km (potential walking distance) of which 45% are made by car. 22% of journeys to work are between 2km and 5km (potential cycling distance) with 68% by car. This suggests significant potential to encourage more sustainable patterns of travel behaviour. There is scope too to increase our 'smarter choices' activities.

3.3.14 Opportunities for managing demand are likely to focus on:

- Making best use of existing network, achieving more efficient traffic flows through technology, controls and information
- Managing parking, including charges where appropriate and potential control of on-site provision in new development
- LDFs achieving optimum locations for new development

3.3.15 Once the scale and location of future RSS housing and employment areas are confirmed, major investment in the supporting transport infrastructure will be needed.

3.3.16 Opportunities to maintain, manage and ensure best use of transport assets are likely to focus on implementation of our JTAMP. Additionally the JTAMP is a mechanism for addressing the need to ensure our road network is resistant and adaptable to the impacts of climate change.

3.4 Goal: Better safety, health and security

Road safety

Challenges:

- Significantly reduce the number of road casualties
- Achieve improvements in road safety for the most vulnerable users and sections of the community
- Encourage more physically active travel
- Improve air quality in the Air Quality Management Areas

Evidence of importance:

3.4.1 Between 1994 and 1998 almost 500 people were killed or seriously injured on the sub-region's roads every year. This figure was exceeded between 2002 and 2004 but has since fallen to about 300, a welcome downward trend. The number of people with slight injuries was also down on previous years. In common with many parts of the country the area has experienced an increase in injury accidents involving powered two wheelers and cyclists also account for an increasing share of casualties (see Table 3.1).

Table 3.1: Casualties Killed or Seriously Injured By Road User Group, 2008 Compared With National 1994-98 Baseline

Authority	Casualty Group									
	Car Occupants		Motor-cyclists		All Pedestrians		Child Pedestrians		Cyclists	
	1994-98 Ave	2008	1994-98 Ave	2008	1994-98 Ave	2008	1994-98 Ave	2008	1994-98 Ave	2008
Bristol	53	31	32	42	68	45	21	7	21	27
South Glos	65	25	21	22	20	14	7	3	8	9
N Somerset	52	28	14	12	18	15	5	4	6	6
B&NES	36	15	13	10	17	7	5	1	3	3
Total	206	99	80	86	123	81	38	15	38	45

Opportunities for change

3.4.2 Our working with the West of England Road Safety Partnership will give the opportunity to seek further reductions in casualty rates, taking account of the new national road safety strategy. By working jointly there is the opportunity to target resources and schemes in cost effective ways to tackle road safety on an area-wide basis.

3.4.3 Extensive education and training programmes will be needed, with vulnerable groups a priority.

Air Quality

Challenges:

- Improve air quality in the Air Quality Management Areas
- Ensure air quality in all other areas remains better than the national standards

Evidence of importance:

3.4.4 Emissions from transport sources can have a serious effect on people's health. Exposure to poor air quality seriously affects the most vulnerable members of society such as the very young, very old and people with cardio-respiratory problems. Problems focus on busy traffic routes in Bristol and Bath which have been declared as Air Quality

Management Areas (AQMA). Levels of Nitrogen Dioxide in these AQMAs fluctuate but are higher than the national target.

- 3.4.5 Monitoring has shown that air quality in four other locations (centres of Keynsham, Kingswood and Staple Hill and near Junction 17 of the M5 at Cribbs Causeway) is below national standards. These are potential AQMAs.

Opportunities for change

- 3.4.6 The AQMA Action Plans put forward a range of measures to improve air quality embracing:

- Information and education
- Promotion and provision of alternatives to the car
- Managing the road network
- Emissions management

Health and physical activity

Challenge:

- Encourage more physically active travel

Evidence of local importance:

- 3.4.7 Walking and cycling as part of our daily life can play an important part towards increasing physical activity and have large health benefits. The link between transport, physical activity and health is recognised nationally and reflected in programmes such as 'Be Active, Be Healthy', 'Change4Life' and 'Healthy Weight, Healthy Lives.'
- 3.4.8 Wider issues of obesity and public health, linked to National Indicators NI 55 and NI 56, are set out in the community strategies and Local Area Agreements (LAA). Transport related initiatives being pursued to improve health and well being focus on increasing levels of physical activity and better access to healthy food. The Walking to Health project in South Gloucestershire, and the Bristol's 5-year 'Active Bristol' programme are good examples of partnership working between the local authorities and local Primary Care Trusts. Walk to School campaigns link with other child-focused strategies. Other partnership-working initiatives with local communities have helped to encourage active lifestyles via promotion of the local Rights of Way networks.

Opportunities for change

- 3.4.9 Increasing walking and cycling has a key role in meeting the national targets for increasing physical activity. Measures to encourage more sustainable patterns of travel behaviour will have a positive impact.

3.4.10 In addition, action plans to reduce health inequalities are being pursued by the area's five Primary Care Trusts in partnership with the Councils and others.

Crime and fear of crime

Challenge:

- Improve safety and perceptions of safety on public transport, at transport interchanges and in relation to the rights of way and wider pedestrian/ cycling network
- Design and manage car parks to reduce potential for criminal activity
- Take account of potential terrorist threats

Evidence of local importance:

- NI 15 serious violent crime rate - slightly above national rate in Bristol (1.1 compared to 0.9), lower in the rest of the West of England
- NI 16 serious acquisitive crime rate - significantly higher than the national average in Bristol (32.9 compared to 18.6) but lower in the rest of the West of England
- NI 17 perception of anti-social behaviour - slightly above national rate in Bristol (23.6 compared to 22.2), lower in the rest of the West of England

Opportunities for change:

3.4.20 The JLTP3 will seek opportunities to address personal security issues at transport interchanges for example by working in partnership with the local train operator to make improvements in formal and informal surveillance at stations. Other design improvements to help reduce the fear of crime will also be supported.

3.4.21 There are opportunities for tackling problems of anti-social behaviour through further investment in city, town centre and neighbourhood enhancements, improved lighting, CCTV and other measures. Similar action can be taken at a local level in relation to shopping areas and local footpath and cycle networks. This includes appropriate management of local Rights of Way where there is perceived or reported incidence of crime and anti-social behaviour.

3.5 Goal: Equality of opportunity

Challenges:

- Improve accessibility for all residents to health services, employment and other local services
- Assist neighbourhood renewal and the regeneration of deprived areas
- Improve access to services for rural areas

Evidence of importance:

Accessibility

- 3.5.1 Accessibility is about tackling the problems of getting around for people without access to a car. It is about overcoming barriers. Barriers which prevent people accessing jobs, shops, schools and services such as hospitals. These are not just transport problems. Dispersed services especially in rural areas are harder to access on foot or by cycle and difficult to serve by public transport.
- 3.5.2 One in five households in the West of England have no access to a car and are therefore more reliant on public transport, walking and cycling than other sections of the population. Added to this are the 50% of households with access to only one car. They may similarly need to look to these other modes of travel for many journeys, for example where the car is used for commuting and is not available for shopping and other trips during the day.
- 3.5.3 The location of services is a major cause of accessibility problems. The main hospital sites for example have very large catchment areas, and providing good public transport access from all parts of the West of England remains challenging. Similarly, provision of local services such as post offices can help or hinder access to services.
- 3.5.4 Cultural and recreational facilities are often widely spread, at locations less well served by public transport. These include libraries, swimming pools, sports centres, sport fields, multiplex cinemas and heritage locations.
- 3.5.5 In some areas, rivers, railways and motorways form physical barriers to movement. Bridges overcome these barriers although the gaps between crossings are sometimes quite long; for example, over the River Avon, M4, M5, M32 and the sub regional rail lines.
- 3.5.6 Limited funding and legislation restricts the ability of the local authorities to support non-commercial bus services whilst a lack of good information can leave potential users unaware of what services exist in their area. For people with learning difficulties this can be a serious barrier to getting out and about.
- 3.5.7 Access to some major destinations, including some employment areas, retail parks, hospitals and other facilities, can be more difficult when they are away from the main radial bus corridors.
- 3.5.8 Fares often put the cost of journeys beyond the reach of low-income groups. This especially affects those seeking education and training

Neighbourhood renewal and regeneration

- 3.5.9 There are four main areas of multiple deprivation; inner urban areas to the north east of Bristol city centre; south Bristol; outlying estates at Lawrence Weston and Southmead; and communities to the south of Weston-super-Mare town centre. Good access between these areas and employment and services is essential to help residents.
- 3.5.10 Over 40 communities in Bristol and Weston-super-Mare suffer from multiple deprivation and there are substantial areas in both places and Bath that are in need of regeneration.
- 3.5.11 Bristol is one of the Neighbourhood Renewal Fund Areas identified for special funding nationally because of its concentrations of health and crime problems as well as deprivation in terms of employment, education and skills and housing. Local Neighbourhood and Renewal Action Plans in three inner Bristol areas have been produced by local community partnerships and include measures to enhance accessibility, road safety and public spaces.

Opportunities for change

- 3.5.12 Building on the accessibility action plans from the first JLTP, updated action plans will focus on improving access to employment and health care. Enhancements to the West of England's public transport system have a key role in improving accessibility and supporting regeneration and neighbourhood renewal. The development of new rapid transit routes, more attractive bus and rail services and support for community transport all offer opportunities for change.
- 3.5.13 Pilot schemes in some areas for youth concessionary fares may provide an opportunity to improve accessibility for young people during the plan period.
- 3.5.14 The ROWIPs identify opportunities to improve access to the countryside for all but also for people who are less physically able.

3.6 Goal: Quality of life

Challenges:

- Reduce the number of people exposed to high levels of transport noise
- Minimise the impact of transport on the natural and historic environment
- Enhance streetscape, public spaces and the urban environment
- Promote better neighbourhood connections, access to leisure activities and the countryside

- Enhance the journey experience

Evidence of importance:

- 3.6.1 In relation to noise, transport is the most pervasive source in the environment. For most people, road traffic is the main cause of exposure to ambient noise.
- 3.6.2 The European Union (EU) Directive on the Assessment and Management of Environmental Noise (2002/49/EC) requires local authorities to develop Noise Management Strategies and Action Plans to reduce exposure to noise from transport sources, control the deterioration of the noise climate in urban areas and protect existing quiet areas.
- 3.6.3 Noise levels vary considerably, with those living in proximity to busy roads suffering from the highest levels of exposure. Surveys in Bristol suggest that over 70% of respondents are concerned about levels of noise in the city.
- 3.6.5 Part of the very attraction for people living in the West of England is the high quality of life. Historic cities, towns and villages, conservation areas, the two Areas of Outstanding Natural Beauty (AONB) all contribute to this. The Bath cityscape is a UNESCO World Heritage Site.
- 3.6.6 By definition, the two AONBs, the Mendip Hills and the Cotswolds, have high landscape and biodiversity qualities. Both AONB management plans highlight the adverse impact that traffic and highway-related schemes can have on landscape and biodiversity.
- 3.6.7 Shortcomings in the design and maintenance of public spaces; streets and highways; street furniture; lighting and signage; and walking and cycling facilities affect the public's perception of their local environment. Standards of highway maintenance are critical.
- 3.6.8 Substandard public transport infrastructure with inadequate on-street information and poor facilities for walking and cycling. These work against the aim of promoting sustainable travel choices and improving accessibility for those without cars.
- 3.6.11 Congestion on busy radial routes adds to community severance. It creates barriers for more vulnerable travellers, such as cyclists, pedestrians and the disabled. High vehicle flows accentuate this severance and detract from the quality of life for local people by creating noise, pollution, road safety and health problems. Examples of this are the busy A4 and A420 roads cutting across inner city areas already suffering from multiple deprivation.

Opportunities for change

- 3.6.4 Traffic related noise could be reduced in several ways, for example through renewal of carriageways and targeted maintenance. At the same time better management of the road network will deliver noise reduction benefits. For example, through a mix of information, signage and restrictions we can direct heavy goods vehicles away from using unsuitable routes in residential areas or across public spaces. The EU Directive provides the platform to ensure that noise impacts are fully considered as the JLTP3 is implemented.
- 3.6.9 Considerable scope exists for improving the quality of life through schemes for managing traffic and speed and in securing good design in new developments. Local Development Frameworks will set design standards.
- 3.6.10 By protecting and promoting areas where pedestrians and cyclists can enjoy a safer environment we can encourage walking and cycling. Historic town centres and villages need to be maintained and enhanced. Bath's World Heritage Site Management Plan sets out measures to ensure a superb standard of built environment is protected. The Bath Transportation Package major scheme will help achieve this objective.
- 3.6.12 The rights of way network plays an integral role in developing an integrated transport network for the area, which has the potential to offer extensive sustainable travel opportunities for walkers, disabled people, horse riders and cyclists for all journeys purposes. The ROWIPs identify opportunities to improve access to the countryside. Further development of existing multi-user routes and the National Cycle Network offer more scope for travel.

Questions

- 1) What additional evidence could we use to justify the goals, challenges and opportunities for change?
- 2) Are there any other opportunities for change that we should consider?
- 3) Any other comments on this chapter?

Joint Local Transport Plan 3

Chapter Structure for the rest of the JLTP3

Below we set out how the rest of the JLTP3 is likely to look. This is subject to change as each chapter emerges but we thought it would be useful to share it with you at this stage.

Chapter 4 How engagement shaped the JTLTP3

Summary of engagement process and key changes arising from it.

Chapter 5 Option Testing

How options for delivering the five key goals were drawn up and tested through the Strategic Environmental Assessment process.

To include work on Habitats Regulations Assessment, Equality Impacts Assessment and Health Impact Assessment.

Chapters 6 to 10 Implementing the five key goals

Reducing carbon emissions
Support economic growth
Promote equality of opportunity
Contribute to better safety, security and health
Improve quality of life

Chapter 11 Delivery Plan

Outline of the Delivery Plan approach and future reviews.

Chapter 12 Major Scheme Bids

Existing Regional Funding Allocation 2 schemes. Possible schemes for RFA3 arising from the SEA option testing process.

Chapter 13 Targets and National Indicators

Based on existing transport related National Indicators plus local ones as appropriate.

Chapter 14 Summary