



West of England

Joint Local Transport Plan 3

2011 – 2026

March 2011



West of England Partnership

Bath & North East
Somerset Council



North
Somerset
Council

South Gloucestershire
Council



The Joint Local Transport Plan 3 is produced under the requirements of the Transport Act 2000 S108 as amended by the Local Transport Act 2008. It meets in full the duty to develop and implement policies for transport.

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1. Introduction

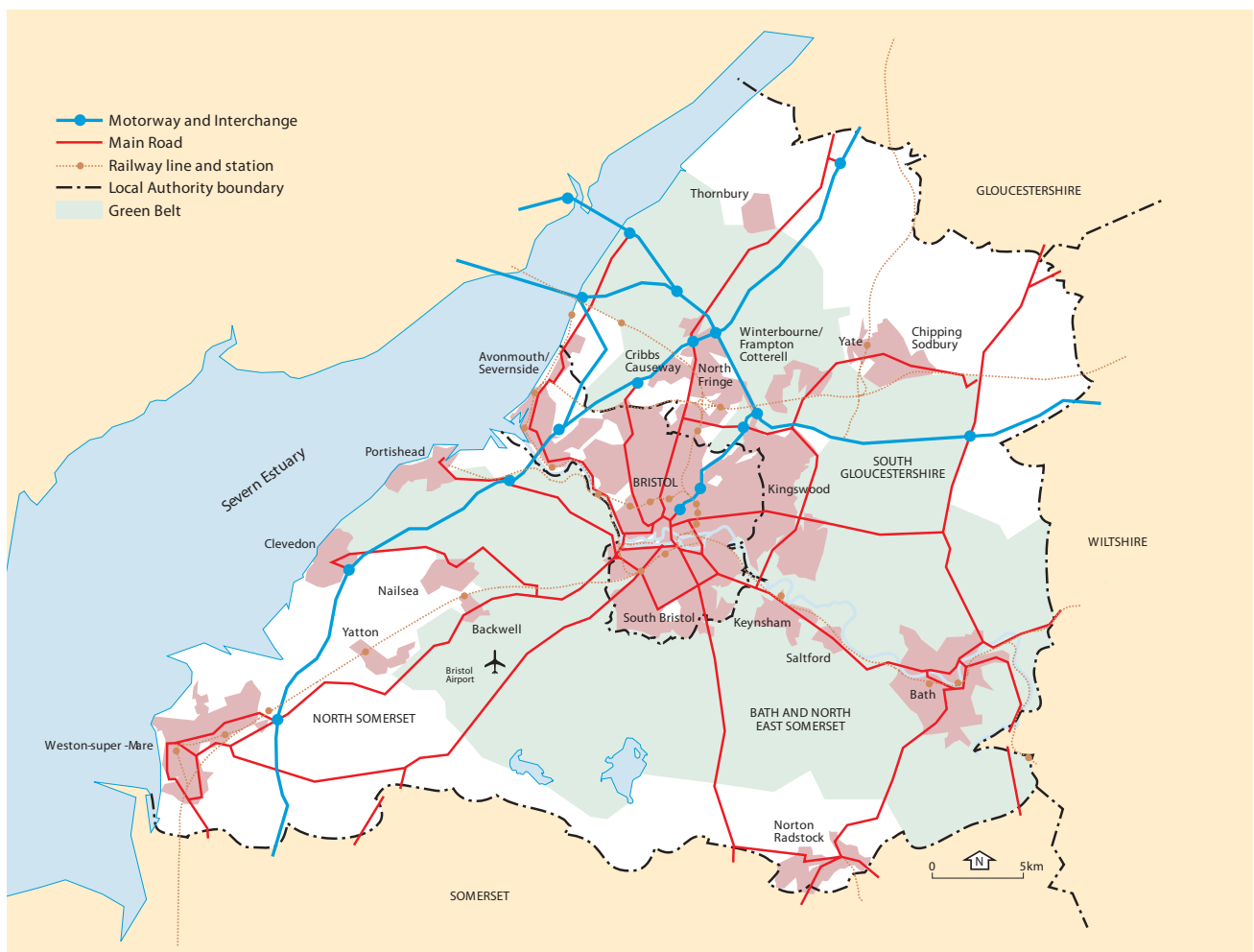
- 1.1 Welcome to the new Joint Local Transport Plan (JLTP3). It's new because our current JLTP only covers the years 2006 to 2011. It's joint because as the four councils of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire we have joined up to deliver transport improvements in the West of England. Our new JLTP3 covers the period from 2011 to 2026.
- 1.2 Our area is one 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, Midsomer Norton and Radstock to the City of Bristol (see Figure One). Box A sets out some key facts and figures.

2. Vision

- 2.1 In a nutshell we want an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.

Figure One : West of England



Box A: West of England facts and figures

- 1 million population.
- 3.7m visitors a year to Bath World Heritage Site.
- 6.5m tourists visit North Somerset every year.
- 9 internationally designated habitat sites.
- 4,800km of roads that need to be maintained.
- 11 major transport schemes worth £600m of investment.
- £600m cost of congestion by 2016.
- 1.5% of all journeys to work are by rail but 44% growth 2004 to 2008.
- 57% of car trips are less than 5 miles.
- 253 people were killed or seriously injured in road accidents in 2009.
- 19% of local CO2 emissions from local road transport.
- Bristol and Weston-super-Mare have some of the top 10% most deprived wards in the country.
- 81,000 people have ill health.
- 78,000 people aged 75+.
- 67% of adults in Bristol are at an increasing risk of ill health due to low physical activity.

2.2 We will deliver it through a Joint Local Transport Plan based around the five key transport goals of:

- Reduce carbon emissions
- Support economic growth
- Promote accessibility
- Contribute to better safety, security and health
- Improve quality of life and a healthy natural environment.

2.3 Looking forward to 2026 the vision needs to be seen in the context of a fast moving world with changing technology, funding, lifestyles, national policies and Governments and the potential challenges of climate change and peak oil. We need to be practical and realistic with one eye on the future.

3. Structure of the Plan

3.1 The JLTP3 has been shaped by our current Joint Local Transport Plan 2006 to 2011, guidance on producing Local Transport Plans, our programme of major transport schemes, engagement, Comprehensive Spending Review 2010 and levels of future funding.

3.2 The JLTP3 will be in three parts as shown in Figure Two.



Figure Two: Joint Local Transport Plan 3 Structure



3.3 The JLTP3 does not exist in isolation. It works alongside the Local Enterprise Partnership, Core Strategies and Local Strategic Partnerships of our four councils and with our partners in the bus industry and through Memoranda of Understanding with the Highways Agency, health sector, Network Rail and train operators.

3.4 We must also recognise that people's travel needs will vary according to where they live in the West of England (see Figure Three). One size of JLTP3 does not fit all. How the JLTP3 will impact on different parts of the West of England is considered throughout the plan.

4. What's in the JLTP3?

4.1 The JLTP3 revolves around five transport goal based chapters and chapters on major transport schemes, the Delivery Plan and indicators and

targets. All are supported by the nine Supplementary Documents (see Figure Two).

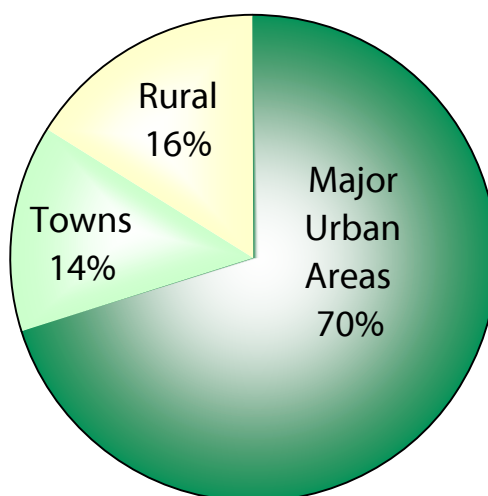
Reducing carbon emissions

4.2 This chapter looks at ways to reduce greenhouse gas emissions by focusing on the promotion of lower carbon travel choices, providing alternatives to the car, influencing travel behaviour and managing demand. It also identifies the need to adapt to climate change by increasing the transport network's resilience to extreme weather events.

Supporting economic growth

4.3 Here we outline measures to tackle congestion and improve journey times, provide alternatives to the car, influence travel behaviour, manage demand through highway improvement, management and maintenance, ensure access to employment growth areas such

Figure Three : Where People Live



Source: Census 2001

as the 'SPark' science park at Emerson's Green, support the delivery of houses and jobs and maintain, manage and ensure the best use of transport assets. The chapter features sections on cycling, walking, rapid transit, bus, rail, smarter choices, powered two wheelers, demand management, freight, peak oil and the Travel+ brand.

Accessibility

- 4.4 Under this chapter we look at ways to improve accessibility for all residents to health services, employment, digital infrastructure and other local services. We seek to assist neighbourhood renewal and the regeneration of deprived areas particularly in South Bristol and Weston-super-Mare, set transport user priorities, improve access to services for rural and remote area residents and ensure the needs of women, children and young people, ethnic minorities and those with

mobility problems are incorporated throughout the JLTP3.

Safety, health and security

- 4.5 We have four aims. Firstly to significantly reduce the number of road casualties and improve road safety for the most vulnerable users and sections of the community. Secondly to improve air quality in the Air Quality Management Areas in Bath, Bristol, Cribbs Causeway, Kingswood, Keynsham and Staple Hill and ensure air quality in other areas remains better than the national standards. Thirdly to encourage and facilitate more physically active travel through cycling, walking and public transport use and working with the four Primary Care Trusts. Fourthly to improve personal security on the transport network.

Quality of life

- 4.6 Part of the very attraction for people living in the West of England is the high quality of life and natural environment.

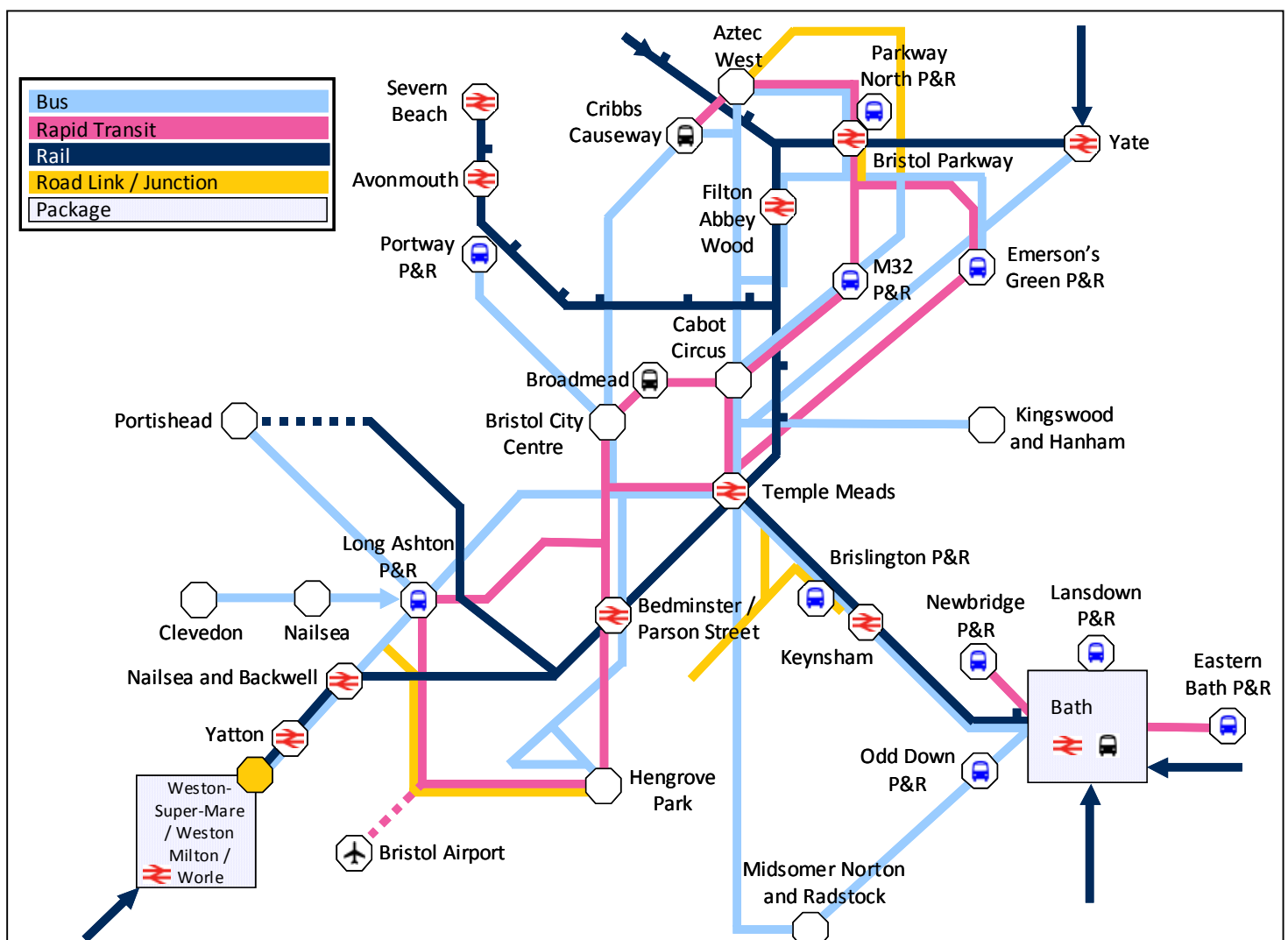
To this end this chapter seeks to enhance the public realm, minimise the impact of transport on the natural and historic environment, reduce the number of people exposed to high levels of transport noise and enhance our streetscape, public spaces and urban environment. Promoting better access to leisure activities and the countryside, for example through our Rights of Way Improvement Plans, is also key along with enhancing the journey experience recognising the important work of organisations such as the Severnside Community Rail Partnership. Case studies from

Weston-super-Mare, Bath and Bristol provide vivid evidence on how these quality of life themes interact and complement each other.

Major Transport Schemes

- 4.7 Key to supporting our JLTP3 and wider community strategy objectives is the West of England's major transport scheme programme. We have eleven schemes. Major schemes are ones costing over £5m which is unaffordable from our existing funding sources. All our schemes have an important role in supporting economic growth,

Figure Four : Major Transport Schemes



regeneration and improving access to jobs and services. Our programme of schemes is shown in Figure Four.

Delivery Plan

- 4.8 The Delivery Plan will set out how we intend to implement the JLTP3, on a three year rolling programme. It will be a sister document to the JLTP3. As levels and the type of future funding are confirmed by the Government the first three year Delivery Plan 2012/13 to 2014/15 will be published as part of an early refresh of the JLTP3 in late 2011. Meanwhile an interim one year delivery plan for 2011/12 will be produced.

Indicators and Targets

- 4.9 Targets and indicators measure and monitor our progress towards meeting the JLTP3's objectives, highlight where we are doing well and show where we need to do better. Indicators need to strike the right balance between being



realistic but challenging, comprehensive but practical to collect, analyse and report. A range of possible indicators and how they would monitor progress is put forward.

5. Finances and Vision

- 5.1 Our Plan is based around funding guidelines presented in the Comprehensive Spending Review of October 2010. Whilst this acts as a constraint on our aspirations we will explore future avenues as the financial climate improves. See Box B for a selection of future ideas.

Box B: Future ideas

- Development and expansion of Rapid Transit Network.
- Increased capacity on the rail network.
- Cycling and walking major transport scheme.
- Alternative ways to tackle rural accessibility and isolation.
- Follow up CIVITAS and Green Bus Fund schemes in Bath.
- Neighbourhood initiatives linking healthy living with road safety training, education and publicity and smarter choices.
- 20mph residential area pilot schemes extended.
- Quiet Deliveries Demonstration scheme.
- Healthy town concept to tackle obesity, eat healthily and be active.
- Measures to manage and reduce vulnerability of transport infrastructure to weather and climate change.



6. Assessing the impact of JLTP3

- 6.1 We need to know what impact the JLTP3 will have on the environment so a Strategic Environmental Assessment was undertaken. A full Environmental Report is published alongside the JLTP3. It includes a Health Impact Assessment looking at public health concerns and an Equalities Impact Assessment addressing anti discrimination and equalities legislation. A Habitats Regulations Assessment considers the effect of the JLTP3 on international designated habitats such as the Avon Gorge Woodlands, Severn Estuary and Chew Valley Lake. Overall the impact of the JLTP3 is positive. Recommendations for mitigation measures further strengthen the benefits.

7. Engagement

- 7.1 Our overall approach was aimed at conducting targeted public engagement, and ensuring partners and the public were given a genuine opportunity to comment on the emerging JLTP3. Our new "Let's Talk: Transport Matters" slogan and website (www.transportmatters.org) provided an eye catching and colourful focus. In

all we received just under 4,500 responses.

- 7.2 The engagement results provided us with a strong steer for the JLTP3. Our focus is now on supporting economic growth and reducing carbon emissions supported by the three other transport goals. Public transport will be the main focus for investment. A detailed report on the engagement results will be published alongside the JLTP3.

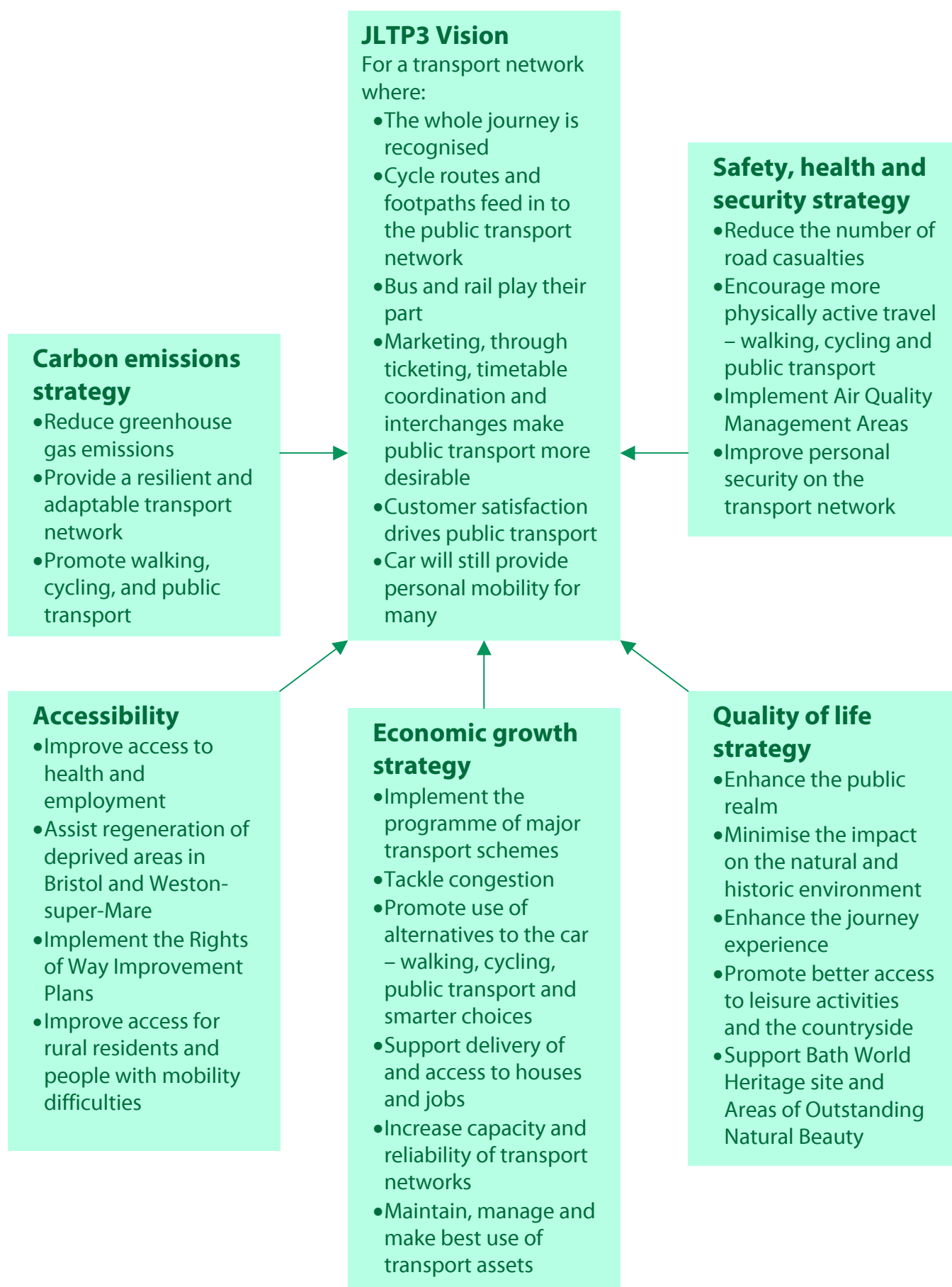


8. Summary

- 8.1 Our JLTP3 will be delivered through the five goal related strategies summarised in Figure Five. In turn the strategies are supported by the nine Supplementary Documents (see Figure Two). The JLTP3 is a living document and will be reviewed and updated throughout its life.



Figure Five : Joint Local Transport Plan 3 2011 to 2026



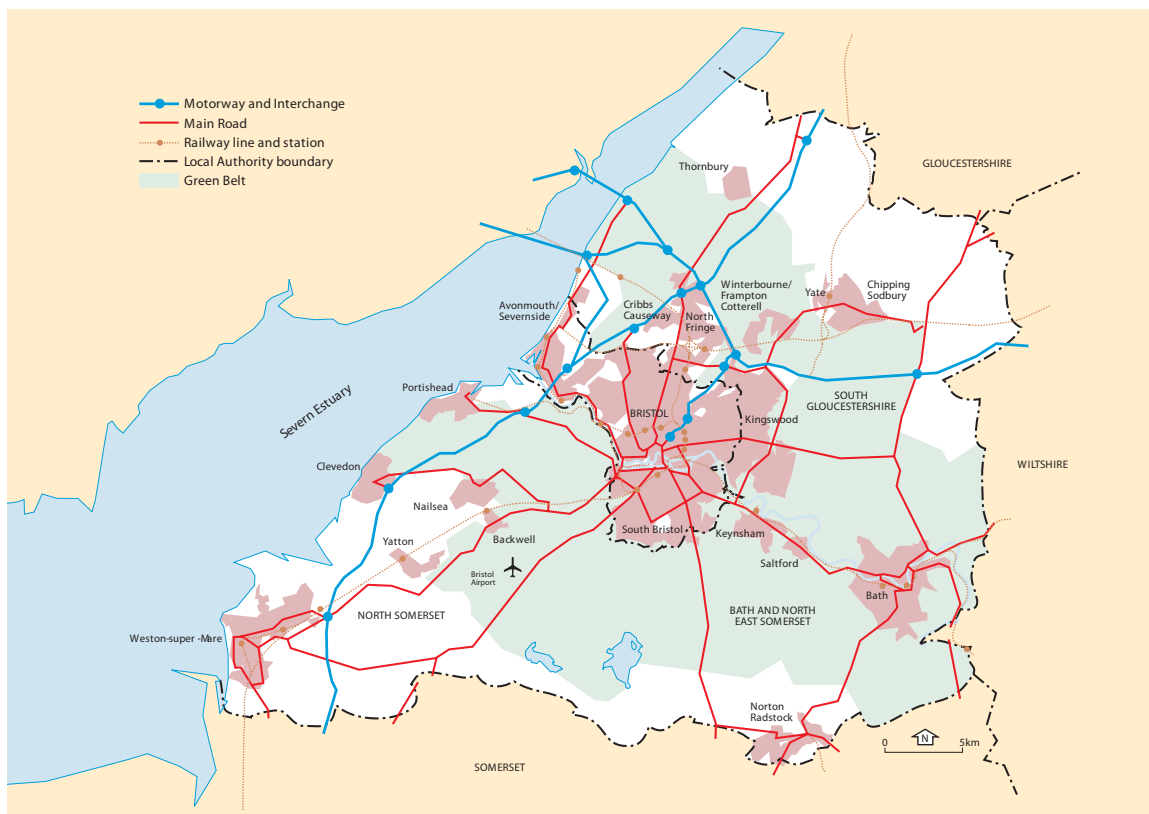
1.1 Welcome

- 1.1.1 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 we have the highest growth in Gross Domestic Product (GDP) per capita of any major city in England outside London. In terms of GDP we are, along with the capital, the only English region in the European top forty.
- 1.1.2 It is an area 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 and The Mall at Cribbs Causeway to the old market towns of Thornbury, Chipping Sodbury, Midsomer Norton and 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. Along with all this are extensive areas of Green Belt, attractive countryside and a range of villages and hamlets.

- 1.1.3 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.
- 1.1.4 It is new because our first Joint Local Transport Plan (JLTP) only covered the years 2006 to 2011. Now it takes on a wider timescale from 2011 to 2026.
- 1.1.5 This Plan, whilst being the second Joint Local Transport Plan, will be the third

Figure 1.1 Joint Local Transport Plan Area



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).

- 1.1.6 Success comes with a price. We suffer from congestion. By 2016 this will cost £600m a year. Vehicle speeds are slow. Air quality in parts of Bristol, Bath and North East Somerset and South Gloucestershire does not meet European Union standards. We have in parts of Bristol and Weston-super-Mare some of the top 10% of deprived areas in the country as well as air quality issues in Bath and Bristol. We have the Core Strategies challenge of delivering thousands of homes and jobs by 2026.

1.2 Working with partners

- 1.2.1 The JLTP3 does not exist in isolation as Figure 1.2 shows. We have a new Local Enterprise Partnership recognising the role transport plays in supporting economic development and creating opportunities for growth. We work closely with other partners and plans to coordinate our activities and help get the best value out of different sources of funding.
- 1.2.2 Our transport partners, the Highways Agency, Network Rail and the train and bus operating companies, the four local Primary Care Trusts plus our neighbours, Gloucestershire, Wiltshire, Somerset and Wales, remembering that transport doesn't just stop at the border, all have roles to play.
- 1.2.3 Overseeing the preparation of the JLTP3 has been the Joint Transport Executive Committee. Made up of the four councils' Executive Members for Transport, it is an innovative, dynamic, responsive, forward thinking and

strategic body bringing insight and joint decision making to transport matters. Joint Scrutiny drawn from other elected Members reviews progress. A Transport Plan Commission, set up with key partners, advises on the content of the JLTP3.

1.3 Who does what?

- 1.3.1 Talking of our partners it is worth pausing to consider who does what.

Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils

- Sets the policy framework.
- Makes the decision to agree the JLTP3.
- Manages some on and off street parking.
- Supports some local bus services, community and school transport and concessionary travel.
- Looks after cycle paths and public rights of way.
- Maintains roads and footpaths.
- Implements major transport, road safety, traffic management, traffic calming, bus priority, smarter choices, cycle and walking schemes.
- Runs joint travel awareness initiatives such as Jam Busting June and Travel Plan awards.
- Responsible for strategic planning through Core Strategies and development of major sites.
- Responsible for a range of other local authority services which all depend on transport including adult and community education, housing, regeneration, planning, social services, parks and recreation, environmental health, community safety, and waste.

Local Enterprise Partnership

- Brings together civic and business leaders.
- Support for five priority high growth sectors.
- Support significant local transport projects.
- Partnership bids to Local Sustainable Transport Fund.

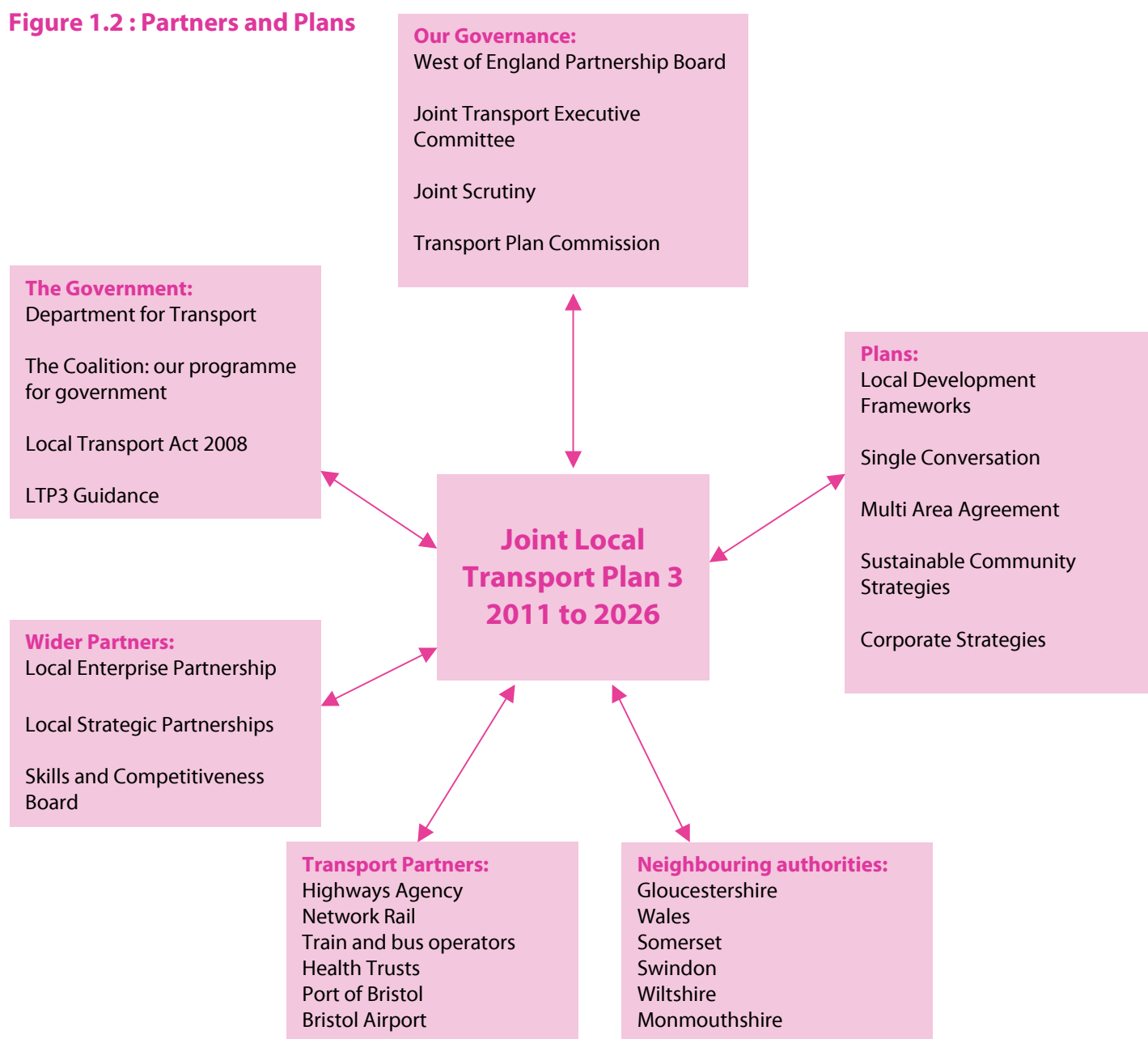
Joint Transport Executive Committee

- Considers joint transport initiatives and recommends courses of action to the four councils.

West of England Partnership Office

- Brings together the Joint Local Transport Plan and progress reports.

Figure 1.2 : Partners and Plans



- Co-ordinates cross boundary schemes.
- Leads on strategic transport issues.

Other partners

- Network Rail owns and manages the rail network including track, signals and tunnels. All the stations in the West of England area are owned by Network Rail but managed by First Great Western.
- First Great Western operates the majority of train services and manages all the stations with Cross Country and South West Trains providing additional services.
- Department for Transport specifies the franchises for train services.
- Highways Agency manages the strategic road network (M5, M4, M32 and sections of the A4, A36 and A46).
- Commercial bus companies run local and long distance bus services.
- Air travel policy is set by the Government's 'Future of Air Transport' White Paper 2003. Bristol Airport, however, works closely with the local authorities on improving surface access to the airport.
- Port of Bristol (Avonmouth and Portbury) provides an international gateway for freight and is one of the most productive and technically advanced ports in Europe.
- The four Local Strategic Partnerships bring together business, public sector, communities, voluntary sector and higher and further education to identify and tackle key local issues (see Figure 2.2).
- West of England Skills and Competitiveness Board is an employer led body advising, promoting and supporting action to increase competitiveness, investment, economic growth and employment.



- The four Primary Care Trusts responsible for local health services, improving health and getting people more active as part of their day to day lives and reducing health inequalities.

1.3.2 We work in partnership with all these organisations but sometimes we do not have the power to make the final decisions.

1.3.3 We will continue to look at ways to further enhance our transport governance and delivery using existing powers including joint and smarter procurement arrangements, Memoranda of Understanding and bus Quality Partnership Schemes.



1.4 Vision and finances

1.4.1 We live in financially straitened times and unavoidably this will shape the JLTP3. This is likely to mean future funding for the JLTP3 will be greatly constrained over the short to medium term. As the financial picture becomes clearer reviews of priorities across the Integrated Transport and Maintenance Blocks and the major transport scheme programme will be needed. Targets will reflect lower levels of funding. The JLTP3 will need to be amended accordingly.



1.4.2 Our Plan is based around funding guidelines presented in the Comprehensive Spending Review of October 2010. Whilst this acts as a constraint on our aspirations we will explore future avenues as the financial climate improves. Look out for the Future Plan Ideas to 2026 sections throughout the JLTP3.

1.5 Structure of the JLTP

1.5.1 The JLTP3 is in three parts with:

- a) Strategy taking the long term overall policy view 2011 to 2026.



- b) Delivery Plan setting out implementation proposals over the shorter term
- c) Supplementary Documents covering walking, parking, public transport, network management, freight, smarter choices, road safety, cycling and rural transport in more detail.

1.5.2 The Supplementary Documents and Delivery Plan will be available as separate volumes.

1.5.3 In the chapters that follow we set out the Strategy for the JLTP3 for the West of England.

1.5.4 The JLTP3 is a living document and will be reviewed and updated throughout its life.



2.1 Introduction

2.1.1 We need a vision to drive the Joint Local Transport Plan 3 (JLTP3), a picture of how our transport network might look in 2026. We need a vision that is part of the shared West of England one (see Box 2a) and our Sustainable Community Strategies and Corporate Plans. We need to have aspirations but be realistic at the same time.

2.1.2 In a nutshell we want an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.

- ☑ A transport system that recognises the whole journey. Where cycle routes and footways feed in to the public transport network;
- ☑ A transport system where both bus and rail play their part. Where buses serve the movements around and within towns, cities and rural communities. Where rail serves both short and longer journeys;
- ☑ Where marketing, through ticketing, timetable coordination and

interchanges make public transport more desirable than the private car;

- ☑ Where customer satisfaction is the driver behind encouraging public transport use;
- ☑ Whilst recognising the car will still provide personal mobility for many.

2.1.3 And on the ground you will see:

- High quality bus network (based on the Greater Bristol Bus Network model) providing fast, reliable, comfortable, frequent, affordable and lower carbon bus services;
- Rapid transit network of lower carbon vehicles serving Ashton Vale, Hengrove, Emerson's Green, North and East Fringe, Cribbs Causeway, Bath, South Bristol and Bristol Airport;



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.



- Major transport schemes for Bath, Weston, Portishead rail corridor, North Fringe to Hengrove and South Bristol;
- Park and ride network expanded;
- Smartcard ticket to ride the transport network;
- Interchanges linking up bus, rail, cycling, walking and car trips;
- Suburban rail network of half hourly cross Bristol services with new lines and stations;
- Electrified rail lines to London and Wales;
- Safe, convenient and attractive walking and cycling networks;
- Demand management measures to encourage people to use lower carbon forms of transport;
- Public realm enhancements in town, city centres and neighbourhoods;
- Freight consolidation centres reducing lorry movements in our town and city centres;



- Electric and hydrogen charging point network to encourage lower carbon vehicles.

2.2 Core Strategies and Local Strategic Partnerships

- 2.2.1 Our timescale for JLTP3 coincides with the emerging Core Strategies (see Figure 2.1). Whilst these are all being produced to slightly different timescales there are common themes to each encouraging cycling, walking and public transport and making sure new developments are supported by transport infrastructure. The homes and jobs they expect to deliver is our biggest challenge.



- 2.2.2 Each council has a Local Strategic Partnership responsible for producing a Sustainable Community Strategy. These Strategies set out what type of place their areas should become by 2026, setting out challenges and how they will be addressed. As Figure 2.2 demonstrates the four Strategies broadly cover the same wide range of issues with transport just one of many themes. A key transport theme for each Strategy is highlighted.

Figure 2.1: Core Strategies

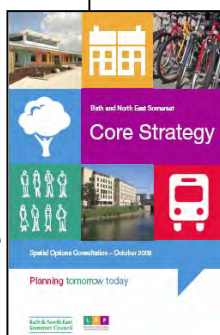
Bath and North East Somerset

Timescale

Consultation on the Core Strategy Spatial Options document has taken place and the Core Strategy will be published for consultation towards the end of 2010.

Transport issues

- Focus development in locations that have efficient and reliable public transport.
- Make sure that new developments are supported by new transport infrastructure.
- Locate and design new development in a way that reduces the need and desire to travel by car.
- Design development so that walking and cycling is encouraged by creating attractive segregated routes.
- Provide new and improved routes and integrated public transport services to allow greater choice and reduce congestion.



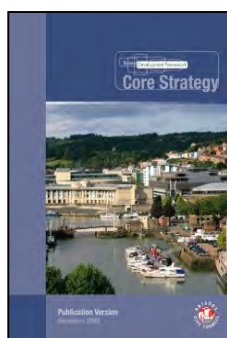
Bristol

Timescale

Following consultation, the Core Strategy publication version was submitted for independent examination in March 2010. The hearing sessions of the examination were held in June 2010.

Transport issues

- Build a low carbon economy in Bristol, across homes, business and transport.
- Rising to the challenge of climate change and peak oil and adapting to their consequences.
- Framework to enable delivery of the transport infrastructure required for Bristol to grow sustainably, improve accessibility, provide a step change in public transport and minimise the need to travel, especially by the private car.
- Reduce the impacts of transport on the environment, tackle congestion and encourage healthy lifestyles through widening travel choices, significant public transport schemes, provision of safe and attractive cycling and walking routes and promotion of smarter choices.



North Somerset

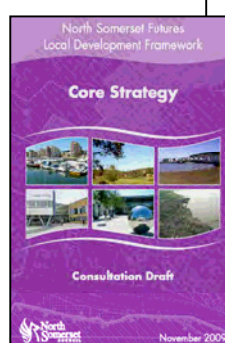
Timescale

Consultation on the publication version of the Core Strategy will commence in October 2010. The Core Strategy will then be submitted for independent examination in November 2011.

Transport issues

The Core Strategy's locational strategy aims to:

- Place new jobs, services and facilities where they are easily accessible by public transport, walking and cycling.
- Give existing and future residents a choice of how to travel.
- Accommodate the car, where car-based movement is unavoidable, but seek ways to minimise harm to the environment through good quality design and maximising car-sharing.



South Gloucestershire

Timescale

Consultation on the pre-submission Publication Draft Core Strategy took place between March and August 2010. Following the consideration of representations the Core Strategy will be submitted for independent examination in 2011.

Transport issues

- Reducing congestion by improving accessibility by means other than the private car.
- Improving and enhancing opportunities for walking, cycling and using public transport, and particularly to significant destinations, such as educational establishments, hospitals and employment areas.
- Delivery of strategic transport infrastructure that reduces congestion and improves accessibility by means other than the private car (such as the Greater Bristol Bus Network, Hengrove - North Fringe Package).

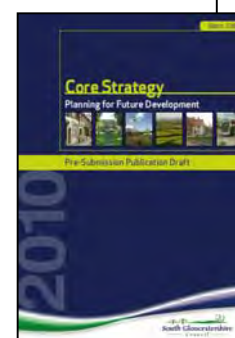


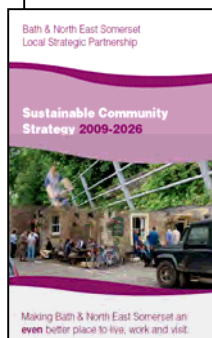
Figure 2.2: Sustainable Community Strategies

Bath & North East Somerset Sustainable Community Strategy

- A distinctive place that maintains and enhances its outstanding built and natural environment.
- Vibrant sustainable communities that are lively and inclusive.
- Communities where everyone fulfils their potential.

Key transport theme

Housing and employment growth is supported by appropriate improvements to transport infrastructure (especially public transport, walking and cycling).



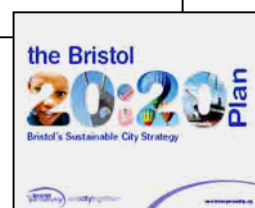
Bristol Partnership Bristol 20:20 Plan

- Stronger, safer communities
- Reduce health and wealth inequalities.
- Higher aspirations for children, young people and families.
- Sustainable prosperity.

Key transport theme

Climate change and the need to reduce energy use and carbon emissions from transport, homes and the economy.

Develop an integrated transport system that reduces congestion, increases the use of public transport and makes it easier and safer for cyclists and pedestrians.



North Somerset Improving our communities together

- Fair for everyone.
- Active, inclusive and safe.
- Well run.
- Environmentally sensitive.
- Well designed and built.
- Well connected.
- Thriving.
- Well served.

Key transport theme

Well connected with good transport and communication linking people to jobs, schools, health and other services.

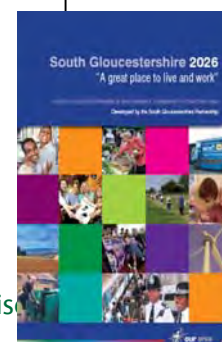


South Gloucestershire 2026 A great place to live and work

- Investing in children and young people.
- Being healthier.
- Modernising health and community care services.
- Managing future development.
- Promoting safer and stronger communities.
- Valuing the environment.
- Maintaining economic prosperity.

Key transport theme

To deliver improvements to the transport system that tackle congestion, minimise air and noise pollution, reduce high carbon travel, enhance travel choice (particularly for public transport, cycling and walking).



2.3 Transport Goals

2.3.1 The vision is just the starting point. We will deliver it through a Joint Local Transport Plan based around the five key transport goals of:

- Reduce carbon emissions
- Support economic growth
- Promote accessibility
- Contribute to better safety, security and health
- Improve quality of life and a healthy natural environment

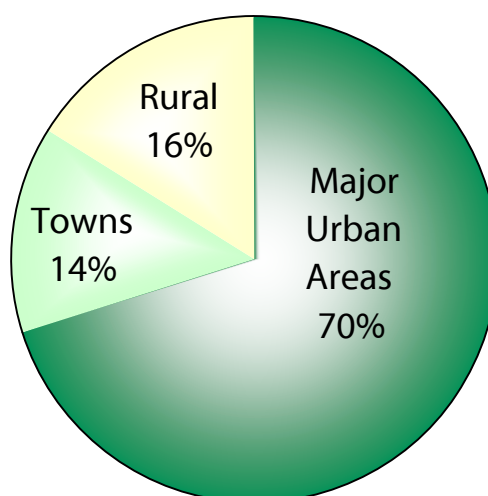
2.3.2 We believe these five goals provide a robust basis for the JLTP3, support the visions and help us focus on delivery. As Box 2c demonstrates we have taken each goal and shaped a series of challenges and issues of local importance around them backed up by robust evidence (see also Box 2b).

2.3.3 Looking forward to 2026 this vision needs to be seen in the context of a fast moving world with changing technology, lifestyles, national policies and Governments and the potential challenges of climate change and peak oil. Uncertainty over reduced levels of funding will influence what we can achieve.

2.3.4 We must also recognise that people's travel needs will vary according to where they live in the West of England (see Figure 2.3). One size of JLTP3 does not fit all. Look out for the where people live boxes at the start of key chapters. These boxes act as a guide to how the JTLTP3 will impact on different parts of the West of England.

2.3.5 We need to be practical and realistic but with one eye on the future. Indeed the city areas that will prosper in the 21st century will be those that successfully adapt their approach to travel and transport.

Figure 2.3 : Where People Live



Source: Census 2001

Major urban areas include Bath, Bristol (with the North and East Fringe) and Weston-super-Mare. Towns are free standing settlements including Yate/Chipping Sodbury, Thornbury, Clevedon, Portishead and Midsomer

Box 2b: Transport Studies

In 2009 the West of England was successful in obtaining funding from the Department for Transport for three studies covering:

- Carbon Impact Assessment – understanding the potential role of transport for reducing carbon emissions and the impact of additional measures.
- Network Performance Assessment – understanding the role of the Strategic Road Network (Motorways and Trunk Roads) and how it relates to the local network. Ensure Highways Agency and Local Authority programmes are understood and new measures on the two networks complement each other.
- Increasing social inclusions and supporting regeneration in South Bristol – understanding the role transport can play providing accessibility and creating the conditions to attract inward investment.

These studies help to strengthen the current evidence base with new research. Results have been used to inform the JLTP3.

2.4 Working together

- 2.4.1 This is a Joint Plan. We work together across a wide range of schemes including the Greater Bristol Bus Network, Cycling City, Diamond Travelcard, smartcards, Memoranda of Understanding with the rail industry, Highways Agency and health sector, bus Quality Partnership Schemes, revenue support for cross boundary bus services, major transport schemes and the Joint Transport Asset Management Plan.



2.5 Cross Boundary Issues

- 2.5.1 We are working with our neighbouring authorities (Wiltshire, Swindon, Somerset, Gloucestershire, Monmouthshire and the Welsh Assembly Government) identifying cross boundary transport issues and co-ordinating our LTPs. These are set out in Box 2d.

Box 2c : JLTP3 Goals, Challenges and Evidence (continued)

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 2006 to 2011 CO ₂ study. Greater Bristol Strategic Transport Study (GBSTS) (Atkins 2006) CO ₂ forecasts. West of England CO ₂ study. NI 186 CO ₂ emissions per capita. Carbon Impact Assessment Study (DaSTS 2010) Local Climate Impact Profiles. UK Climate Predictions data. Risk workshops. Environment Agency Weston-super-Mare study.	Improve public transport, walking and cycling to provide attractive and healthy alternatives to car travel. Rising sea levels, impact on coastal settlements and transport networks. Increased occurrence of extreme weather and resultant adverse impact (e.g. flooding).
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 emerging Core Strategies. • Access to employment growth areas principally from deprived neighbourhoods. • Reduce the adverse impact of traffic. • Increase the capacity and reliability of local and national transport networks. • Maintain, manage and ensure best use of our transport assets. • Address potential issues of peak oil. 	£600m cost of congestion per year by 2016 (Our Future Transport, 2008). Congestion Delivery Plan. Traffic growth, car ownership and use higher than national levels (National Travel Survey and 2001 Census data). Rail passengers doubled in ten years (West of England Rail Survey). New homes and jobs through the four Core Strategies by 2026. GBSTS 2006. Annual local authority road condition surveys. National Highways and Travel Surveys. Local Development Frameworks. Great Western Route Utilisation Strategy (Network Rail 2010). Electrification of Great Western Main Line (DfT 2009). Major transport schemes. Peak Oil report (Bristol Green Momentum Group, 2009).	Employment growth and regeneration areas in South Bristol, Emerson's Green Science Park, Weston-super-Mare. Highways Agency managed motorway and trunk road network. Key local transport corridors. Electrification of Great Western Main Line. Joint Transport Asset Management Plan. Rights of Way Improvement Plans. Cycling City. Bath World Heritage Site Freight including Avonmouth and Portbury docks. Bristol Airport. Filton Airfield.

Box 2c : JLTP3 Goals, Challenges and Evidence (continued)

Strategic Goal	Our challenge	Evidence	Local importance
Goal 3: Contribute to better safety, health and security	<ul style="list-style-type: none"> Significantly reduce the number of road casualties. Improve safety for all road users, particularly the most vulnerable members of the community. Encourage more physically active travel. Design out 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. Improve personal security on the transport network. 	<p>West of England Road Safety Partnership accident targets and data.</p> <p>Powered two wheeler, cyclist and pedestrian accident statistics.</p> <p>Traffic surveys.</p> <p>Air quality reviews and assessments.</p> <p>81,000 people suffer from ill health (2001 Census).</p> <p>Sustainable Methods of Travel to School Surveys.</p> <p>Obesity, health, physical activity and links to transport – various studies.</p>	<p>Promote walking, riding and cycling as healthier travel alternatives.</p> <p>Air Quality Management Areas in Bath, Bristol, Kingswood, Cribbs Causeway, Staple Hill and Keynsham.</p> <p>Provision and maintenance of cycle ways and footpaths.</p> <p>Implement the Rights of Way Improvement Plans (ROWIP).</p>
Goal 4: Promote accessibility	<ul style="list-style-type: none"> Improve accessibility for all residents to health services, employment, digital infrastructure and other local services. Assist neighbourhood renewal and the regeneration of deprived areas. 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>Some of the top 10% most deprived wards in the country are in Weston-super-Mare and Bristol (2001 Census).</p> <p>81,000 people suffer from ill health (2001 Census).</p> <p>80,000 people have mobility impairments (2001 Census).</p> <p>78,000 people aged 75+ (2001 Census).</p> <p>5% of population from ethnic minorities (2001 Census).</p> <p>Accession mapping.</p>	<p>Implement the Rights of Way Improvement Plans (ROWIP).</p> <p>Bristol Health Service Plan and Southmead redevelopment.</p> <p>Existing Joint Local Transport Plan Action Plans to improve access to health and employment.</p> <p>River, road and railway barriers to movement.</p> <p>Public transport in rural and remote areas.</p>
Goal 5: Improve quality of life and a healthy natural environment	<ul style="list-style-type: none"> Minimise the impact of transport on the natural and historic environment. Reduce the number of people exposed to unacceptable 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.</p> <p>GBSTS.</p> <p>Environmental Assessments.</p> <p>Department for Environment, Food and Rural Affairs noise mapping and action plans.</p> <p>Sustainable Methods of Travel to School Surveys.</p> <p>Joint Waste Strategy.</p>	<p>Bath World Heritage Site.</p> <p>Maintain and enhance historic town and city centres and villages.</p> <p>Public Realm and Movement Strategy.</p> <p>Weston-super-Mare seafront enhancements.</p> <p>Cotswold and Mendip Hills Areas of Outstanding Natural Beauty.</p> <p>ROWIP access to the countryside</p> <p>National Cycle Network.</p> <p>Avon Valley Railway.</p>

Box 2d Cross-boundary transport issues

Commuting

Commuting by car from towns and villages in Gloucestershire, Monmouthshire and the Eastern Valleys of Wales to Bristol North Fringe and from Wiltshire and Somerset into Bath and Bristol. Addressing travel to work from these areas through travel planning. Park and Ride facilities along the M4 corridor.

Demand management

Impact of parking and other management policies in the West of England on competing commercial centres.

Rail

Poor links from Chepstow and Lydney to Bristol. South East Wales Transport Alliance regional transport plan proposals and support for Greater Bristol Metro. Enhanced services needed to serve Somerset/Weston-super-Mare/Bristol/ Gloucester and West Wiltshire/Bath/Bristol corridors. Provision of alternative rail route in case of Severn Tunnel closure.

Buses and coaches

Service enhancement along corridors to/ from Bristol and Bath: benefits of proposed major schemes in reduced journey times. Ticketing schemes.

Cycle routes

National Cycle Network Route 24 Bath/ Radstock/ Frome, NCN 41 Bristol-Gloucester, NCN 33 Weston-super-Mare/ Bridgwater including crossing at Brean and other cross-boundary links.

Accessibility planning

Access to regional hospitals, major employment sites and further education affecting both urban and rural residents.

Roads

Working through South West Freight Forum on routes for cross-boundary HGV movements, especially between the West of England, Somerset and Wiltshire. Effect of incidents on M4/ M5. The use of A417/ A419 as diversionary road route when Severn Bridges closed.

Bristol Airport

Accessibility from areas outside West of England. Promotion of rail/ coach link. Congestion and road safety on the A38 corridor approaching the Airport from the south.





SEA

Assessment of potential cross-boundary environmental issues.

Closer Working Arrangements

Bristol City Council and Cardiff City Council announced in May 2010 ways in which the two authorities can work together for the benefit of both. Collaboration on such areas as High Speed Rail, tourism and wider economic development are being considered.

Find out more

-  Core Strategies of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  Sustainable Community Strategies of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  The vision for the West of England in 2026 and delivery priorities, 2006
-  Carbon Impact Assessment; Network Performance Assessment; Increasing social inclusion and supporting regeneration in South Bristol studies, 2010

3.1 Introduction

3.1.1 A key part of the development of the Joint Local Transport Plan 3 (JLTP3) was engagement with the public and partners. We wanted to know their views. This was crucial to ensure the Plan does not sit in isolation but has genuine ownership by the wider community. Set out below is a summary of the engagement approach taken and how it helped shape the final JLTP3.

3.2 Overall Approach

- 3.2.1 There were two main periods of engagement:
- Initial draft JLTP3 March to May 2010.
 - Engagement draft JLTP3 July to October 2010.

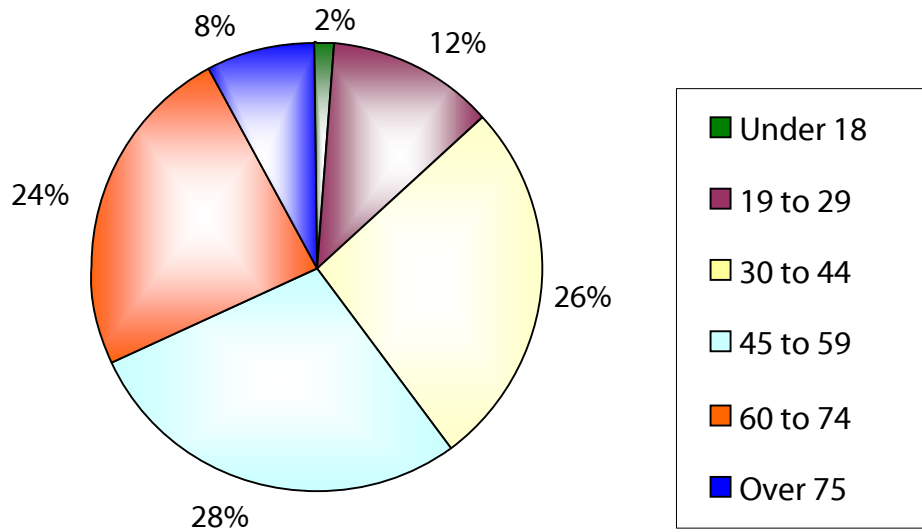
3.2.2 Our overall approach was aimed at conducting 'smart' and targeted public engagement, and ensuring partners and the public were given a genuine opportunity to comment on the emerging JLTP3. To achieve this, resources were targeted at different groups as set out in Box 3a. In all we received just under 4,500 responses.



Box 3a: Engagement Activities

- 'Let's talk: transport matters' branding to raise awareness and visibility of engagement;
- Newspaper and website advertising;
- Petrol pump advertising;
- Road signs on A4174 Avon Ring Road;
- On bus posters;
- Questionnaires (25,000) and online;
- Dedicated www.transportmatters.org website with online questionnaire and frequently asked question section;
- Focus groups;
- Transport Plan Commission (see Box 3b);
- On street promotion and questionnaires at 16 different locations;
- Joint Transport Forum events in July and September 2010;
- Business consultation;
- Council newspapers;
- Member workshops;
- Other events and meetings;
- Featured on blogs, websites, newspapers, television and radio.

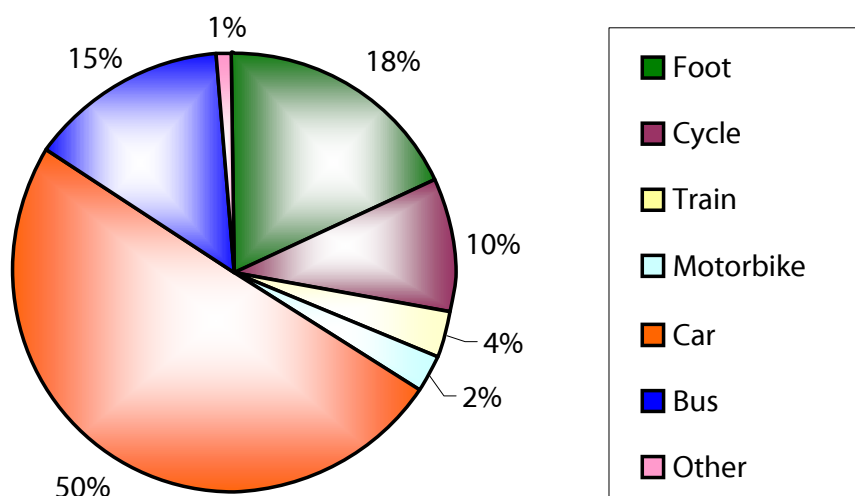
Figure 3.1 : Age



3.2.3 It was important to get as wide a cross section of people as possible responding to the engagement. Figure 3.1 shows this was achieved with a good representation of people aged between 19 and 59. Traditionally this group is under represented in consultations despite making up the bulk of the population.

3.2.4 Certain interest groups can dominate consultation exercises so we were keen to make sure all types of transport user were involved. We asked what was your main form of transport today and as Figure 3.2 reveals we got a good cross section of users responding. These broadly reflect Census figures for modal share.

Figure 3.2 : Main Form of Transport



Box 3b: Transport Plan Commission

An advisory body, the Transport Plan Commission, was set up to guide the development of JLTP3. Membership included: University of the West of England, GWE Business West, North Bristol NHS Trust, Bristol Primary Care Trust, The Care Forum, Campaign for Better Transport, Sustrans, Passenger Focus, First Bus, Wessex Direct, First Great Western, Network Rail, RAC, Government Office for the South West, South West Councils, South West Regional Development Agency, Highways Agency, Joint Local Access Forum and the North Somerset Local Access Forum.

Meeting four times over the course of 2009/10 the Commission flagged up issues around active health, value for money schemes including cycling and walking, economic growth, demand management, Public Rights of Way, transport user hierarchy, targets, wider impact of transport, potential conflict between transport goals, future funding, economic prosperity rather than economic growth, carbon reduction, horses and an ethical framework for decision making.

The Commission presented a statement to the 2 July 2010 Joint Transport Executive Committee on the need for:

- Cutting carbon emissions;
- Delivery in terms of prosperity and sustainability;
- Health promotion;
- Smarter choices alongside demand management.

3.3 How engagement shaped the final JLTP3

3.3.1 We asked people which of our five

transport goals they would focus on in the first three years of the JLTP3. Figure 3.3 demonstrates Support Economic Growth came out top with support for the other four goals evenly spread.

Figure 3.3 : What Would You Focus on in the First Three Years?

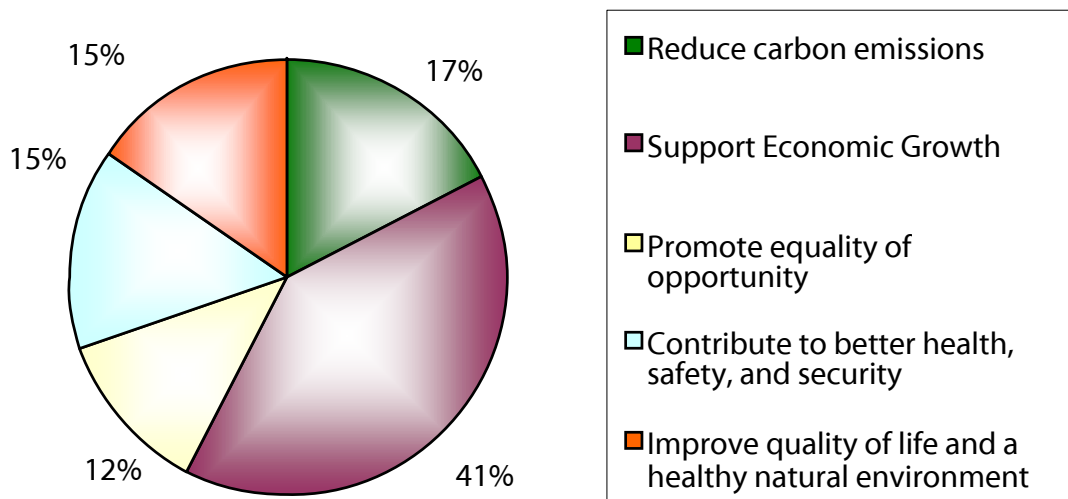
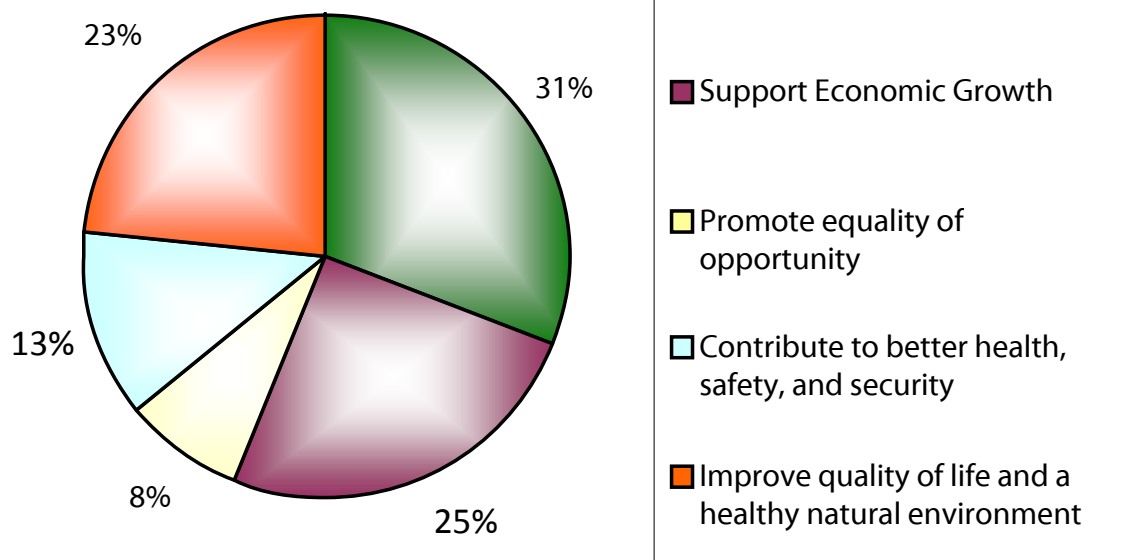


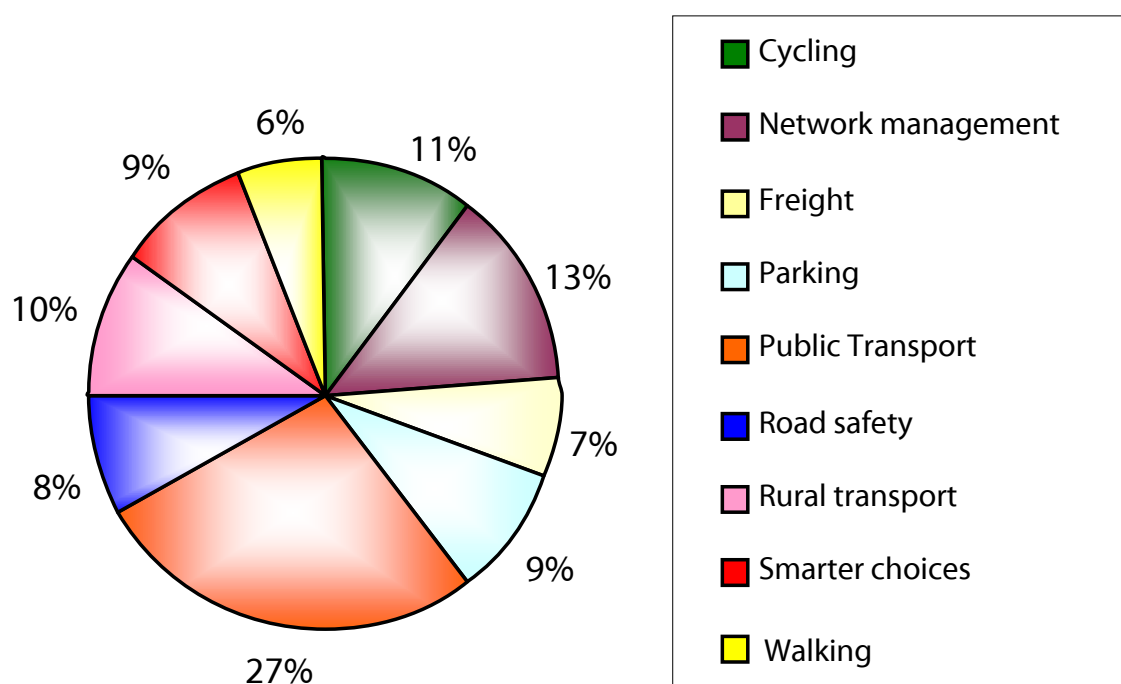
Figure 3.4 : Most Important Goal for the Future



3.3.2 Looking ahead we asked which of the same five goals is the most important for our future. Figure 3.4 reveals a shift towards reduce carbon emissions with support economic growth second.

3.3.3 Recognising pressure on council spending will increase we asked people to select three areas where they thought it was most important to focus investment. Public transport came out a clear first as Figure 3.5 shows.

Figure 3.5 : Most Important to Focus Investment



3.3.4 At the end of the questionnaire there was the opportunity to add other comments and many people did. The top three comments by a considerable margin were bus routes/services, bus fares and disability issues around using transport. Cycling, safety, accessibility and rail also featured.

3.3.5 Given the diverse nature of the West of England area we were keen to know if results were different according to where people live or how they travelled. Reassuringly there were no great differences.

3.3.6 To gain a deeper insight into what people thought about the key transport goals six focus groups covering age groups ranging from 16 to 60 plus disabled were held. Supporting economic growth had the most support followed by contributing to better health, safety and security and in third place promote equality of opportunity. The top investment decision was once again to support public transport followed by road safety with parking and network management slightly after that.

3.3.7 Looking at two groups on their own, young people and disabled, revealed some interesting results. For the disabled group the most important goal was to reduce carbon emissions whilst parking was the most important investment decision. Younger people favoured supporting economic growth and investment in public transport.

3.3.8 A good number of people and organisations were keen to send in detailed responses and these were very welcome. Issues raised ranged from

electric charging points, ferries, the importance of rail, interchanges including Plot 6 at Bristol Temple Meads, workplace parking levies, cycling and walking major scheme, the need for a walking target to the JLTP3 not being aspirational enough and a lack of vision. We have been able to take most of these on board.



3.3.9 The engagement results provided us with a strong steer for the JLTP3. Our focus is now on supporting economic growth and reducing carbon emissions supported by the three other transport goals. Public transport and in particular buses will be the main focus for investment.

3.3.10 A detailed report on the engagement results will be published alongside the JLTP3.

4.1 Background

4.1.1 European Directive 2001/42/EC and UK Statutory Instrument 2004/1633 both require an assessment of the impact plans such as the JLTP3 would have on the environment. This is known as a Strategic Environmental Assessment (SEA). The aim is to protect the environment and integrate environmental considerations into the JLTP3.

4.2 SEA Process

4.2.1 The SEA process starts with a Scoping Report leading to a full Environmental Report, SEA Statement, a Health Impact Assessment and an Equalities Impact Assessment. A separate Habitats Regulations Assessment has been carried out.

4.2.2 Organisations and groups asked to comment during the SEA process included: Natural England, English Heritage, Environment Agency, Avon Wildlife Trust, Bath Preservation Trust, Bristol Civic Society, Chipping Sodbury Town Trust, Clevedon Civic Society, Cotswolds Conservation Board, Campaign for the Protection of Rural England, Directors of Public Health for the four NHS Trusts, Forest of Avon Trust, Friends of the Earth, Joint Local Access Forum, Mendip Hills Area of Outstanding Natural Beauty, Royal Society for Protection of Birds and Weston Civic Society, Directors of Public Health and equalities officers from the four councils.

4.2.3 The SEA Statement will be published alongside the JLTP3 in March 2011.

4.3 Health Impact Assessment

4.3.1 The Health Impact Assessment (HIA) looked at the relationship between transport and human health and the likely effects of the JLTP3 on it. Based upon a review of evidence and consultation with the Directors of Public Health the HIA focuses on promoting active travel and reducing casualties from traffic accidents.

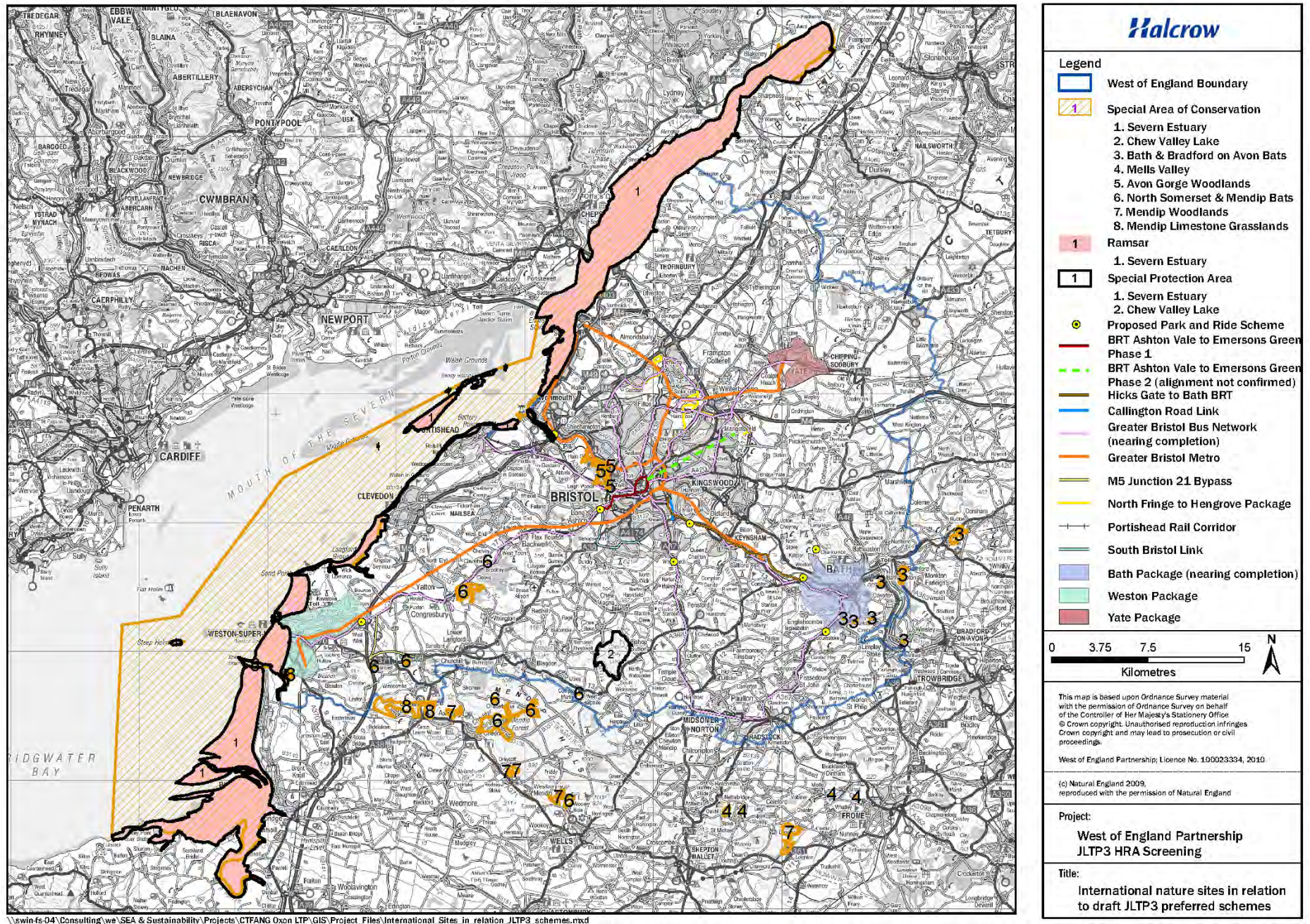
4.3.2 The HIA predicted the draft JLTP3's effect on active travel is likely to be positive in the short to medium term and uncertain in the long term due to doubts over levels of future funding. It recommended a greater emphasis on walking, cycling and smarter choices (see Table 4.2).

4.3.3 For reducing casualties the HIA predicts a minor positive effect in the short term and a major positive effect in the medium to long term. The HIA concludes that the continuation of safety initiatives under the JLTP3 is likely to maintain the trend towards lower numbers of people killed and seriously injured.

4.4 Habitats Regulations Assessment

4.4.1 The Habitats Regulations Assessment (HRA) considered whether the JLTP3 would have an adverse effect on the integrity of the nine International Conservation Designations located within or close to the West of England's borders and shown in Figure 4.1.

Figure 4.1: International sites in the West of England



4.4.2 The HRA and more detailed Appropriate Assessment (AA) identified that the JLTP3 could have potentially adverse effects on Avon Gorge Woodlands, Bath and Bradford-on-Avon Bats, North Somerset and Mendip Bats, Mendip Limestone Grasslands, Severn Estuary Special Area of Conservation, Severn Estuary Special Protection Area and Severn Estuary Ramsar.

4.4.3 The HRA and AA anticipates all of the potential effects can be avoided or mitigated at project level with a full HRA undertaken for each major transport scheme. No schemes in the JLTP3 were considered to have unavoidable or adverse effects on any international sites. Design changes, however, may be required to take into account the findings of individual project level HRAs.

4.5 Equalities Impact Assessment

4.5.1 The JLTP3 needs to address anti-discrimination and equalities legislation under a number of acts including the Race Relations [Amendment] Act 2000 by undertaking an Equalities Impact Assessment (EqIA).

4.5.2 Overall the EqIA found that the JLTP3 should have a positive impact for everyone living, working or visiting the West of England. Some of the area's most vulnerable groups will benefit especially people without access to a car and living in deprived communities.

4.5.3 No significant adverse impact was identified. Suggested mitigation ideas have been incorporated into the JLTP3 (see Table 4.2).

4.6 Option Testing

4.6.1 As required by the SEA legislation and taking all the above factors into account, the JLTP3's environmental impact has been assessed against a range of reasonable alternatives. Six alternative transport strategy options were identified and tested as well as a 'without the JLTP3' scenario (see Table 4.1 for results).

4.6.2 Where an option could potentially undermine a SEA objective, measures to reduce or avoid the adverse effect are put forward to help mitigate it. This process helps provide an appropriate level of environmental protection and improvement through the development of the JLTP3. Results from the option testing process helped to shape the final JLTP3 in terms of a preferred strategy and its accompanying Delivery Plan.

4.7 Environmental Report

4.7.1 The Environmental Report sets out results from the option testing process. Table 4.1 ranks the six options having tested them against all the SEA objectives. It includes a "Without Plan" scenario to reflect what would happen



with no JLTP3. More detail can be found in the Environmental Report published alongside the draft JLTP3 in July 2010.

4.7.2 Options 1, 4 and 5 all scored highly. Option 1 (Integrated Transport Package) is based around the JLTP 2006 to 2011 and forms the basis for the JLTP3 strategy. It ranked third in terms of its impact upon the environment and human health. Whilst it scores slightly lower than Option 5 (Demand Management) and Option 4 (Enhanced Smarter Choices) it does meet our wider JLTP3 goals and objectives for example on supporting economic growth. It is also based on good practice, experience and likely levels of future funding.

4.7.3 Option 6 (Road user/workplace charging) generates substantial income for transport investment but its environmental impact will depend on the choice of measures. This option contained both major public transport and various road schemes reflecting the emerging Core Strategies (see Box 11a). The road schemes reduce the overall environmental benefit of the option. A different combination of schemes would produce more benefits.

4.7.4 Whilst Option 1 is not the optimum one in terms of overall environmental benefit the Environmental Report includes recommendations to mitigate identified negative effects as well as enhance some of the positive effects so that they are more significant (see Table 4.2).

4.7.5 As Table 4.2 shows we have considered ways to take on these recommendations by strengthening the JLTP3 and enhancing the environmental benefits



of our preferred Integrated Transport option. Our work, for example on residents parking and Cycling City, demonstrates commitment towards capturing the benefits of demand management and smarter choice options.

4.7.6 The SEA is a valuable process for flagging up environmental issues and identifying mitigating measures. Local authorities are not obliged to choose the most environmentally friendly option. Issues of funding, feasibility and the need to deliver against a range of other objectives such as supporting economic growth and promoting accessibility must be taken into account in selecting a preferred option. Our JLTP3 aims to strike the right balance. We think the strategy set out in the JLTP3 achieves this.



Table 4.1: SEA Options Environmental Performance

Rank in environmental performance	Option	No. major positive effects (significant)	No. minor positive effects (not significant)	No. major negative effects (significant)	No. minor negative effects (not significant)	No. uncertain effects	No. neutral effects	Overall score	Comment on options' performance
1 st	5. Demand management	6	4	0	2	1	0	13	Performs better as "locks in" benefits of reduced congestion by forcing people into more cycling and walking or public transport in urban areas. Likely to be unpopular and less benefit for rural areas.
2 nd	4. Enhanced Smarter Choices	5	8	0	1	2	2	11	Large scale application of smarter choices effective in causing modal shift with cumulative impact on air quality, health, carbon and the environment. Revenue dependent and a limited major transport scheme programme.
3 rd	1. Integrated Transport (Preferred Option)	2	8	0	3	0	0	9	Balanced approach based on existing JLTP 2006 to 2011. Meets wider economic, regeneration and accessibility objectives. Recommended mitigation measures (see Table 4.2) will enhance environmental benefits.
4 th	3. Public Transport	1	4	0	3	2	0	5	Enhanced public transport services and infrastructure. Implementing infrastructure will impact on the environment.
5 th	6. Road User/Workplace Charging	6	2	3	2	2	0	4	Generates substantial income for transport investment but its environmental impact will depend on the choice of measures. Includes major public transport schemes. Inclusion of various road schemes reduces overall environmental benefit. Charging element is generally positive.
6 th	Without the JLTP3	0	0	1	10	1	1	-13	Assumes no major transport schemes (beyond those reaching Programme Entry by 2011) and no overall strategy co-ordinating funding and implementation.
7 th	2. Highway Improvement	0	2	5	4	0	0	-14	Includes various road schemes which will reduce overall environmental benefit. Supports wider regeneration and economic growth objectives.

Table 4.2 : Mitigation Measures

Mitigation measure	JLTP3 action
Environmental Report/Health Impact Assessment (HIA)	
Include measures to lock in the benefits of reduced congestion.	JLTP3 has retained a strong focus on public transport, walking and cycling throughout. Public realm projects in Bath, Bristol and Weston-super-Mare will lock in the benefits (Chapter 9).
Use local parking charges to deter car use in urban areas.	Parking and demand management sections (Chapter 6) strengthened. Bristol City Council to consider workplace parking levies (Chapter 6).
Implementation of 20mph zones in residential areas.	Bristol 20mph pilot schemes to be rolled out across the city (Chapter 6).
More urban tree planting.	Public realm projects in Bath, Bristol and Weston-super-Mare will increase opportunities for tree planting (Chapter 9).
Improving highway drainage.	Included under adapting to climate change strategy (Chapter 5).
Undertake detailed environmental assessments for park and ride.	New park and ride sites will include a full Environmental Impact Assessment.
Protect and enhance roadside habitats as part of routine maintenance regimes.	To consider as part of ongoing review of the Joint Transport Asset Management Plan.
Equalities Impact Assessment	
Mobility of any disabled person will not be compromised.	
Easy access to and from public transport interchanges including Park and Ride.	Transport user priorities and mobility strategy (Chapter 7). The needs of disabled people are incorporated throughout the JTLP3.
Include mobility issues as part of a resilient and adaptable transport network.	Equality Impact Assessments will be carried out for all projects.
Ensure all transport schemes are Disabled Discrimination Act compliant.	
Ensure physically active travel does not limit disabled travel options.	

Permit cycles on trains and buses.	Operator issue. Encourage through Memorandum of Understanding with the rail industry and Bus Quality Partnership schemes (Chapter 6).
Create new communities in proximity to existing communities and public transport services.	Core Strategy issue. JLTP3 supports the Core Strategies.
Ensure accessibility to employment growth areas is via a regular and reliable public transport system.	Chapters 6, 7 and 11 emphasise importance of public transport, major transport schemes and growth areas.
Safeguard disabled parking spaces.	Covered in draft Parking Supplementary Document.
Include disabled groups in road safety strategies.	Covered in draft Road Safety Supplementary Document.
Consider making specific reference to ways to address racial hate crime on public transport.	Personal security issues added to Strategy in Chapter 8.
Ensure that all areas are accessible by a range of transport modes and that no people are left isolated in the effort to preserve the natural and historic environment.	Access to leisure and countryside is a key part of Chapter 9.
Habitats Regulations Assessment (HRA)	
Further HRA work is needed at project level (i.e. for each major transport scheme).	All major transport schemes will be required to undertake a HRA.
Consultation responses	
Strengthen references to Strategic Green Infrastructure Planning.	Added to Figure 9.1, Box 9c and sections 9.4.3, 9.6.1, 10.1.3 and 10.2.2.
Develop a highways maintenance biodiversity action plan as part of Joint Transport Asset Management Plan.	Biodiversity and list of sites added to Joint Transport Asset Management Plan.
JLTP3 needs to ensure that children can travel independently.	Added to Active Health Strategy in Chapter 8.
Consider a commitment for ensuring HIAs are undertaken at project level.	Consideration of HIA at project level.

Find out more



Appropriate Assessment under the Habitats Regulations, November 2010



Environmental Report, July 2010



Equalities Impact Assessment, July 2010



Habitats Regulations Assessment, July 2010



Health Impact Assessment, July 2010



SEA Scoping Report, December 2009



SEA Statement (to be published March 2011)

Strategy Summary

- Climate change is happening and the challenge is for transport to reduce greenhouse gas emissions throughout the life of the JLTP3;
- Focus on the promotion of lower carbon travel choices, providing alternatives to the car, influencing travel behaviour, working with the freight industry and managing demand;
- Adapting to climate change by increasing the transport network's resilience to extreme weather events and seasonal changes.

With an area as diverse as the West of England we need to recognise our Joint Local Transport Plan 3 (JLTP3) will have a different impact according to where you live. One size of JLTP3 does not fit all. Highlighting this diversity is the box below which acts as a guide to the varying impact of measures to reduce carbon emissions.

Indicators and targets

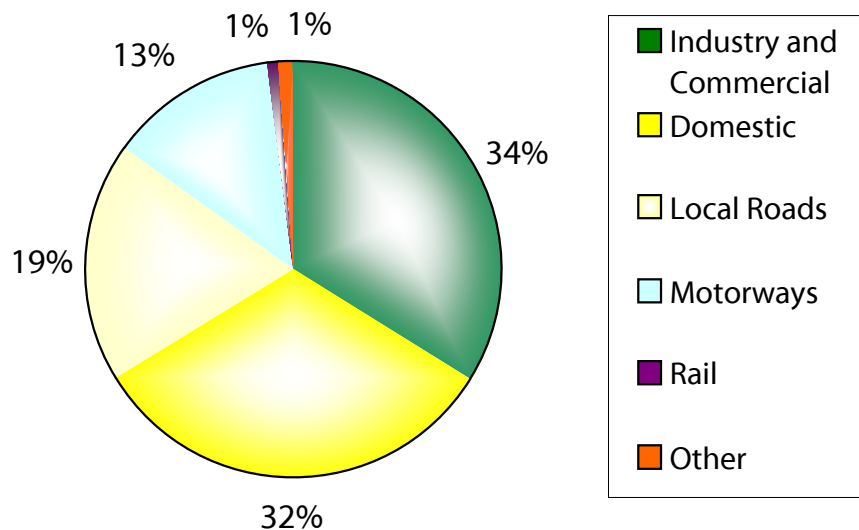
Indicators and targets will be added following a review of funding and resources.

5.1 Background and evidence:

- 5.1.1 The UK Climate Change Act has established legally binding targets requiring the Government to reduce the country's CO₂ emissions by 34% by 2020 and 80% by 2050 from a 1990 baseline. Road transport must make a contribution to these targets and a low carbon and resilient transport system will be integral to the economic buoyancy of the West of England.
- 5.1.2 The DfT's Climate Change Adaptation Plan for Transport 2010-2012 states that 'adapting the UK's transport system to the projected impacts of climate change is an essential part of building, maintaining and operating a transport system which continues to support national economic competitiveness and growth'.
- 5.1.3 In 2008, road transport represented 32% of West of England CO₂ emissions (see Figure 5.1). This amounts to some 2.16 tonnes per head of population, similar to the national average of 2.13 tonnes.
- 5.1.4 Road transport accounts for 92% of emissions from domestic transport in the UK (which excludes international aviation and shipping). Within road

Where people live	Contribution to Goal	Impact
Major Urban Areas	Significant	Sustainable travel choices widened
Towns	Medium	Some widening of sustainable travel choice
Rural	Some	Limited scope, car use dominant

Figure 5.1: CO₂ Emissions in West of England



Source: Department of Energy and Climate Change Sept 2010; excludes domestic air and shipping

transport 53% of emissions comes from passenger cars, 20% from Heavy Goods Vehicles (HGVs), 15% from Light Goods Vehicles (LGVs) and 5% is from other road transport such as buses.

5.1.5 Table 5.1 shows the relationship between CO₂ emissions, car trips and distance travelled. This information has been extracted from tables and charts in the DfT's Regional Data Book and Carbon Pathways Analysis (July 2008) and relates to Great Britain as a whole.

5.1.6 The DfT's Carbon Pathways work also looks at journey purpose by distance and CO₂ emissions and shows that nationally:

- The relative concentration of transport emissions is on major routes and in major urban areas rather than rural locations;

- Although short trips (less than five miles) account for a large proportion of total trips by household car, they produce a smaller share of CO₂ emissions. Longer trips (over 25 miles) account for a smaller share of total trips but produce a higher proportion of emissions (see Table 5.1);
- Certain journey purposes are associated with a greater proportion of CO₂ emissions than the proportion of passenger distance travelled, mainly commuting and, to a lesser extent, business trips. This is because trip lengths, journey speeds, type of vehicle and vehicle occupancy rate are also taken into account;
- Emissions from HGVs and LGVs account for over a third of road transport CO₂ emissions (see 5.1.4). Nationally LGV traffic (i.e. vans and other light vehicles) is forecast to increase significantly, partly due to the trend in home deliveries.

Table 5.1: Profile of CO₂ emissions by car trips and distance travelled – Great Britain

Journey distance	% of total car trips	% of total distance travelled by car	% of CO ₂ emissions
Under 1 mile	7%	1%	1%
1-2 miles	17%	2%	4%
2-5 miles	33%	12%	14%
5-10 miles	21%	16%	18%
10-25 miles	16%	26%	25%
25-50 miles	4%	16%	15%
50-100 miles	2%	13%	11%
100 miles +	1%	14%	12%

Figures have been rounded

5.1.7 Although the Climate Change Act target is to achieve a substantial reduction in emissions, national road transport emission levels in 2007 were in fact 11% over the 1990 baseline level and without significant action are forecast to increase even further. This means that as we move into the 21st Century we will need to adapt our approach to travel and transport.

5.1.8 The Government's strategy for achieving the national targets is set out in the Low Carbon Transition Plan (July 2009) and is broken down into five year 'carbon budgets' starting 2008-2012, as set out in the 2009 budget statement. Decarbonising transport is seen as a key part of reducing carbon emissions and the national plan states "...by 2050 we can expect to see a fundamentally different transport system in our Country. Road and rail transport will be largely decarbonised".

5.1.9 Transport's contribution to the Low Carbon Transition Plan strategy is put forward in Low Carbon transport: A greener future (DfT July 2009). This sets out measures to achieve a 14% reduction in emissions from a 2008 baseline by 2020 through:

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

5.1.10 The DfT expects market mechanisms, new technologies and fuels to make a significant contribution towards meeting the national 2020 carbon reduction target with most action taking place at national level. The principal role of local authorities, as reiterated in the Transport Carbon Reduction Delivery Plan (DfT March 2010), is in developing a strategy and implementation plan that take significant steps towards promoting lower carbon choices, looking not only

to 2020 but taking a longer term view to 2050.

5.1.11 The 'decarbonising' of travel and transport cannot be viewed in isolation. It has to be seen as part of the vision and overall objectives for our transport system and as part of the four councils' wider agenda to reduce carbon emissions. All four councils have set short term targets for reducing CO₂ emissions in their Local Area Agreements. Bristol City Council has gone further by adopting a local target of 40% reduction of CO₂ emissions from 2005 to 2020. See Box 5a. The City Council is one of nine local authorities participating in a Government initiative to pilot 'local carbon frameworks' (Department of Communities & Local Government, January 2010).

5.1.12 Table 5.2 shows the CO₂ emissions in 2008 by industry and commerce, domestic and road transport in the West of England estimated by DECC. Between 2005 and 2008 DECC estimates that emissions from local industry and commerce decreased by about 18% and domestic emissions

went down by some 3%. In the same period local road transport emissions dropped by almost 5% and emissions from motorway traffic by only 1.3%.

5.1.13 We can help support the introduction of new vehicles and fuels, for example hybrid buses and provision of charging facilities for electric cars. (See Box 5b for how this is starting to happen). There are also opportunities to work with the freight industry on achieving more efficient distribution, including provision of freight consolidation and greater use of rail, as well as promoting 'eco driving' and introduction of lower carbon vehicles.

5.1.14 Mapping in the DfT Carbon Pathway Analysis shows that the largest CO₂ emissions from transport in the West of England are, not unexpectedly, where traffic levels are greatest. This includes our major urban areas, along the sub-region's motorways and other busy roads. Within our major urban areas the normal low carbon choice, especially for short journeys, will be safe, reliable comfortable and affordable public transport combined with walking and

Box 5a: Bristol City Council target

In November 2009 Bristol City Council adopted a target to reduce CO₂ emissions by 40% by 2020 from a 2005 baseline. In February 2010 the Council adopted a Climate Change and Energy Security Framework which sets out how they will work with partners to deliver this target. The framework also includes energy and resilience targets for Bristol's road transport, business/public sector and homes, with clear accountabilities and monitoring.

The City Council proposes that each sector will reduce emissions by 25% by 2015 and 40% by 2020 at a steady rate of change. Whilst reducing congestion and managing traffic flow will deliver some carbon benefits, it is recognised that achievement of the 40% target for transport will require a reduction in car-based trips within the urban area.

Table 5.2 CO₂ Emissions in West of England 2005 to 2008 (kilotonnes)

Year	Industry & Commercial	Domestic	Local Road Transport	Motorways	Other	Total	Per Capita Emissions - transport
2005	2,987	2,408	1,467	928	90	7,880	2.32
2006	2,907	2,421	1,438	908	89	7,763	2.24
2007	2,845	2,338	1,458	940	90	7,671	2.26
2008	2,448	2,338	1,397	916	95	7,193	2.16
Change 2005 to 2008 %	-18.0	-2.9	-4.8	-1.3	+5.5	-8.7	-6.9

Source: estimates by DECC (Sept 2010). Excludes rail

cycling. Low carbon choices can also be promoted for residents of our towns by providing better public transport and walking and cycling facilities. Careful planning will be needed to link with the transport networks in our rural areas, where cars will continue to play a major role.

5.1.15 To widen low carbon choices for longer distance commuting and business trips means making public transport a more



attractive alternative to the car and promoting car sharing. Increases in home working, tele/video/web-conferencing and improvements in Digital Infrastructure (see Chapter 7), such as high speed broadband, would reduce the need to travel. Local Development Frameworks also have an important role in steering development to locations well served by public transport with good access to services and facilities and well developed walking and cycling networks. Enhanced park and ride provision can help reduce emissions on urban roads.

Box 5b: Green Transport Initiatives

Green Bus Fund

In 2010 Bath & North East Somerset Council was awarded £127,000 from the Department for Transport's Green Bus Fund. The initiative builds on the trial of a low carbon bus in Bath as part of the EU CIVITAS programme. Bath is one of five European cities involved in the CIVITAS programme aimed at achieving more sustainable, clean and energy efficient urban transport systems.



City Car Club in Bath

Under the EU CIVITAS Renaissance project Bath and North East Somerset Council are working with the City Car Club in trialling 6 new diesel electric vehicles, comparing them with conventional vehicles. Electric powered cycles are also being trialled.

Greenfleet for NHS Staff

The Avon and Wiltshire Mental Health Partnership NHS Trust is piloting the use of very low emission vehicles and 20 electric bikes for staff use at 7 sites. Key features are:

- Very popular with staff with 100% positive feedback;
- 23 low emission pool cars forecast to account for 3.5% of the Trust's total staff mileage a year, reducing CO₂ emissions by 18 tonnes;
- Cost of leasing pool cars and electric bikes can be met from the savings created;
- Sustainable 'brand' gives the pilot credence;
- West of England Gold travel plan award in 2009.

Expansion of the scheme is proposed with the setting up of Mobility, a Sustainable Travel Community Interest Company to provide fleet management of very low emission vehicles including cars, electric bikes and cycles for large publicly funded employers.

Plugged-In Places

Bristol City and Bath and North and East Somerset Councils have been invited to join an alliance of local authorities, the Welsh Government, electricity companies and car manufacturers along the M4 corridor between Swindon and Cardiff seeking a Government grant to install infrastructure for electric vehicles. The funding under the Plugged-In Places initiative would pay for 50% of the cost of providing charging points for public car parks and private off road commuter parking.

Council Fleet Fuel Saving

Bath & North East Somerset Council has introduced a training programme for its 300 vehicle fleet drivers aimed at achieving a 10% saving in fuel. Drivers are being trained to be more aware of ways of saving fuel for example by using the correct gear for the road conditions and avoiding heavy braking.

Box 5c: Key health messages

- Reduction in the distance travelled by motor vehicles in urban areas could improve the health of urban residents, for example by lessening the damaging effects of air pollution and making roads safer for pedestrians and cyclists;
- Increases in the amount of walking and cycling would also lead to large health benefits such as reducing obesity and lowering rate of chronic diseases through greater levels of physical activity; and
- Increasing the resilience of transport infrastructure would manage potential threats to the safety of the travelling public e.g. from flooding or ground subsidence undermining structures.

5.1.16 The Delivering a Sustainable Transport System West of England Transport Study, 2010 provides a useful tool for developing measures to reduce greenhouse gas emissions and complement ongoing programmes (see Box 2b). The study suggests a maximum 16% reduction in carbon emissions could be achieved between 2006 and 2020 by taking into account the implementation of a range of transport measures. These include bus priority corridors, rapid transit routes, park and ride, rail, cycling and walking investment as well as motorway management, an extended smarter choices programme, fleet improvements as well as national forecasts and measures. Whilst this is still above the DfT's own 'Low Carbon Transport: A greener future' target of 14% it assumes a fully funded programme of schemes.

5.1.17 The Comprehensive Spending Review of 2010 provided details of overall levels of funding including a reduction in the Integrated Transport Block (see Chapter 10). This will have large implications on our ability to meet targets. Even with successful bids to the Local Sustainable Transport Fund we will need to keep under review the JLTP3's contribution to reducing carbon emissions.

5.1.18 Reduction in transport-related greenhouse-gas emissions through less use of motor vehicles and an increase in the distances walked and cycled can have important health benefits (see Box 5c). The health benefits of increased walking and cycling are set out in Chapter 8.

5.1.19 All four councils have undertaken comprehensive assessments of the risks and opportunities arising from climate change in order to help prioritise areas for action. Work on adaptation action planning is in progress.

5.1.20 Climate change is expected to increase the frequency and severity of extreme weather including flooding, storms and heatwaves. All of these could disrupt transport infrastructure with accessibility implications for people, businesses and emergency services. A summary of the main identified transport-related risks and opportunities from a changing climate are set out in Table 5.3.

5.1.21 Management of transport infrastructure also provides opportunities to adapt to other potential impacts of climate change: see Box 5d.

Table 5.3: Transport Infrastructure Risks and Opportunities from a Changing Climate

Risk	Impact
Increasingly frequent and more severe weather:	Damage and disruption to strategic transport infrastructure:
a) storms and gales	Principally Severn Bridge crossings, mainline railway lines, telecommunications and key arterial routes.
b) heatwaves	Mainline railway lines due to buckling rails and melting roads plus thermal expansion bridges and flyovers.
c) flooding	Especially at Severnside, Portbury and Avonmouth, Bristol City Centre and near main rivers i.e. the Avon and River Frome, riverside footpaths and scouring of bridge footings. Also flash flooding affecting local roads.
d) sea level rise	Coastal flooding, damage and disruption to strategic transport infrastructure, including Avonmouth, in Bristol City Centre and near main tidal rivers.
Seasonal change:	
Changing ground conditions	Increased risk of subsidence with potential impact on strategic transport infrastructure e.g. broken water mains, damage to embankments and cuttings.
Warmer summers	Increased potential for road surfaces to melt under hotter temperatures. Disruption to strategic transport infrastructure chiefly roads due to increased car use with visitors travelling into the area, residents travelling to the coast/surrounding countryside and journeys within the urban areas.
Milder winters	Increased success in creating a modal shift away from car use towards increased levels of walking and cycling. Reduction in disruption caused by snow/icy conditions and frost damage. (This could however decrease preparedness and budgets for dealing with severe winters when they do happen).
Wetter summers and winters	Less walking and cycling, and more car use.

Box 5d: Adapting to Climate Change - Opportunities

Opportunities for adapting to climate change present themselves through a wider approach to infrastructure design and management, such as:

- Helping wildlife adapt to climate change e.g. through inclusion of wildlife corridors to bolster and connect existing habitats.
- Helping reduce the urban heat island effect through appropriate surfacing e.g. cool pavements, and increasing tree canopy coverage.
- Amelioration of flooding/pinch points e.g. sustainable urban drainage.
- Improving the resilience of communication systems e.g. integrating ICT cabling networks.
- Total Place project (led by Bath and North East Somerset Council) on carbon management will analyse carbon footprints across the public sector and assess the economic impact of climate change and peak oil.
- Suburban Neighbourhood Adaptation for a Changing Climate project aims to identify successful, practical and acceptable adaptation and mitigation measures. Bristol is one of three case study cities. The final report is expected in August 2012.

5.2 Strategy

5.2.1 The West of England recognises the importance of tackling carbon reduction and climate change and the wide range of agencies and bodies who need to contribute through its commitment to:

- Promote sustainable patterns of development, design and construction through Local Development Frameworks;
- Provide support and co-ordination of activity to achieve low and zero carbon new development by 2016 (housing) and 2019 (non domestic sector);
- Stimulate the increased installation of renewable technologies;
- Support carbon reductions through modal shift and changing travel behaviour;

- Embed long term carbon management and resource efficiency through business planning and investment and economic development;
- Increase business preparation for the opportunities and risks of climate change.

5.2.2 We see our major role in reducing carbon emissions as focusing on:

- promotion of lower carbon choices;
- encouraging alternatives to the car;
- influencing travel behaviour and managing travel demand (see Chapter 6 Support Economic Growth);
- workplace and school travel plans;
- personalised travel planning;
- improvements to walking and cycling infrastructure;
- public transport enhancements;
- integration of travel modes;



- better information;
- demand management and reducing the need to travel through technology and spatial planning;
- continued consideration of the carbon impact of the JLTP3 programme and results used to assist scheme prioritisation.

5.2.3 These measures would be delivered with funding from the JLTP3, major transport schemes, local sources and, potentially, the national Local Sustainable Transport Fund and other funding opportunities (see Chapter 10).

5.2.4 A second strand of our strategy is to help support the uptake of national measures aimed at reducing emissions through:

- new vehicle technologies and fuels;
- working with bus operators and the freight industry on appropriate measures including the promotion of 'eco-driving';
- improvements in council vehicle fleets;
- working with others, for example car clubs, to achieve greater use of more fuel-efficient vehicles;
- provision of infrastructure needed for the wider introduction of electric cars

and other vehicles, for example electricity charging points linked to the Government's plans for a national recharging network;

- using CO₂ reduction as a criterion in councils' procurement of vehicles and infrastructure works.

5.2.5 Each of the four councils is taking action to cut their direct carbon emissions, including those from transport, and to adapt to the impact of climate change. This is the third strand of our strategy and complements the wider action being promoted through the respective Local Strategic Partnerships (see Figure 2.2).

5.2.6 To help inform adaptation planning for climate change we will:

- identify areas of the transport system most vulnerable to extreme weather including different types of flooding and high winds;
- use work undertaken as part of the Strategic Environmental Assessment to assess the vulnerability of JLTP3 options and proposals to future weather and climate;
- assess the impact of hot and wet weather on transport users, including the behaviour of pedestrians, cyclists and public transport passengers;
- assess the technical performance of drainage systems; and
- understand the vulnerability of distribution systems to network disruption.

5.2.7 To help to adapt to climate change we will:

- develop a programme of measures to manage and reduce the vulnerability of

transport infrastructure to weather and climate; and

- a programme of measures to help deliver climate change adaptation opportunities.

5.3 Future ideas to 2026

- 5.2.8 Throughout the life of the JLTP3 our Strategy will continue to develop. Possible ideas for the future are in Box 5e.



Box 5e: Future Plan Ideas

- Measures to manage and advise on severe weather and disruption (particularly for businesses and the public);
- Investigate low to medium cost schemes (for example resurfacing roads with more heat resistant materials and strengthening embankments);
- Identify priority areas for drainage improvement (SEA Environmental Report recommendation); and
- Explore options for hydrogen powered public transport.

Find out more

-  Adapting to Climate Change, Defra 2008
-  Carbon emission data for local authorities, DECC 2010
-  Climate Change Adaptation Plan for Transport 2010-12, DfT 2010
-  Delivering a Sustainable Transport System West of England Transport Study, 2010
-  Low Carbon Transition Plan, UK Government, 2009
-  Pilot 'local carbon frameworks,' DCLG 2010
-  Regional Data Book and Carbon Pathways Analysis, DfT 2008
-  Transport Carbon Reduction Delivery Plan, DfT 2010
-  UK Climate Change Act, 2008

Strategy Summary

- Support the Local Enterprise Partnership;
- Tackle congestion and improve journey times;
- Provide for increased public transport, walking and cycling;
- Influence travel behaviour;
- Manage demand through highway improvement, management and maintenance;
- Ensure access to employment growth areas;
- Support delivery of houses and jobs through the emerging Core Strategies;
- Maintain, manage and ensure best use of transport assets;
- Address the potential issues of Peak Oil.

With an area as diverse as the West of England we recognise our Joint Local Transport Plan 3 (JLTP3) will have a different effect according to where you live. One size of JLTP3 does not fit all. The box below highlights the varying impact of measures to support economic growth.

Indicators and targets

Indicators and targets will be added following a review of funding and resources.

6.1 Background and evidence

6.1.1 The West of England is one of the fastest growing economies in the UK and the economic hub for the South West aiming to generate 95,000 more jobs over the next 20 years. We are committed to building on this success and supporting sustainable growth and through our Local Enterprise Partnership. Indeed we are well placed to assist national economic recovery with unique strengths to help do this including:

- Four top class universities strong in science, high technology and creative industries;
- A highly skilled workforce;
- A diverse and resilient economy;
- Priority high growth sectors for aerospace, defence and advanced engineering, environmental technologies/marine renewables, creative industries and media, microelectronics and tourism.

6.1.2 Our Local Enterprise Partnership is committed to facilitating sustainable growth on a local and national scale. We will build on our high quality environment, our high quality business, our highly skilled workforce and

Where people live	Contribution to Goal	Impact
Major Urban Areas	Significant	Reduced congestion on main corridors, new housing and jobs, public transport, walking and cycling more attractive
Towns	Medium	Local congestion tackled, public transport, walking and cycling more attractive
Rural	Some	Management of inter-urban roads, bus and rail commuting more attractive than car use

opportunities to develop a low carbon economy at the same time addressing the regeneration and skills needs of our existing disadvantaged communities. Our actions will lay the foundations for a long term sustained, prosperous and productive West of England and national economy.

6.1.3 We are well served by the M4 and M5 motorways and by extensive rail links to London, South West, South Wales and the Midlands. Bristol Airport is one of the fastest growing regional airports in the UK and offers access to 144 destinations in 28 countries. The Port of Bristol is one of the most productive and technically advanced in Europe. We are the transport hub for the South West.

6.1.4 A key priority for business is the delivery of major transport improvements. The links between transport, our major scheme programme and the economy are shown in Figure 6.1. Our task will be to co-ordinate the transport infrastructure to serve development and regeneration areas, working with the development industry and other partners, whilst addressing pressures on the existing transport system.

6.1.5 Our strategy for supporting economic growth by providing an affordable, low carbon, accessible, integrated, healthy, safe and reliable transport network taking people, goods and services where they want to go is set out at the end of this chapter. Below we focus on how public transport, cycling, walking, rail, powered two wheelers, demand management and asset management will contribute.

6.2 Buses, Cycling and Walking

6.2.1 We are already improving public transport through the Greater Bristol Bus Network (see Box 6a), and smartcards (see Box 6b) and increasing walking and cycling (see Box 6c).

6.2.2 Engagement results (see Chapter 3) revealed the importance of focusing investment on public transport. First and foremost this will be on buses with for example the development in the early years of the JLTP3 of Quality Partnership Schemes (QPS) for each Greater Bristol Bus Network corridor.

6.2.3 The first QPS, for the A367 corridor between Midsomer Norton and Bath, is due to be made in early 2011. It takes advantage of opportunities arising from the 2008 Local Transport Act, to provide greater influence over fares, frequencies, vehicle and infrastructure standards to further boost the quality of bus travel and passenger numbers. The A367 QPS will form the template for the remaining corridors with consistent standards, complementary service and ridership benefits.

6.2.4 The importance of public transport is shared across all four councils with for example joint revenue support for some cross boundary bus services and the Diamond Travelcard.

6.2.5 Our Core Strategy land-use planning policies seek to co-locate homes, jobs and services, such that people can walk or cycle. We believe that if we

Box 6a: Greater Bristol Bus Network

The Greater Bristol Bus Network (GBBN) was developed as a cross boundary scheme, in partnership with local bus operator First, to tackle public transport provision in the area.

£70 million of investment (£42million from the DfT) has brought key benefits via:

- Improved service and reliability of journey times as a result of bus lanes, intelligent traffic lights and improved junction layouts, 22 with bus priority signals;
- £20 million investment in 40 new low floor low carbon emission buses allow wheelchairs and buggies to get on an off with ease and provide a more comfortable ride for all;
- New shelters, improved lighting and improvements at over 940 bus stops across the area;
- Improved accessibility thanks to raised kerbs at bus stops and the new low floor buses;
- Real Time Information linked to satellite technology and to a website and SMS text to show what time the bus is due that puts passengers in control of their travel options.

These improvements on 10 showcase corridors have brought greater reliability and shorter journey times to over 70 different bus services; pedestrians and cyclists have benefited from improved junction layouts, crossing points and over 8km of new bus or priority lanes all helping to reduce carbon emission by 42,771 tonnes over the project lifetime.

The introduction of Quality Partnership Schemes, supported by Voluntary Partnership Agreements, on all ten corridors will lock in the benefits and provide a virtuous circle of investment by all local bus operators and the local authorities.

Adding value to GBBN are the Romney Avenue and Cheswick Bus Links.

As a result of GBBN we expect to see 3.9 million more bus journeys per year.

can create residential and business environments that are not wholly dominated by vehicular travel, quality of life in the West of England would be enhanced and provide an incentive to inward investment.

6.2.6 We will continue to increase the attractiveness of public transport, cycling and walking by:

- Delivering a rapid transit network;
- Working with bus operators to provide and market services more responsive to local demand focused on customer satisfaction, reliable, frequent and comfortable;
- Introducing a smart travelcard;
- Taxis and private hire vehicles playing as wide a role as possible in the public transport system;
- Working with the rail industry to increase capacity and improve services and access to stations;
- Promoting ferry use through wider publicity and greater integration with other public transport services;
- Enhancing facilities for walking and cycling for example through Government funding bids, Rights of Way Improvement Plans and other initiatives.

Figure 6.1

Key Potential Development Locations and Major Transport Programme

West of England Skills and Competitiveness Board

- Creating and promoting a successful business environment.
- Attracting and sustaining business growth and job creation.

1	Bristol including St Philips
2	Bath central area and river corridor
3	Weston-super-Mare
4	Keynsham town centre and Somerdale
5	East Fringe of Bristol Urban Area, Emerson's Green East & Science Park
6	Midsomer Norton and Radstock town centres and employment sites
7	South Bristol including Hengrove Park and Knowle West
8	North Bristol including Lockleaze
9	Avonmouth / Severnside
10	Weston-super-Mare, on previously developed land
11	New Neighbourhoods : Cribbs / Patchway
12	New Neighbourhoods : East of Harry Stoke
13	New Neighbourhoods : North Yate

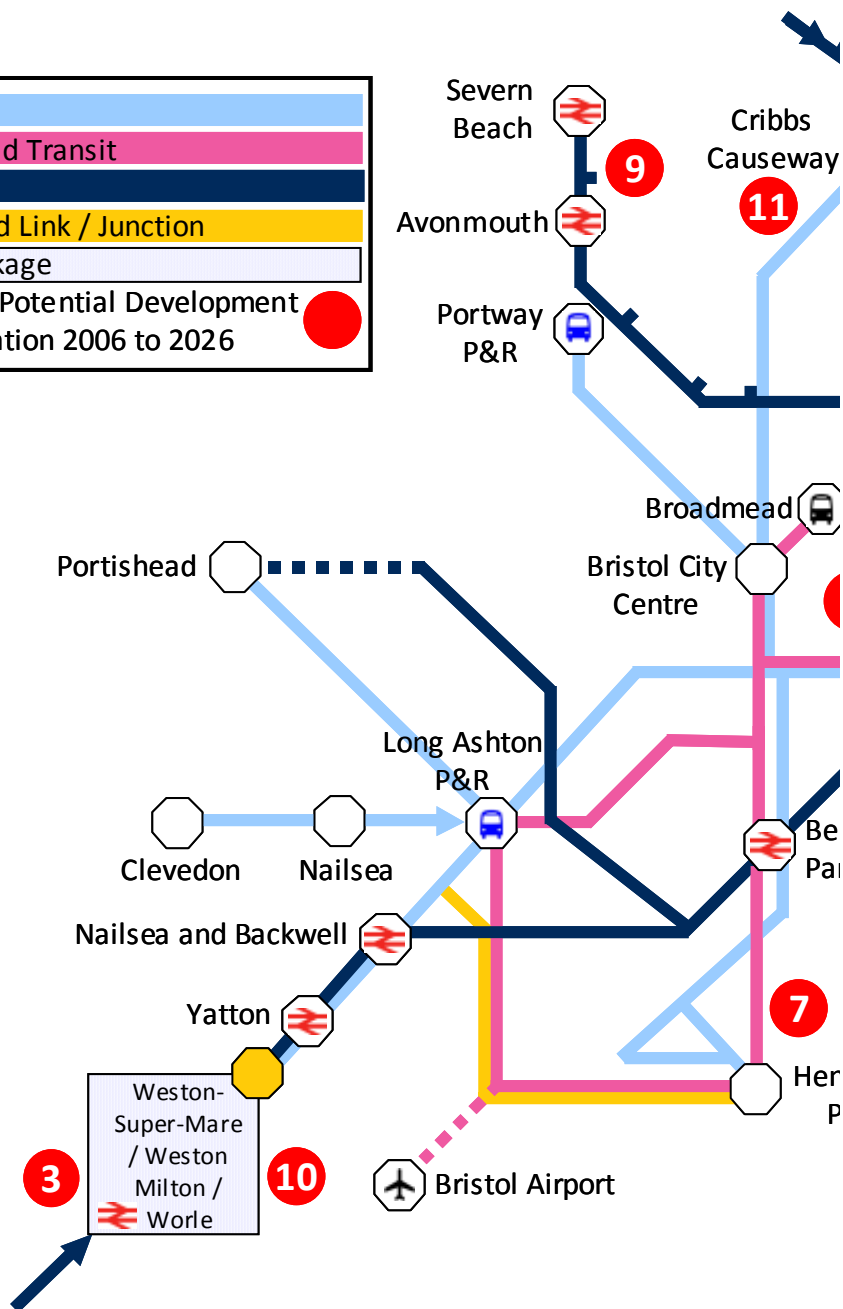
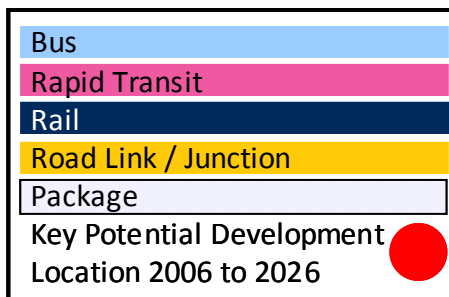
Source: West of England Multi Area Agreement 2009, updated 2010

Peak oil

- Declining oil production, rising costs.
- Potential effect on competitiveness.
- Resilience built into JLTP3 strategy to reduce carbon based dependency.
- Maintain mobility through increased use of sustainable transport.

Key travel facts

- £600m cost of congestion per year by 2016 (Our Future Transport, 2006).
- Each person makes 1,000 trips each year and travels over 6,900 miles (National Travel Survey).
- 637 of these trips (64%) are made by car with an average trip length of 8.5 to 8.7 miles taking 21-22 minutes.
- 57% of 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.
- Bus average trip length was 5.1 miles, taking 33 minutes.



Smarter Choices

- Reduce vehicle trips for business and commuter trips.
- Reduce the adverse impact of vehicle trips.
- Lower costs for business from reduced parking needs and mileage payments and a healthier workforce.

Rail

- Rail use accounts for 1.5% of journeys to work rising to 15% on key corridors such as Bath to Bristol (2001 Census).
- Rail passengers increased by 56% between 2004 and 2009.
- Severn Beach railway line passengers up 41% 2006 to 2009 (Annual Rail Survey).
- Rolling stock, capacity and service frequency issues.
- Re-instate network connection at Portishead providing access for a further 25,000 residents.

Freight

- Congestion causes delays and creates significant problems for the freight and logistics industry.

Tourism

- 4.5m visitors to Bath.
- 6.5m visitors to Weston-super-Mare
- 7.4m visitors to Bristol.
- Transport brings people to the West of England and helps them travel to tourist attractions.
- Vital economic role.

Motorway Network

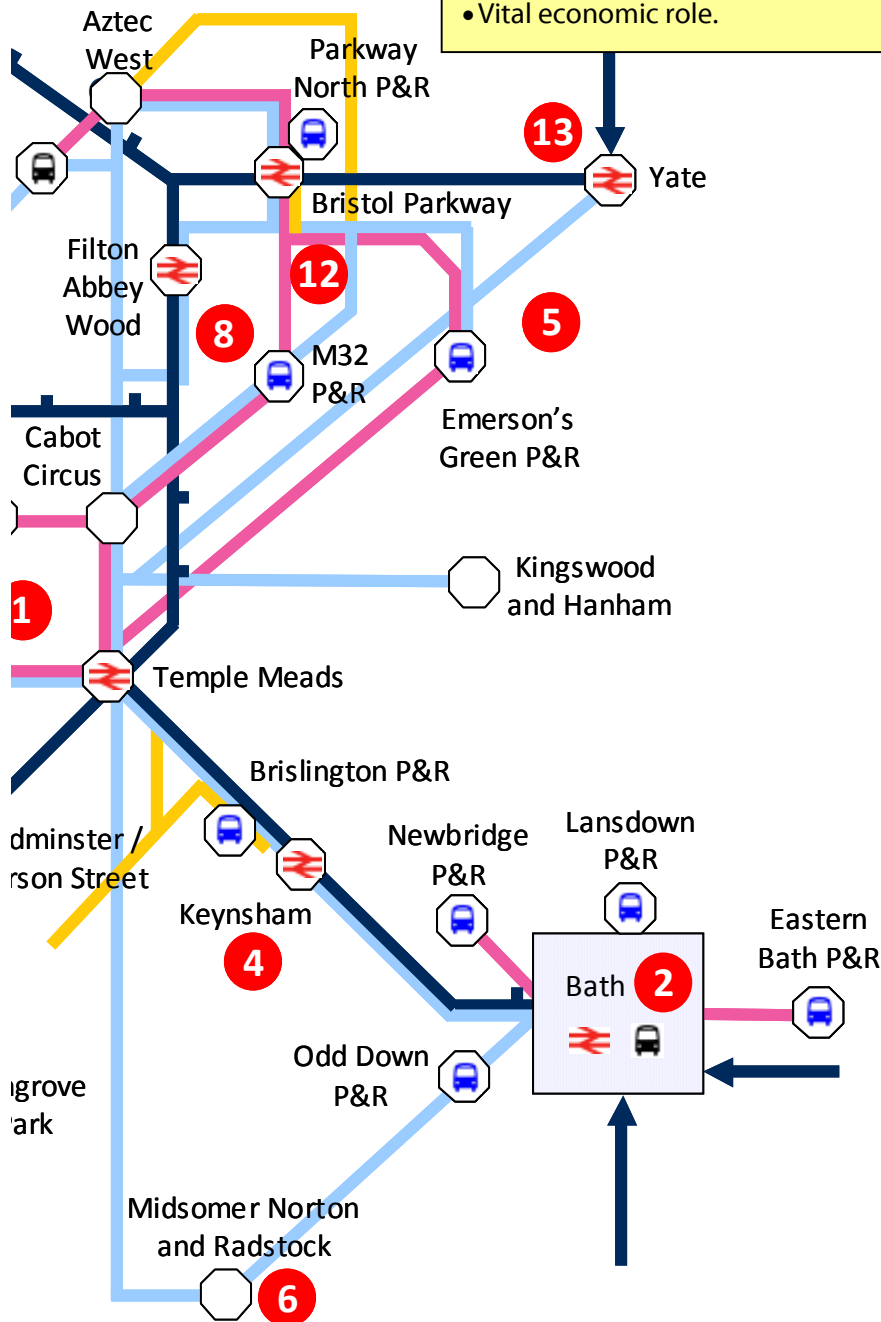
- 50% of M5 peak traffic has both its origin and destination within the West of England (Greater Bristol Strategic Transport Study, 2006).
- Motorway network suffers from rapid breakdown in operation following accidents and incidents.
- Managed Motorways pilot scheme to ease congestion.
- Interactions between motorway and local road network (DaSTS Study, 2010).

Key Economic Facts

- 3.4% forecast growth in GVA 2010-2020 (3.2% UK).
- 19% increase in population by 2026.
- 21% growth in employment to 2030.
- 50,000 undergraduate and 17,000 post graduate places.
- Bristol most competitive large English city outside London (UK Competitiveness Index, 2010).

Cycling and Walking

- Reduce congestion and improve accessibility.
- Health benefits and reduced absenteeism from increased levels of cycling and walking.
- Low cost, high value options (Value for Money report, 2010).
- Chief Medical Officer recommendation (2009) for cycle and walking targets.
- Contribute, with horse riding, to the local economy.



Asset Management

- 400 km of principal or A roads;
- 1,200 km of non-principal or B roads;
- 3,200 km of unclassified roads.
- 2,984 km of public rights of way
- 5% of principal roads need structural maintenance and.
- 12% of non-principal roads are below standard (2008 data).
- Demands will increase with greater traffic volumes, future development and extreme weather conditions.
- Bridges, viaducts, retaining walls, street furniture and lighting all need maintenance.

Travel+ branding

- Four councils working together delivering sustainable transport improvements.
- Real alternatives to the private car and change travel behaviour.
- Help manage congestion.
- Branding used on all promotional literature.

Core Strategies

- Growth in jobs, population and housing.
- Investment in transport infrastructure needed to support and keep pace with development.
- Links to Local Development Frameworks.

Box 6b: Smartcard Ticketing

ITSO Smartcards are currently used for our Diamond Travelcard and South Gloucestershire Council's youth concessionary travel schemes Youth Unltd (see Box 7c). In December 2009, the West of England was awarded £2.2m by the DfT to develop smart and integrated ticketing.

The funding has been used to put in place the key ingredients of a smartcard scheme for all users with cards, card readers on buses and a back office. Bus operator First is committed to upgrading its on-board ticket machines to allow for an integrated ticketing system in the West of England from 2011.

Working jointly with the South West Smartcard Board, the project provides advice and support to operators and authorities from Gloucestershire to Cornwall providing a South West wide ticketing scheme. South West Improvement and Efficiency Partnership funding is being used to pump-prime adoption of the new technology.

In addition several authorities are looking at extending the range of services covered, for example allowing access to library books or leisure facilities.

Box 6c: Cycling City

Greater Bristol's Cycling City project began in mid-2008, helping to spearhead a cycling renaissance across the south west.

By spring 2011 the Cycling City project will have completed over 40 infrastructure schemes, adding 31 miles of new or upgraded traffic-free cycle paths, 21 miles of on-road cycle lanes, 2000 extra bike parking spaces and a new cycle signing network across the city in a little over two years.

The project has already seen some very encouraging results, with cycle traffic on some central bike lanes up by as much as 44 percent.

Projects are also running in schools to set school children on the right track for the future. Bikeability training, Bike It schools, safer routes to schools and after-school activities have all helped double the numbers of school children riding to primary school.

Workplace cycle promotions, carried out by the Cycling City road show team, and match-funded grants for businesses have helped to raise workplace cycling levels by 35 percent, meaning that over 25,000 now regularly cycle to work.

Other projects such as Bike Back, All Abilities cycling, loan bikes, cycle training, Bristol Cycle Festival, Cyclescreen Film Festival and a high-profile advertising and promotion campaign have all contributed towards an overall 17 percent increase in cycling levels since 2007/08.

6.3 Powered Two Wheelers

6.3.1 Powered two wheelers including mopeds, scooters and motorcycles are increasing in use. They can provide an affordable, independent and alternative mode of transport to the car for many trips. They are useful where public transport is limited and walking and cycling are unrealistic, thus increasing mobility and widening access to services, further education and employment. For younger people this can be crucial. Other advantages include the reduced space required for parking, good fuel efficiency for smaller motorcycles and mopeds, lower emissions and running costs compared to cars.

6.3.2 Powered two wheelers tend to have a higher accident record, can cause noise and/or exhaust pollution if legal standards are not met and are also prone to theft. These issues need to be addressed and we will take account of national policy and guidance.

6.4 Rail

6.4.1 Rail passenger numbers have grown by 56% over the last five years whilst infrastructure and services have struggled to meet increasing demand. We are concerned about the quality and quantity of the current rolling stock and we will continue to lobby the Government to take action.

Box 6d: Rail Memorandum of Understanding, July 2010

The Memorandum of Understanding (MoU) between the West of England local authorities, Network Rail, First Great Western, CrossCountry and South West Trains promotes effective co-ordination and co-operation between the four organisations.

Under the MoU it has been agreed that:

- Network Rail, First Great Western, CrossCountry and South West Trains will be key partners in the production of the Joint Local Transport Plan 3 and will provide input, expertise and feedback as required.
- A programme and phasing of Network Rail, First Great Western, CrossCountry, South West Trains and West of England authorities schemes for 2011–2016 is agreed for inclusion in the JLTP3 Delivery Plan.
- First Great Western, CrossCountry and South West Trains to provide timely consultation on timetable and rolling stock changes.
- Network Rail to provide full and timely consultation on investment and planning decisions including the Network Rail Business Plan, Network Rail Discretionary Fund and other smaller schemes.

An Action Plan has been drawn up to reduce overcrowding, increase patronage and capacity through short, medium and long term proposals for new and enhanced services, rolling stock and infrastructure including schemes for Portishead, Greater Bristol Metro and Rapid Transit.

6.4.2 In the period to 2026 we will build on the Great Western Route Utilisation Strategy and the Memorandum of Understanding with the rail industry (see Box 6d) to deliver the rail network in Figure 6.2.

6.4.3 Full electrification of the Great Western Main Line will reduce travel times and improve services between London and the West of England travelling through Bath to Bristol. We will continue to push for electrification to be extended beyond the current (November 2010) end of the scheme at Didcot. It is essential that electrification is implemented ahead of potential longer term ambitions for a High Speed Rail route.

6.5 Freight

6.5.1 The West of England's large population, size and diverse economic activity generate significant amounts of freight. There are also international, national and regional flows of goods through the West of England, reinforced by its position at the intersection of two motorways, two mainline railways, the presence of the Port of Bristol and Bristol Airport. Both are planning to increase their throughput. This will have an effect on the area's transport infrastructure and require integration with JLTP3 proposals.

6.5.2 Figure 6.3 shows the approximate shares of road, rail, sea, air and pipeline in the carriage of freight in the area in 2008. These have been stable for some years with road freight having by far the largest share.

6.5.3 Road freight remains the main option

for most distribution in the West of England and suffers from congestion and delivery problems. The JLTP3 needs to balance the requirement for distributing goods whilst mitigating the adverse impact of vehicles on communities. Priority vehicle lanes in South Gloucestershire for example are available to Heavy Goods Vehicles during peak periods to help keep freight moving.

6.5.4 The first urban freight consolidation scheme in the UK commenced in Bristol in 2004. The scheme has 55 retailers on board removing 4,000 HGV trips from central Bristol every year. The authorities are now progressing with options to extend the scheme to cover both central Bath and Bristol by 2011 to enhance the geographical scope and improve the operational efficiency of the scheme.

6.5.5 There is scope for the transfer of some freight from road to rail or coastal shipping. Capacity enhancements being explored by Network Rail through the Great Western RUS, including the three or four tracking of the Filton Bank, would widen opportunities to increase rail freight. The opening of a new rail freight terminal for bulk wine shipment near Ashton Vale Trading Estate is a recent example of the scope for switching from road to rail.



Figure 6.2: Vision for West of England Rail Network

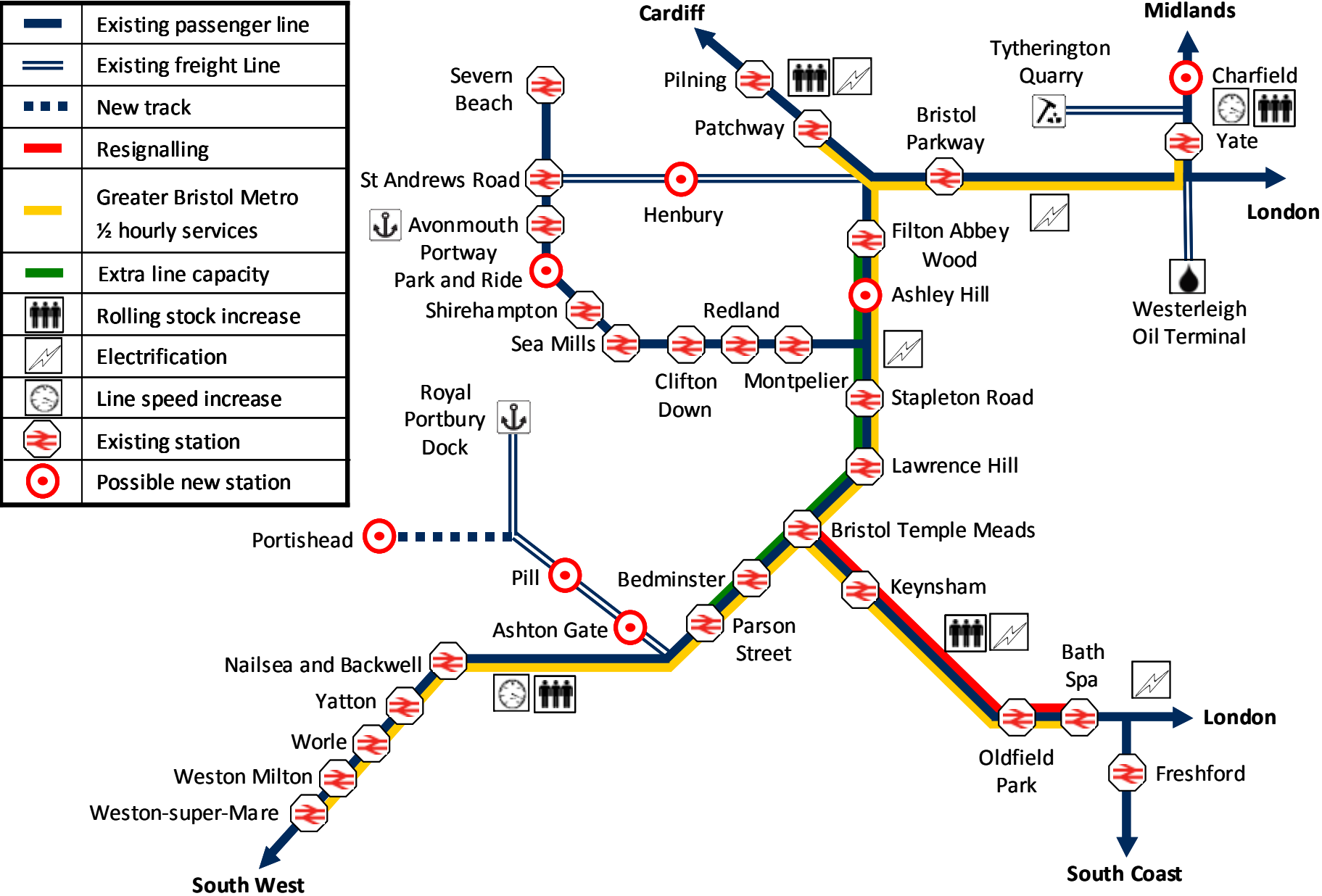
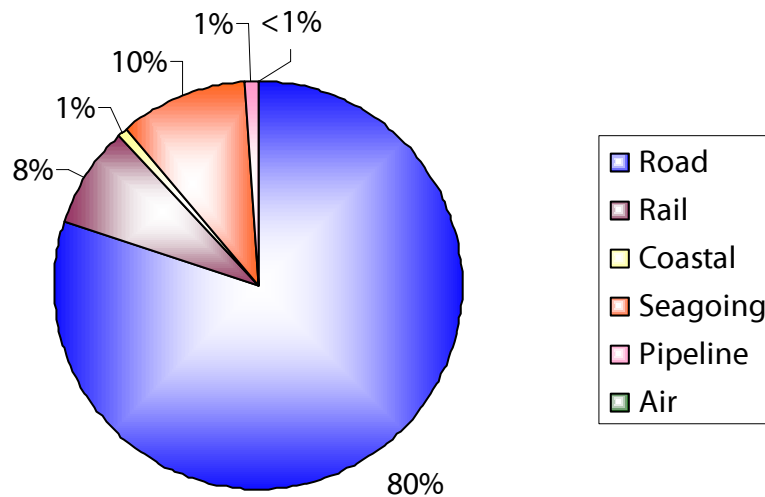


Figure 6.3 Freight Mode Shares : West of England 2008



Proportions are shares of the approx 3,800 million tonne km carried across land and offshore coastal waters

6.6 Parking

6.6.1 The supply and management of parking is closely linked with the demand for car use and this in turn affects traffic levels, especially in peak periods and, ultimately, congestion. It is a key part of our range of demand management measures for tackling congestion and traffic growth in some areas.

6.6.2 Parking controls can be used, where appropriate, as part of an integrated strategy to contribute to:

- Reductions in vehicle trips to central areas during the peak providing congestion, local air quality, health and carbon reduction benefits;
- Improving the financial viability of bus, Park and Ride and rail services;

- Encouraging shorter trips within the urban areas to transfer to walking, cycling and public transport;
- Lock in the benefits of reduced traffic by reallocating road space to people through pedestrianisation and public realm enhancements;
- Improving quality of life in both residential areas as well as the city centres through greater opportunities for active travel, less motorised travel movements and emissions.

6.6.3 Pricing of parking can significantly influence travel demand. Within Bath the local authority has control of the majority of off-street public parking. For Bristol the local authority has lower scope for direct control but through working closely with private operators can seek to influence their approach to charges for different user groups.

6.6.4 Bath and North East Somerset Council has a proven track record in taking forward a combination of residents parking schemes surrounding the central core in tandem with pricing of car parks encouraging long stay parking to use the Park and Ride sites (see Box 6e). We aim to have new and improved Park

and Ride sites and we will work with partners to develop opportunities to open park and share sites.

6.6.5 In Bristol controls would need to be extended sufficiently far from the central area to discourage people from parking further away and walking to their end destination.

Box 6e: Case Study. The role of parking and demand management in creating a canvas for public life in Bath

Bath's status as a World Heritage Site and major tourist destination with over 4 million visitors a year, of which almost 80% are day visitors, puts great strain on the city's historic streets.

To reverse this decline a public realm and movement strategy was adopted in 2010. At its heart, pedestrians, cyclists and public transport are given priority over the car, with the ambition of Bath becoming the UK's most walkable city.

The strategy builds on the successes of demand management measures already introduced in the city including the Northgate Street Bus-gate that severs the north-south route through the city centre for general traffic but maintains access for buses, taxis and other essential vehicles.

With traffic in the important Milsom Street shopping area reduced, public realm enhancements and widened footways in Walcot Street can be implemented providing enhanced walking routes. The introduction of the Bus-gate was followed by major investment in new buses by First giving Bath a modern fleet of low floor vehicles.

On-street parking has been enhanced by physical measures and by bringing in 'pay and display'. Residents are also essential for the city centre's vitality and viability and programme of residents' parking zones was introduced. This scheme covers over 3,000 households and was completed within 18 months following engagement with the local community.

Park and ride services were made more attractive by introducing a fleet of new buses, extending the operating times from 8am – 7.30pm to 6.15am to 8.30pm.

Urban Traffic Management and Control systems have helped improve traffic flow on main routes around the historic core, such as the A36, providing bus priority, pedestrian crossings, and effective monitoring and fault reporting.

The Bath Transportation Package will provide additional Park and Ride spaces and an opportunity for further controls on city centre parking to help regenerate the city and improve the public realm.

6.7 Demand Management

- 6.7.1 As part of the Joint Local Transport Plan (JLTP) 2006 to 2011 we undertook, through the DfT's Transport Innovation Fund (TIF), to investigate possible demand management options. The TIF work enabled us to demonstrate the potential impact of combining tough demand restraint with packages of measures to make it easier to car share, use public transport, walk or cycle.
- 6.7.2 The Transport Act 2000 allows the option for local authorities to introduce charges for both road use and private non-residential parking. Such schemes could have an important contribution to play as part of the strategy in a number of ways:
- Providing a financial incentive for employers to manage the demand for travel of their employees;
 - Providing a revenue stream which the authorities could use to enhance the delivery of the JLTP3 strategy;
 - Encouraging employers to support their staff more to be physically active in order to reduce sickness related absenteeism.
- 6.7.3 In central Bristol, there are substantial amounts of private non-residential parking. Most of this parking is free at the point of use and there are no demand management controls to influence their use. Bristol City Council will explore the potential for workplace parking levies as a means to influence the supply and use of parking.
- 6.7.4 Complementary to parking control and demand management are

mechanisms to change the nature of the road network to discourage through traffic in residential areas. An example of this approach is 20mph limits. Whilst they are aimed at slowing speeds and improving safety they can positively encourage modal shift by creating environments far more pleasant for walking and cycling. At the same time they become less attractive to unnecessary through traffic providing an extra demand management tool. Locking in the benefits by developing low cost measures with local communities will further strengthen the role of 20mph limits.

6.8 Asset management

- 6.8.1 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 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.
- 6.8.2 Making our road and rail networks resistant and adaptable to adverse weather, accidents and impact of climate change is dealt with in Chapter 5.

6.9 Strategy

- 6.9.1 Our strategy aims to provide the infrastructure to deliver and support the expected growth in jobs and houses and the sustainable transport to enable people to get to their jobs,

houses and services through the following:

Rapid Transit

6.9.2 We believe the Rapid Transit network is essential for sustainable economic growth, by providing a deliverable, cost effective, reliable and attractive alternative to the car. Without it congestion will increase and investment could go elsewhere. We will:

- Introduce a series of Rapid Transit services (see Figure 6.4) operating on routes with segregation from general traffic and offering a high quality, frequent and reliable form of public transport;
- Complement and supplement bus and rail services, offering much wider public transport journey opportunities;

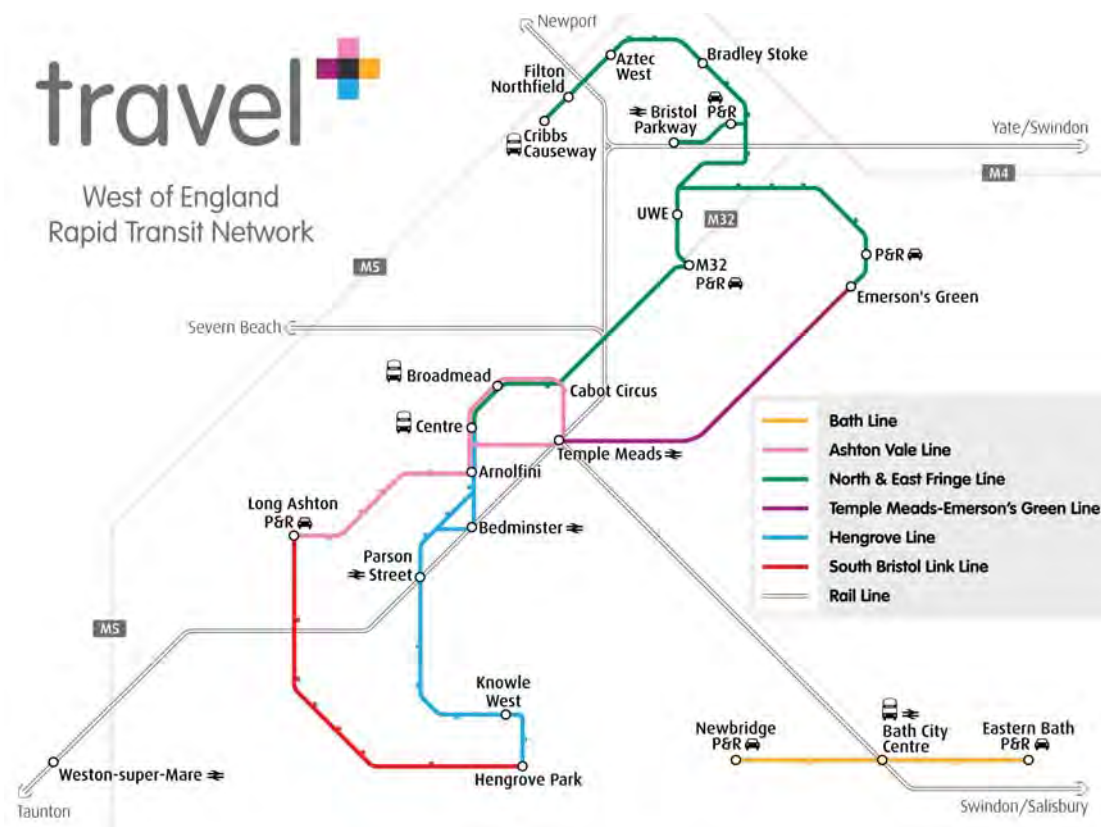
- Allow for future upgrading of the network as new technology and funding allows.

Bus

6.9.3 Whilst Rapid Transit offers an exciting future, there will remain a need for reliable and attractive bus and rail services, to reach those areas off the Rapid Transit Network, ensure sustainable economic growth and minimise car trip generation. We will:

- Complete the £70m Greater Bristol Bus Network of enhanced passenger facilities, bus priorities and services;
- Implement the Bath Transportation Package providing bus priorities, better shelters and enhanced information for ten routes in the city;

Figure 6.4 West of England Rapid Transit Network



- Build on and complement GBBN investment with further infrastructure and enhanced routes in Bristol and adjacent urban areas of South Gloucestershire;
- Consider a lighter touch approach for secondary routes, where a lower level of investment may result in tangible benefits for passengers, based on expected demand and setting minimum frequencies;
- Establish Quality Partnership Schemes for greater influence over fares, frequencies, vehicle and infrastructure standards on specific corridors;
- Keep the national concessionary travel scheme under review and investigate the scope for extending it to cover other age groups;
- Introduce a multi-operator Smart travelcard for bus travel, building on the experience of the Freedom Travelpass and BathRider;
- Keep the network under review to ensure it serves business and communities;
- Assess the scope for greater use of mobile phone technology (using the Traveline platform);
- Increase the provision of park and ride services to encourage more drivers to switch to public transport thereby reducing car traffic on main routes.

Rail

6.9.4 Our strategy for rail recognises that major decisions on infrastructure and services are taken at national level. We will:

- Use the Memorandum of Understanding with the rail industry (see Box 6d) to improve rail capacity, performance and journey times and introduce new and enhanced services and rolling stock (see Figure 6.2);
- Aim to create a Greater Bristol Metro of half hourly cross-Bristol train services;
- Reopen the Portishead branch for passenger traffic;
- Widen ticketing opportunities and work with the train operators to extend the smartcard to include rail travel;
- Seek enhancement of stations including extending platforms at Worle;
- Work with Network Rail, First Great Western and other key stakeholders to develop a plan for improved interchange at Bristol Temple Meads station;
- Work closely with the Severnside and Heart of Wessex Community Rail Partnerships and other partners (see Box 9d);
- Work with the Great Western Partnership to secure electrification and a 'state of the art' High Speed Rail route to the South West and South Wales.

6.9.5 We support proposals set out in the Great Western Route Utilisation Strategy (2010) covering the period 2014 to 2019 for:





- Bristol Temple Meads to Parson Street four tracking;
- Train lengthening Manchester and Gloucester to Bristol Temple Meads and Cardiff to Portsmouth and Taunton;
- Increased linespeed Bristol Temple Meads to Bridgwater;
- Filton Bank three/four tracking;
- Bristol Temple Meads to Yate half hourly extension;
- Bristol Temple Meads to Bath (with possible extension to Clifton Down/Avonmouth) additional services;
- Additional rolling stock for services between Bristol Temple Meads and Gloucester, Portsmouth, Taunton and Cardiff;
- Electrification of the Great Western Main Line and opportunities for electric services on the Greater Bristol Metro;
- Bath Spa capacity upgrade (committed scheme 2009 to 2014);
- Westerleigh Junction to Barnt Green linespeed increase (committed scheme 2009 to 2014).

Walking and cycling

6.9.6 Our broad aims are to:

- Maximise the role of cycling and walking as alternatives to the use of private cars by raising their status and

promoting them as low cost, low carbon, economic, healthy and energy efficient means of transport;

- Improve walking and cycling networks with links within developments and to surrounding areas.
- Improve the cycling and walking environment by reducing danger from speed and volume of traffic;
- Develop and maintain safe, convenient, efficient and attractive transport infrastructure conducive to cycling and walking;
- Recognise the needs of people who have personal mobility problems;
- Use the Rights of Way Improvement Plans to develop a coherent network of multi user routes in and between communities including proposals for the new National Coastal Path.

Smarter Choices

6.9.7 The Smarter Choices strategy to encourage the use of sustainable modes of transport includes supporting the following key elements:

- Continue to work with businesses, the health sector, schools and further education to help them reduce their vehicle trip generations, for both business and commuter trips
- Personalised Travel Planning;
- Marketing and events;
- Workplace Travel Plans;
- Residential Travel Plans;
- Travel Information;
- School Travel Plans and sustainable travel strategies required by the Education and Inspections Act 2006;
- Car sharing;
- Car clubs;
- Investigate how to better target smarter choices to assist with decision

points in people's life for example changing school, preparing for work, buying a house or starting a new job.

Powered Two Wheelers

6.9.8 The powered two wheelers strategy includes:

- Travel plans to incorporate measures to encourage their use;
- Ensure development proposals include appropriate parking provision;
- Working with the police to improve the provision of safe and secure parking facilities;
- Establish an area-wide programme of road safety education, training and publicity;
- Consider extending usage along bus lanes on proposed showcase route on an individual scheme basis.

Taxi and Private Hire vehicles

6.9.9 Our strategy is for taxis and private hire vehicles to complement and reinforce other public transport services focusing on three main areas:

- Infrastructure and information improvements;
- Licensing controls and working with operators;
- Increasing role as part of integrated transport strategy.

Water Transport

6.9.10 Our strategy for water transport strategy focuses on:

- Enhancing waterside access as key parts of the regeneration of Bristol city centre and Bath City Riverside in Bath;

- Seeking ways and means of increasing patronage of Bristol Harbour ferries and integrating them further into the public transport system;
- Exploring the potential for other ferries or innovative forms of water transport.

Demand Management

6.9.11 The parking strategy has the following key elements:

Parking Controls

- Parking controls including charges will be structured to support short stay retail, leisure and business trips to the central areas;
- All day parking will be controlled in a way to discourage users who could transfer to lower carbon travel choices.

Restricting Access to On-Street Parking

- Residential parking controls will be extended to a greater geographical area surrounding central Bristol and will be considered for other areas of high parking demand in the West of England.



Workplace Parking Levies

6.9.12 For the Bristol City Council area initially the authority will:

- Undertake development work to allow the full costs and benefits of a workplace parking levy scheme to be understood.
- Develop a robust business case and secure political approval before progressing the implementation of any scheme.

Future measures

- Support Government proposals to establish a system of lorry road user charging.
- Explore and develop innovative demand management solutions to achieve transport objectives.

Creating Streets for People - 20mph limits

- 20mph limits will be rolled out to cover all of the Bristol City Council administrative area;
- Enhance the street scene to increase pedestrian and cycling activity;
- Work in partnership with other agencies to enhance the environment for local communities.

Highway Improvement, Management and Maintenance

6.9.13 We recognise the continuing importance of managing, maintaining and where necessary, extending our highway networks. To this end, our major transport scheme programme (see Chapter 11) includes new highway schemes that are targeted at economic growth, namely:



- Weston Package and M5 Junction 21 Bypass to facilitate economic growth at Weston;
- Stoke Gifford Link (in Hengrove-North Fringe Package) to support growth in north Bristol;
- South Bristol Link to enable regeneration in South Bristol.

6.9.14 To manage the highway network effectively we will:

- Oversee the safe, effective and efficient use of the highway network in line with our duties under the Traffic Management Act 2004 and consider the needs of all road users, including pedestrians, cyclists and powered two wheeler riders;
- Review our network management plans to ensure they are kept up-to-date and complement each other;
- Review hierarchy of roads to direct different kinds of traffic onto the most

- appropriate routes, including Heavy Goods Vehicles;
- Continue to use the transport user priorities (see section 7.5.2) adopted in JLTP 2006 to 2011 in considering alterations to the highway network;
- Adapt the highway network through engineering schemes and measures to ease congestion, increase safety, improve the quality of life for local people and encourage public transport use, walking and cycling;
- Maximise the operational effectiveness of traffic signals and extend the use of Urban Traffic Control systems where appropriate;
- Develop an Intelligent Transport System (ITS) for the West of England to build on the work of the Bristol Traffic Control Centre, improve journey times and reliability, reduce delays and emissions and tackle congestion hotspots;
- Maintain, manage and ensure best use of transport assets through the implementation of the Joint Transport Asset Management Plan (JTAMP);
- Ensure our road network is resistant and adaptable to the impact of climate change.

Freight

6.9.15 Our strategy towards freight will be to:

- Work with Network Rail and the freight industry to promote the movement of freight by rail in preference to road;
- Discuss with the Port of Bristol and Bristol Airport ways and means of accommodating changes in the pattern of freight movements generated by their activities;
- Enhance the highway network information available to the travelling

public, business, the freight industry and service providers;

- Identify with road freight interests, opportunities for enhanced lorry parking provision;
- Extend the use of freight consolidation through continued development of the scheme to cover the two main urban centres of Bath and Bristol;
- Seek improvements to delivery arrangements in city and town centres and opportunities for giving HGVs priority over the private car along certain roads.

Peak Oil

6.9.16 Together with the Government's desire to decarbonise the economy and support the creation of new green jobs and technologies the transport strategy set out above will need to build resilience against the potential effects of peak oil through:

- Reducing the number and length of journeys to access goods, employment and services;
- Maximising the use of sustainable, human powered (i.e. walking and cycling) modes of transport;
- Maximising the use of public transport to increase efficiency per unit of fuel.



Travel+

- 6.9.17 We will use our Travel+ branding to promote transport projects in support of economic growth.

Supplementary Documents

- 6.9.18 More detail on our strategy can be found in the Cycling, Freight, Network

Management, Parking, Public Transport, Smarter Choices and Walking supplementary documents.

6.10 Future ideas to 2026

- 6.10.1 In supporting economic growth throughout the life of the JLTP3 we will keep options and ideas open. Some of these are outlined in Box 6f.

Box 6f: Future Plan Ideas

- Continued development and expansion of Rapid Transit Network;
- Increased capacity on the rail network where linked to employment and housing growth areas;
- Electrification of local rail services;
- Tram trains and light rail, subject to the outcome of national trials and DfT review of costs, to provide higher frequency services with options for on-street running;
- Cycling major transport scheme bid to build on the success of Cycling City;
- Showcase walking routes – super commuter routes into town and city centres;
- Targeted smarter choices aimed at transitions in life such as planning for young people to encourage alternatives to car ownership.
- New ways to manage street works including possible permit schemes.

Find out more

-  Cycling, Freight, Network Management, Parking, Public Transport, Road Safety, Smarter Choices and Walking draft JLTP3 Supplementary Documents, 2010.
-  Building a positive future for Bristol after Peak Oil, 2009
-  Chief Medical Officer Annual Report, 2009
-  Core Strategies of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  Great Western Route Utilisation Strategy, 2010
-  Greater Bristol Strategic Transport Study, 2006
-  Interactions between motorway and local road network DaSTS Study, 2010
-  Joint Rights of Way Improvement Plan 2006 – 2011
-  Joint Transport Asset Management Plan
-  North Somerset Rights of Way Improvement Plan 2006 - 2011
-  Our Future Transport, 2008
-  Rail Action Plan, 2010
-  South West Rail Prospectus, 2010
-  Value for Money: An Economic Assessment of Investment in Walking and Cycling
-  West of England Local Enterprise Partnership proposal, 2010

Strategy Summary

- Improve accessibility for residents to health services, employment, digital infrastructure and other local services;
- Assist neighbourhood renewal and regeneration of deprived areas;
- Improve access to services for rural residents;
- Improve accessibility for people with mobility difficulties.

Indicators and targets

Indicators and targets will be determined following review of resources and funding.

7.1 Background and evidence

7.1.1 We need to tackle people's problems of getting around. Making it easier to get to work, to college, to the local hospital or health centre. Walking and cycling for example are low cost options for many groups, particularly young people. People also choose to live without a car. Not meeting people's needs can significantly affect their quality of life. Figure 7.1 shows the challenges we face.

7.1.2 The JLTP3 links into a range of plans and partnerships across the West of England area as Figure 7.2 shows.

7.1.3 The Equalities Impact Assessment (see Chapter 4) ensures the needs of different groups are considered including disabled people. There is less need for a specific disability strategy as they are covered as a matter of course in the JLTP3. This will be kept under review. Ultimately improving access for disabled people means better transport for all of us.

7.1.4 The following sections focus on key issues and areas of work backed up by case studies to demonstrate the good work of the JLTP 2006 to 2011 and how we will build upon it.



Where people live	Contribution to Goal	Impact
Major Urban Areas	Significant	Supporting regeneration, reducing deprivation, better access to major health facilities and employment
Towns	Significant	Better access to local health facilities, regeneration and employment
Rural	Significant	Better access to health, jobs and services and Digital Infrastructure

Figure 7.1 : Accessibility



Rural

- 160,000 people live in the rural areas of the West of England.
- 72% of journeys to work in rural areas made by car.
- Access to facilities can be difficult for the young, elderly, disabled and those without access to a car.
- Often poor or no bus provision and lack of information.
- Pockets of rural deprivation exist.



Regeneration

- Areas of multiple deprivation to east of Bristol city centre at Lawrence Hill, south Bristol at Filwood and Whitchurch Park, outlying estates at Southmead and Weston-super-Mare town centre.
- Key development locations for regeneration shown in Figure 6.1.
- Supported by major transport scheme programme.



Employment

- Improving access to employment (see section 7.3).



Key Fact

- 1 in 5 households in the West of England have no access to a car and 50% of households have access to only one car.



Ethnic Minorities

- 8% of Bristol's population is from ethnic minorities, 5% for West of England as a whole (2001 Census).
- Communication and provision of information on public transport is key to improving access to jobs and services.
- Concerns about personal security on public transport.
- Cultural barriers to cycling and public transport use.

Health

- Improving access to health care facilities (see section 7.2).

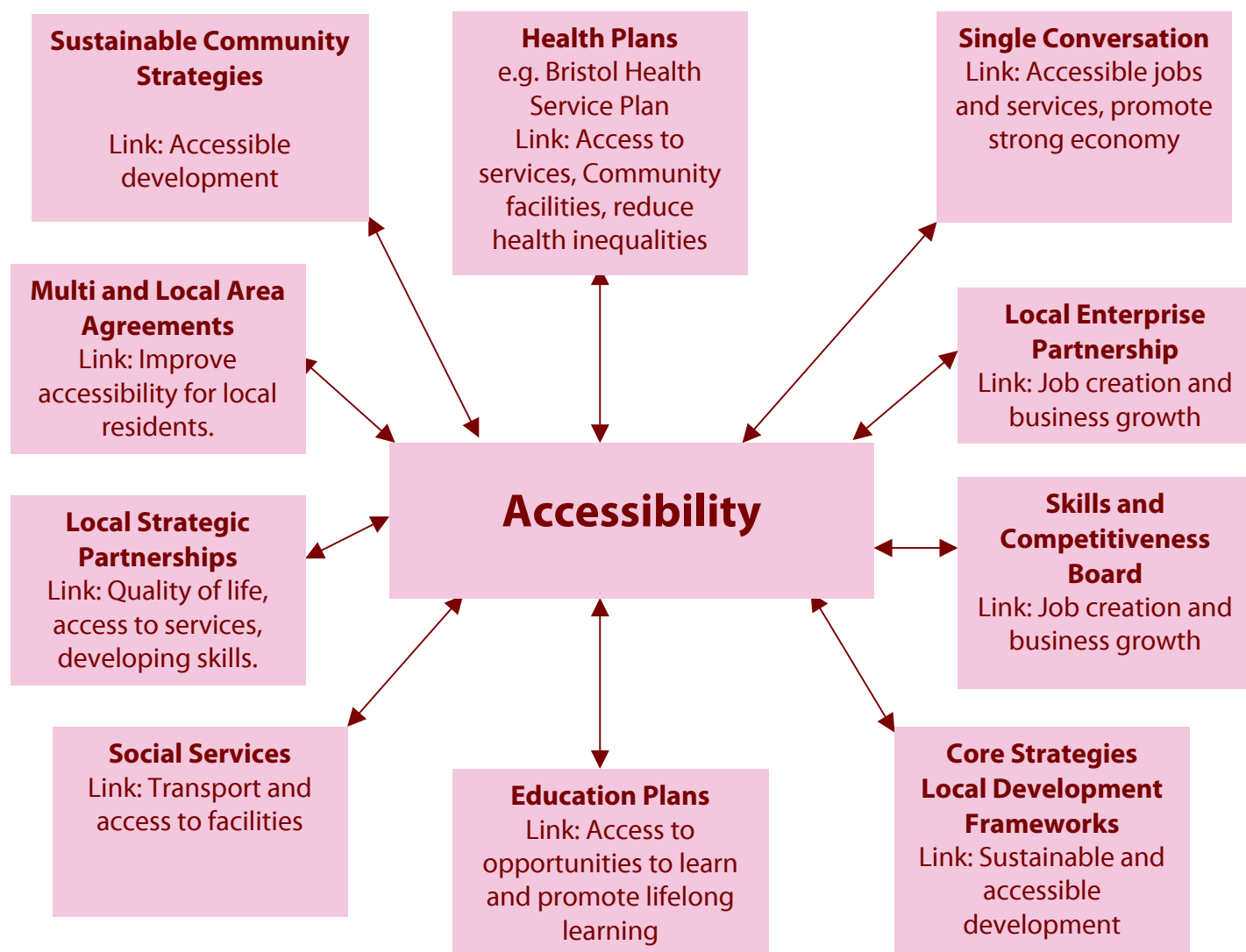


Children and Young People

- 67% of children aged between 8 and 10 and 24% of 11 to 15 year olds never go to the park or shops alone.
- Less activity means being less healthy, linked to concerns about childhood obesity.
- Many children spend increasing amounts of inactive time escorted by car to organised activities and school.
- Councils' Play Strategies promote access to play areas.
- Young people need access to further education, work and leisure facilities.



Figure 7.2: How the JLTP3 can make a difference



7.2 Health

7.2.1 Access to health facilities in Bristol, Bath and Weston-super-Mare varies as Table 7.1 and Figure 7.3 reveal. Overall 57.3% of households can access health facilities by bus within 30 minutes. There are some areas, mainly rural, where figures are lower.

7.2.2 Figure 7.3 shows the link between areas of deprivation and transport provision. This is especially so in South Bristol although the new hospital in this area will help improve accessibility to health care. In addition hospitals which serve a more local population such as Paulton Memorial Hospital significantly increase access to health care.

Table 7.1: Access to Health Care in the West of England (2009)

	All Households	Households without access to a car
Journey time by public transport	30 minutes	30 minutes
Bath and North East Somerset	42.6%	54.5%
Bristol	74.5%	74.6%
North Somerset	41.6%	54.6%
South Gloucestershire	52.2%	61.5%
West of England Area	57.3%	66%

Note: Time thresholds used are those for the National Accessibility Indicator for Health



7.2.3 Improving access to healthcare is important for households without or with limited access to a car. More locally based health facilities can help this.

7.2.4 At the same time we want to encourage those with cars to use them less. This approach is being promoted with the redevelopment of Southmead Hospital (see Box 7a).

7.3 Employment

7.3.1 Access to the main employment centres in the West of England area (defined as those with a minimum of 5,000 jobs) has been mapped in Figure 7.4. The 14

7.3.2 major employment centres account for 30% of total employment within the West of England area.

7.3.3 Across the West of England area 72.7% of the workforce lives within 40 minutes by public transport of a major employment site (see Table 7.2). Again this conceals variations, with South Gloucestershire at 52.8%. Whilst 30.9% of the West of England workforce is within 20 minutes, the figure is only 21.1% for North Somerset. There is a strong link between poor access and deprivation. Away from the main bus routes accessibility is poor in rural areas.



Figure 7.3: Access to healthcare in Bristol, Bath and Weston-super-Mare

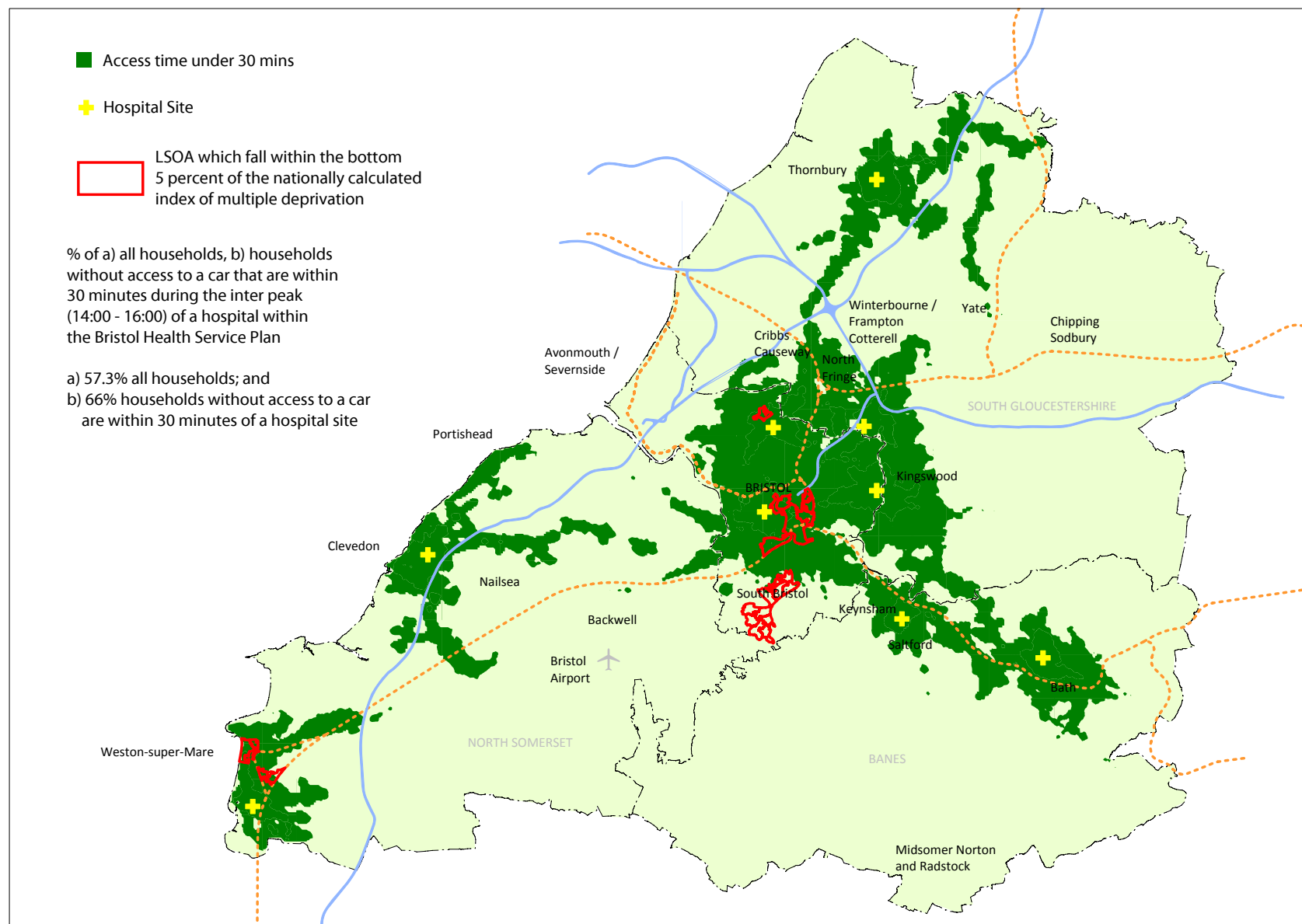
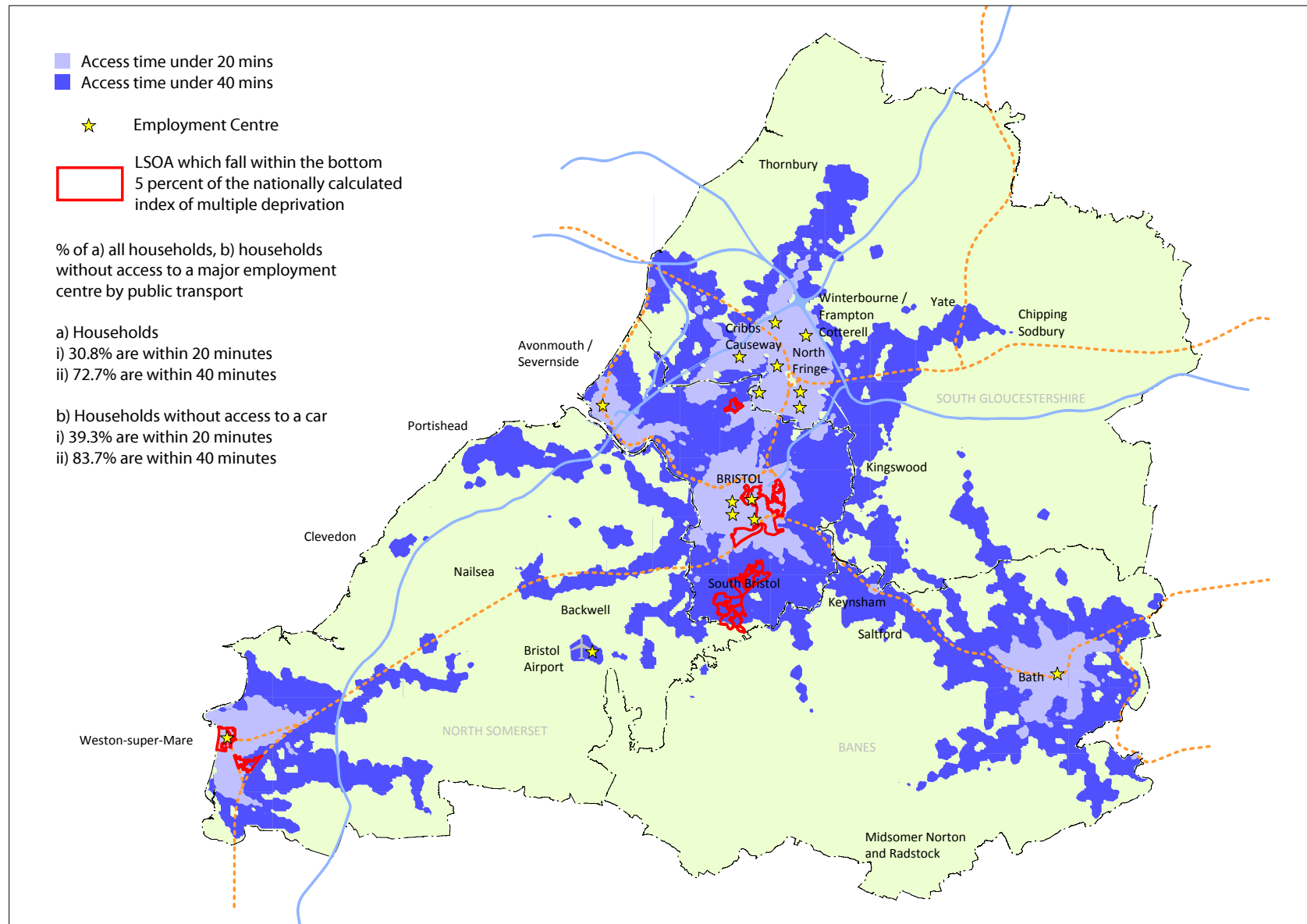


Figure 7.4: Access to and main employment centres in the West of England



Box 7a: Southmead Accessibility Study

The redevelopment of Southmead Hospital and of Frenchay hospital as a community facility will change the travel requirements of patients and visitors in the North Bristol NHS Trust area. Staff numbers at Southmead will increase from 4,500 to 6,500.

A section 106 agreement made as part of the Southmead redevelopment proposals provides £0.5m per year for 3 years (£1.5m in total) to improve public transport to the hospital. A study undertaken by the North Bristol NHS Trust, West of England Partnership, South Gloucestershire Council and Bristol City Council is identifying 'gaps' in public transport provision following the redevelopment and possible measures to fill them.

Construction Timetable

Construction begins	Spring 2010
Buildings ready for occupation	2014
Outstanding works including road and landscaping	2015

Potential options emerging through the study work include:

- Extend existing bus services through the Southmead Hospital site.
- New orbital bus routes with a regular frequency throughout the day - one serving Frenchay, Bristol Parkway and University of the West of England (UWE), and a second larger loop serving Yate and Frampton Cotterell.
- And/or additional bus services to areas disadvantaged by the redevelopment such as Hanham, Keynsham (extend 584 and 587 services) and potentially Yate.
- Marketing of Bristol Parkway, UWE, Bristol city centre, and Cribbs Causeway as an interchange for Southmead Hospital,
- Co-ordination between the booking of hospital appointments and community transport.

Table 7.2: Access to the 14 Major Employment Sites in the West of England (2009)

Journey time by public transport	20 minutes	40 minutes
Bath and North East Somerset	31.6%	63.1%
Bristol	40.8%	97.7%
North Somerset	21.1%	55.3%
South Gloucestershire	21.2%	52.8%
West of England Area	30.9%	72.7%

7.3.4 Lack of awareness of public transport reduces the areas where people without access to a car will consider working. Young people tend to have more limited spatial experiences and horizons and are less likely to consider job opportunities in more distant and unfamiliar locations. As an example Box 7b shows how Bristol Airport's Surface Access Strategy is improving

accessibility for both staff and passengers.

7.4 Building on success – the case studies

7.4.1 Box 7c provides case studies demonstrating our commitment to improving accessibility. We will build on this approach for the JLTP3.

Box 7b Bristol Airport Surface Access Strategy

Bristol Airport's Surface Access Strategy makes it easier to get to the airport by public transport and other non-car modes. The Strategy includes an action plan and targets. It was updated in the Airport's November 2006 Master Plan.

Progress towards objectives and targets includes:

- 523,826 passengers on the Bristol Flyer coach service between the Airport and Bristol City Centre in 2009/10;
- 8.14% of air passengers used the Flyer in 2009/10 up from 7.5% in 2008/09 and against a 4.2% decline in all air passengers;
- 60,000 of Flyer passengers were staff (5-6% of all staff)
- Staff car sharing increased by 33% since 2006;
- Use of the Flyer by staff increased by 140% since 2006;
- Staff travel plan co-ordinator appointed;
- New cycle to work scheme launched;
- New Airport to Glastonbury Festival service in 2009;
- 5.5% of all air passengers came by taxi;
- New fleet of low floor, WiFi equipped buses.

Future plans include:

- New ten minute timetable;
- Improve public transport services to Weston-super-Mare and Bath;
- Target to increase the modal share of air passengers travelling to and from the airport by public transport to 15%;
- Concessionary fare scheme on Bristol Flyer for local residents;
- Consolidation centre for airport deliveries;
- Continue to support the West of England Partnership with the development of the major transport schemes including integration with Ashton Vale to Temple Meads Rapid Transit and South Bristol Link.



Box 7c: Accessibility Case Studies

Youth Concessionary Travel

Youth Unltd is a concessionary travel scheme for young people in South Gloucestershire. It was drawn up with members of the UK Youth Parliament, Youth Board, workshops with young people with learning difficulties, questionnaires to all local secondary schools and youth centres, young people's website, carnivals and other summer-based activities.



The scheme allows all 14-18 year olds in full time education to pay only half of the adult fare on local bus services during evenings, weekends and school holidays; making transport more affordable at the times they are able to use it.

Diamond Travelcard

The Diamond Travelcard offers free bus travel anywhere in England to people of pensionable age as well as those with an eligible disability. The national scheme has been enhanced locally to provide additional support for those with mobility problems by providing a pass giving free travel to a companion. Other local additions include travel from 9am (rather than 9.30am) and travel on the Bristol Airport Flyer.

South Gloucestershire Travel Training and Buddy Scheme

Starting in March 2008 the scheme provides the opportunity for adults with learning difficulties to become travel buddies and support similar adults to travel safely on their own. Buddies use their skills, knowledge and support and repeat specific routes until the person they are supporting feels that they can do the journey on their own.

To date 17 people have become independent with travel on 20 routes and 1 person has ongoing buddying to travel to college.

The scheme has worked with local bus operators offering driver training as well as a DVD to raise awareness of learning difficulties and how best to handle situations that may arise when travelling on public transport.

Safety is paramount to the scheme. With this in mind 32 Safe Havens have been developed, places where adults with learning difficulties can go if anything goes wrong with their journey.

All police stations are designated Safe Havens as well as Tesco stores, Council One Stop Shops and Leisure Centres with new locations being added regularly.

Safe Travel Cards

Working with the Community Stroke Service North Somerset Council has produced a series of cards to help people have more confidence when taking the bus. This is of great use for those who are hard of hearing, unsteady on their feet or have difficulty communicating. The cards allow easy communication with bus drivers and can be displayed next to a Diamond Travelcard. Currently given to stroke survivors it is planned to make them available to all Travelcard users and downloadable from the North Somerset Council website.

Mobility

We are improving access by public transport, cycling and walking through raised kerbs (70% of bus stops in North Somerset will have them by 2012), accessible low floor buses, audio “next stop” announcements on the Portway Park and Ride and demand responsive transport. Access for All funding from the DfT has improved access at local railway stations. Future schemes include the ramp at Keynsham station.

Ethnic Minorities

Minority ethnic and faith communities are concerned about personal security, whether on public transport or at bus stops or approaching stops and stations. Racist graffiti contributes to a sense of threat. Measures implemented to improve general security, such as the Taxi and Bus Marshal schemes in Bristol and Bath, and good design will help address these concerns. The Volunteer Walk Leader training to speakers of other languages in their own language is helping to develop walking within ethnic minority communities.

7.5 Strategy

7.5.1 To promote accessibility we will :

Access to Health and Employment

Continue implementation of the accessibility Action Plans from the JLTP 2006 to 2011 for:

- Bristol Health Service Plan;
- Royal United Hospital Fare Car taxi services;
- Public Transport Information;
- Learning difficulties;
- Major Employment Sites;
- Bristol Airport.

Rural Transport

- Work with partners to safeguard and promote local services such as health and education;
- Encourage public transport, demand responsive and community transport, cycling and walking as sustainable and healthy alternatives to the car;
- Improve access to the countryside;
- Use the Development Control process to improve access;
- Further develop the National Cycle Network and other walking, riding and cycling routes;



- Maintain and develop the Public Rights of Way network including signing and publicity through the Rights of Way Improvement Plans;
- Encourage travel plans for visitor attractions;
- Add real time bus information to rural bus routes, including new technologies such as text services to find out when the next bus is due;
- Work with employers/ GPs/ schools to increase the number of employees and visitors not using the car.

Community Transport

The aim is to maintain, diversify, expand and integrate community transport in the West of England by:

- Linking with other forms of public transport;
- Optimising community transport operations;
- Encouraging social enterprises;
- Helping with marketing, publicity and information.

Regeneration

Improve access to employment, support economic competitiveness and the regeneration of disadvantaged communities through:

- Facilitating the regeneration sites in Figure 6.1 and the supporting programme of major transport schemes;
- Encouraging public transport, cycling, walking and smarter choices to promote sustainable and healthy access.

Transport user priorities

7.5.2 Transport user priorities will help influence planning applications and scheme design. The priority list is not binding and needs to take into account local circumstances. The needs of disabled people are incorporated throughout.

- Pedestrians.** Increase walking through developing, promoting and maintaining safe, secure, convenient, efficient and attractive infrastructure.
- Cyclists.** Increase cycling through providing high quality route networks and infrastructure improvements, including cycle parking, wherever possible.
- Public transport users.** Recognising passenger needs with measures such as shelters, seats, real time information, interchanges and new



services included where considered beneficial and practicable.

- d) Powered two wheelers. Accommodating the needs of motorcycles and scooters in terms of roadscape, parking and safety.
- e) Commercial and business vehicles. Maintain appropriate levels of access to ensure the retail and commercial vitality of city and town centres. Minimise negative impacts by providing facilities such as the consolidation centre for Bath and Bristol and HGV layover areas.
- f) Private car. While this form of transport is the last on the priority list, it is recognised that there must be adequate access, particularly for residents and car borne commuters.

Digital Infrastructure

7.5.3 The four councils will help build on existing networks and partnerships with the Government, industry and academia to:

- Roll out Next Generation (super fast) Broadband and wireless connectivity;
- Improve speed of broadband connectivity in rural areas;
- Create a Digital Economy Hub linking Bristol, Manchester and other city regions;
- Focus on digital skills, inclusion and employment and implement a West of England Digital Action Plan;
- Use information communication technology to make mobility more sustainable and reduce carbon emissions.

Transport Needs of Women

- Recognise the needs of women in planning transport infrastructure and services.

Children and Young People

- Improve access to services and facilities for children and young people, working with partners and co-ordinating with other council strategies such as those for play, positive activities, child health and sustainable travel to schools.



Mobility

- Incorporate the needs of people with mobility problems throughout the JLTP3.

Older People

- Take the needs of older people into account in particular in relation to restricted mobility and concerns about crime and the fear of crime.

Learning Difficulties

- Continue to work with groups and operators to improve access to and use of public transport by people with learning difficulties.

Ethnic Minorities

- Work with partners to help people from ethnic minorities to gain better access to information on transport services and initiatives, achieve improved customer

care and break down cultural or other barriers that restrict travel opportunities.

7.6 Future ideas to 2026

- 7.6.1 Our Strategy is by no means a final one. As other accessibility issues and problems emerge we will review and develop the Strategy. Some possible ideas for the future are in Box 7d.

Box 7d: Future Plan Ideas

- Improve access to cultural and recreational facilities and the countryside;
- Investigate alternative ways to provide village facilities, community/ social car schemes, 'fare car' taxi services, car clubs, demand responsive and flexible bus services;
- Independent travel for young people;
- Expand car clubs to smaller towns;
- Investigate combining the planning and funding of public transport, Social Services, Education and Health transport services;
- Improve access to healthy food, home and mobile deliveries and supporting local shops;
- Orbital public transport routes linking growth, regeneration and existing employment and housing areas;
- Use hybrid mini/midi buses for commuter services in the peak and as demand responsive transport in the off peak.

Find out more

-  Cycling, Public Transport, Rural Transport and Walking draft JLTP3 Supplementary Documents, 2010
-  Joint Local Transport Plan 2006 to 2011
-  'Joint Older People's Strategy', for Bath and North East Somerset, 2006
-  'Aiming High for Young People' (Department for Children, Schools and Families), 2007
-  'Providing Transport in Partnership, A guide to health agencies and local authorities' (Department for Transport/Department of Health), February 2010
-  Department for Transport checklist (Mobility and Inclusion Unit) 2009
-  'Transport Guidance: Supporting Access to Positive Activities' (DCSF/ DfT, 2009)
-  National Play Strategy, 2008
-  Play strategies for Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  West of England Multi Area Agreement, 2009

Strategy Summaries

- Reduce the number of road casualties;
- Improve road safety for the most vulnerable users and sections of the community;
- Improve air quality in the Air Quality Management Areas;
- Ensure air quality in other areas remains better than the UK and EU standards;
- Encourage and facilitate more physically active travel;
- Improve personal security on the transport network.

With an area as diverse as the West of England we recognise our JLTP3 will have a different impact according to where you live. The box below highlights the varying impact of measures for better safety, health and security.

Indicators and Targets

Indicators and targets will be added following a review of funding and resources.

8.1 Road Safety

Background and evidence

- 8.1.1 Between 1994 and 1998 an average of 472 people were killed or seriously injured (KSI) on the West of England's roads every year. By 2009 this number had fallen to 253 (see Figure 8.1). Child KSI casualties have also fallen (1994-98 average of 57 per year down to 18 in 2009). These reductions are in line with current national casualty reduction targets. The number of people with slight injuries also declined (down from a 1994-98 average of 3944 to 3230 in 2009). About 40% of our KSI casualties in 2008 were on rural roads.
- 8.1.2 Casualty reductions have been greatest amongst car drivers and passengers. Pedestrian numbers have also seen a welcome decrease as have the number of Powered Two Wheeler (PTW) rider casualties. In common with many parts of the country we have experienced an increase in injury accidents involving cyclists (see Figure 8.2). This has to be viewed in the context of the 52% growth in cycling in the West of England between 2003/04 to 2009/10.

Where people live	Contribution to Goal	Impact
Major Urban Areas	Significant	Reducing pedestrian and cyclist casualties, Air Quality Management Areas, community safety, walking and cycling for health
Towns	Significant	Reducing road casualties, local air quality problems, walking and cycling for health
Rural	Significant	Reducing speed related road casualties

Figure 8.1: People killed or seriously injured on West of England roads

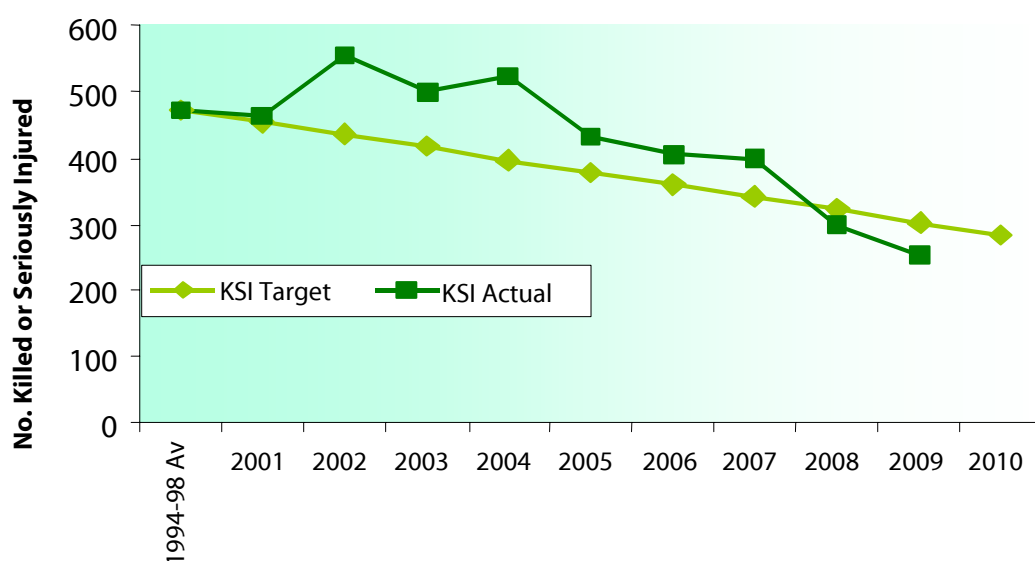
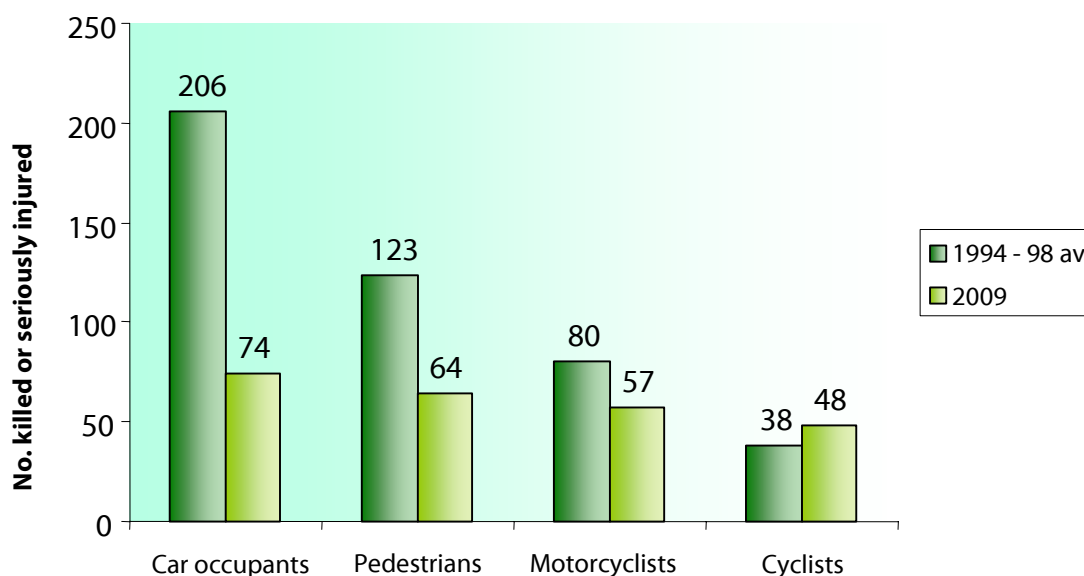


Figure 8.2: People killed or seriously injured in West of England by road user group



8.1.3 The challenge is to meet the national casualty reduction targets put forward in 'A Safer Way' (consultation draft, DfT 2009). The success in reducing casualties to-date (apart from cyclists) means that further reductions will be a challenge because most of the big accident clusters have already been

addressed. More innovative approaches will be needed.

8.1.4 Joint working between the four councils and partners in the West of England Road Safety Partnership is now well established and will continue to be a key factor in casualty reduction. 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.

- 8.1.5 Education, training and publicity programmes will be needed with children and other vulnerable groups a priority. Through the West of England Road Safety Partnership this work can be broadened alongside danger reduction and other engineering measures.
- 8.1.6 Successful interventions will be dependent on both capital and revenue funding.

8.2 Road Safety Strategy

- 8.2.1 The road safety objectives of the JLTP3 are to:
- Reduce the number of people killed or seriously injured in road traffic accidents;
 - Reduce the number of children killed or seriously injured in road traffic accidents;
 - Improve safety for all road users, particularly the most vulnerable members of the community;
 - Ensure that deprived urban wards do not suffer from road casualty rates which are significantly above average; and
 - Improve road safety for vulnerable road users, chiefly cyclists and PTW riders.
- 8.2.2 The main themes of the Strategy focus on:
- Working with partners to optimise the use of the resources available for road safety and ensure best value;
 - Extensive, innovative and challenging education, training and publicity

programmes, capturing hearts and minds of road users across all age groups;

- Schemes targeted at improving road safety for children, motorcyclists, cyclists and disadvantaged areas and addressing specific problems in rural and urban areas;
- Speed management and effective enforcement measures to reduce casualties and improve quality of life where there is evidence of vehicles travelling at inappropriate speeds, for example introduction of 20 mph speed limits in Bristol;
- Improving quality of life by linking road safety initiatives to neighbourhood renewal and town centre enhancement programmes and promoting 'liveability' by good design and maintenance.

8.3 Air Quality and Health

Background and evidence

- 8.3.1 Emissions from transport can have a serious effect on people's health. Exposure to poor air quality seriously affects the most vulnerable such as the



very young, very old and people with cardio-respiratory problems. A key traffic pollutant is Nitrogen Dioxide (NO₂) which is produced both from vehicle tailpipes and from Nitrogen Oxides (NO_x) emissions from vehicles that react in the air and turn into NO₂.

technical work on a Low Emission Zone (LEZ) and identifies a number of additional measures such as a LEZ feasibility study, ECO Stars scheme and low emission vehicle infrastructure and services. See Box 8a for more on what else is happening to improve air quality.

8.3.2 In some locations the concentrations of NO₂ are above the 'objective' (target) set in the National Air Quality Strategy. Air quality assessments have resulted in parts of Bristol and Bath being declared as Air Quality Management Areas (AQMAs) focusing on city centres and main traffic routes. Levels of NO₂ in these AQMAs fluctuate but, in common with all other UK cities, are above the national target.

8.3.4 Monitoring has shown that NO₂ levels in four other locations (centres of Keynsham, Kingswood and Staple Hill and near Junction 17 of the M5 at Cribbs Causeway) are above the national objective. All four have now been declared as AQMAs (see Figure 8.3) and have emerging AQAPs and targets. The Bristol and Bath AQMAs are under review and are likely to be extended.

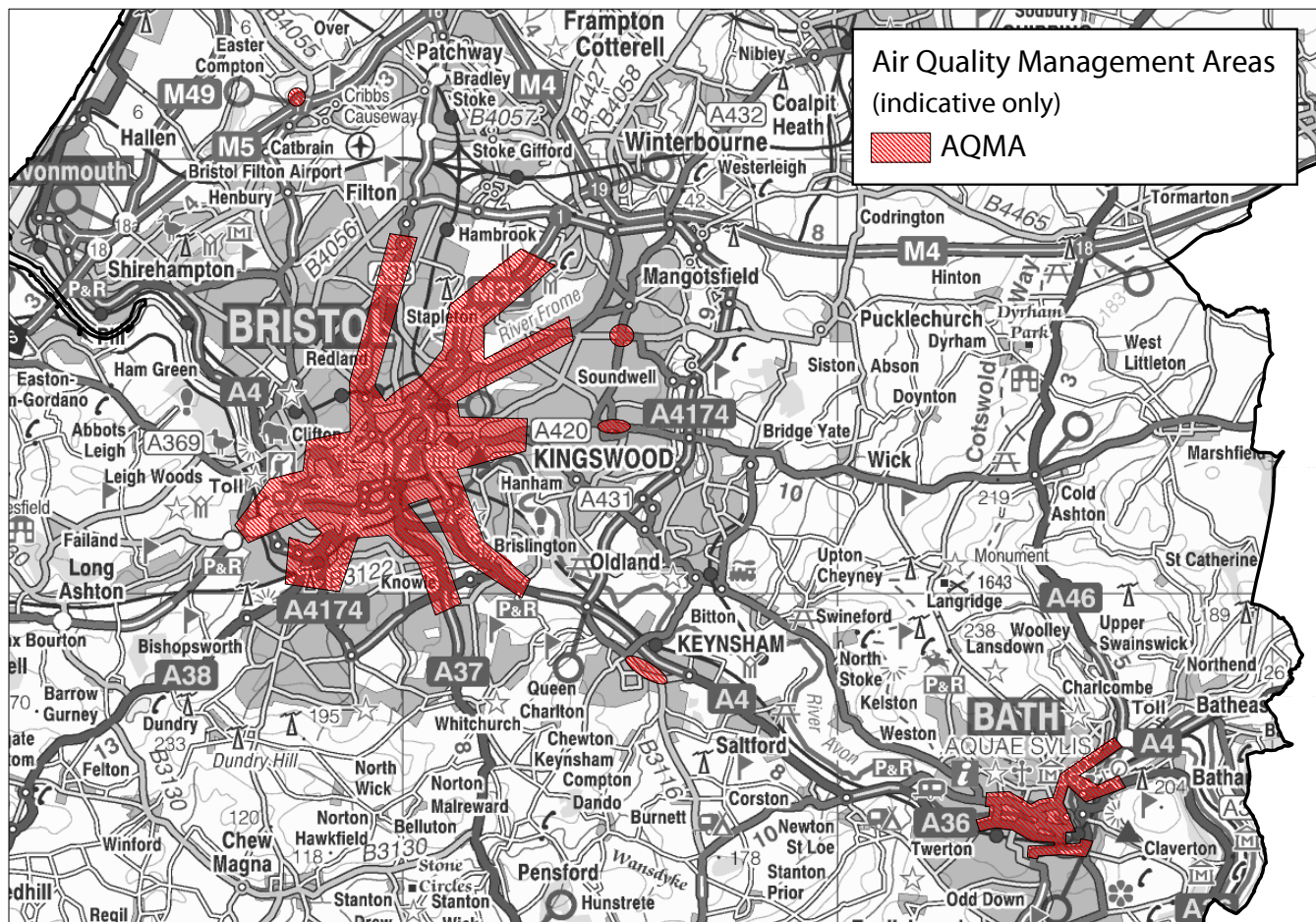
8.3.3 An Air Quality Action Plan (AQAP) was produced for the Bristol AQMA in 2004 that sets out specific measures to tackle air quality problems. A similar AQAP was published in 2010 for the Bath AQMA which was enlarged in 2008 to include the city's major road network. The AQAP takes into account the measures in the Bath Transportation Package major scheme and CIVITAS RENAISSANCE initiative including measures to manage and reduce HGV movements in the Bath City Centre. It provides preliminary

8.3.5 In the JLTP 2006 to 2011 we underlined the need to integrate AQAPs into West of England transport planning because of the close link between air quality and traffic. As outlined above, preparation of the AQAPs is at different stages and we will continue to ensure that the policies and measures they put forward are integrated with those in JLTP3 (see Table 8.1) in line with Local Air Quality Management (Defra policy guidance PG09, Feb 2009).

Box 8a: Air Quality Key Facts and Case Studies

- Vehicles travelling at 50mph produce 25% less NO_x than those travelling at 70mph.
- Trial project in Bristol has upgraded 16 buses from Euro 4 to Euro 5 standard saving up to 2 tonnes of NO_x per year.
- Bristol City Council's fleet now contains over 100 LPG and hybrid vehicles.
- 10% reduction in car trips among participating households through promotional work such as Personalised Travel Planning.
- Highways Agency Managed Motorway initiatives on parts of the M4 and M5 plan to achieve more reliable peak period journey times, smooth traffic flow and improve air quality.
- 10% vehicle fuel savings through driver efficiency training in Bath and North East Somerset (see Box 5b),

Figure 8.3: Air Quality Management Areas



8.4 Air Quality Strategy

8.4.1 Our strategy focuses on:

Information, promotion, awareness and alternatives

- Raising awareness of air quality issues;
- Providing information about air quality for residents and visitors, including those sensitive to high levels of pollution such as elderly people or asthma sufferers;
- Reducing vehicle use by promoting more sustainable modes of transport;
- Encouraging use of lower emission vehicles;

- Promotion of 'eco driving' training with focus on high mileage business users to encourage more fuel efficient driving;
- Encouraging behavioural change.

Network management

- Urban Traffic Management and Control (UTMC) to help reduce emissions associated with stop-start driving and prioritise more efficient modes of transport such as buses;
- Relocating traffic queues away from areas where the air quality impact is likely to be detrimental;

- Work with the Highways Agency through our Memorandum of Understanding on potential air quality improvements on the motorway and trunk road network;
- Targeted parking enforcement on key radial routes to reduce delays and congestion during peak periods;
- Using real time information to provide early warning of road works and other incidents to enable drivers to find alternative routes and help avoid local air pollution hot spots.



Table 8.1: Integration of Air Quality Action Plans and JLTP3 Measures

AQAP Measure	JLTP3 Measure (Chapter)	Benefits/ Impact
Information and promotion - Initiatives encouraging behavioural change	Smarter choices (Ch 6) Road Safety Supplementary Document (and Ch 8)	Reduced car use and more moderate driving, reduced traffic noise and emissions (CO ₂ , NO _x and PM ₁₀), improved road safety and active travel health benefits.
Promotion and provision of alternatives - Travel plans - Walking and cycling facilities - Car Clubs	Smarter choices (Ch 6) Walking and cycling, Rapid Transit, Bus and rail (Ch 6) Major transport schemes (Ch 11)	Reduced congestion and emissions (CO ₂ , NO _x and PM ₁₀). Improved travel choices and accessibility and active travel health benefits.
Managing the road network - Bus priority measures - UTMIC - Speed management - Parking enforcement - Freight transhipment	Network Management and Freight Supplementary Documents (and Ch 6) Demand management (Ch 6) Road Safety Supplementary Document (and Ch 8)	Reduced congestion and emissions (CO ₂ , NO _x , PM ₁₀), improved traffic flows and city centre environment. Improve travel choice, road safety and noise.
Emissions management - Poorly driven vehicles - More efficient vehicles - Alternative vehicles and fuels - Congestion charging/ workplace parking levy - Low Emission Zones	Bus and rail (Ch 6) Network Management and Freight Supplementary Documents (and Ch 6) Green transport (Ch 5) Demand management (Ch 6)	Reduced noise and emissions (CO ₂ , NO _x , PM ₁₀), improved city centre environment.

Signing

- Better signing to direct traffic, predominately Heavy Goods Vehicles, onto the most appropriate routes and away from sensitive areas;
- Use of variable message and other enhanced signing for parking to reduce congestion caused by circulating traffic searching for parking spaces.

Partnership working

- Partnership working with operators to achieve further upgrading of the bus fleet in the West of England;
- Increase the proportion of vehicles meeting the latest Euro standards;
- Use developer contributions where appropriate and other sources of funding to implement elements of Air Quality Action Plans.

Freight

- Work with the freight industry on ways and means of addressing the problem of Heavy Goods Vehicle emissions;
- Extend freight consolidation from Bristol to Bath to reduce the number of city centre deliveries
- Work with the health sector on possible expansion of the consolidation centre for health deliveries;
- Undertake a Low Emission Zone feasibility study for the Bath AQMA linked to freight consolidation;
- Reduce emissions from council vehicle fleets.

Major transport schemes

- Rapid transit and enhanced bus and rail services, accompanied by

improvements for pedestrians and cyclists will provide attractive alternatives to the car helping reduce AQMA traffic levels.

Monitoring

- Continue to monitor local air quality across the whole West of England area, principally where pollutants are close to exceeding the national target.

8.5 Health and Physical Activity

Background and Evidence

8.5.1 Walking and cycling as part of our daily lives can increase physical activity and have large health benefits. The link between transport, physical activity and health is recognised nationally (see Box 8b) and reflected in programmes such as 'Be Active, Be Healthy', 'Change4Life' and 'Healthy Weight, Healthy Lives'. Preparation of the JLTP3 has been aided by comprehensive inputs from the West of England's four Public Health Directors.

8.5.2 Wider issues of obesity and public health are set out in our Local Area Agreements (LAA). Increasing walking and cycling has a key role in increasing physical activity. For example research



Box 8b: Link between Transport and Health

- Measures to improve health are linked with those aimed at reducing carbon emissions, reducing congestion, improving air quality and quality of life, increasing accessibility and reducing risk of injury;
- Heavy reliance on car use can lead to inactive/ sedentary lifestyles and contribute to higher levels of heart disease, stroke, cancers, diabetes and other illnesses including those resulting from obesity;
- 67% of adults in Bristol are at an increasing risk of ill health due to low levels of physical activity; physically active people reduce their risk of developing chronic diseases- such as coronary heart disease, stroke and type 2 diabetes—by up to 50%, and the risk of premature death by about 20-30% (National Active Travel Strategy 2010);
- At school age, active travel contributes to the 1 hour per day of physical activity recommended to control body weight against weight gain;
- Walking and cycling are the easiest ways that most people can increase their physical activity levels;
- Recommended level of activity for adults can be achieved by 30 minutes walking or cycling five times a week;
- Each additional kilometre walked per day is associated with a 4.8% reduction in the likelihood of obesity. Each additional hour spent in a car per day is associated with a 6% increase;
- Greater walking and cycling can produce savings to the local economy through lower levels of workforce absenteeism and help reduce congestion and improve air quality;
- Poor links within neighbourhoods and to public spaces can discourage walking and cycling and thereby discourage physical activity;
- Health benefits of walking and cycling schemes contribute to their good value for money;
- Increased public transport use contributes to increased physical activity.

in Bristol has demonstrated that children who walk to school are significantly more active than those carried in cars.

- 8.5.3 Efforts to increase walking and cycling through School Travel Plans, Bike It, Bikeability (Cycle Training) and walk to school campaigns can lead to health improvements including lower risk of unhealthy weight gain (see Box 8c).
- 8.5.4 Other partnership-working initiatives with local communities have helped to encourage active lifestyles via promotion of the local Rights of Way

networks. Walking and cycling can be encouraged in new development through good design.

- 8.5.5 At a higher level the four Local Strategic Partnerships (see Figure 2.2) are committed to improving health, helping people and above all children to choose healthier lifestyles and plan for health needs as an integral part of new communities. A Memorandum of Understanding has been signed between the four councils and the NHS Primary Care Trusts committing the partners to work together to improve linkages between transport and health.

Box 8c: Improving Health

Walking to Health

South Gloucestershire Council's Walking to Health scheme has supported over 1,800 people to become more physically active through walking more. It is part of a national initiative supported by Natural England and the British Heart Foundation.

With the help of volunteers the scheme arranges walks for people of all ages and abilities. There are walks suitable for people who use wheelchairs or mobility aids and others aimed at parents/ carers of young children (buggy walks).

As people's fitness has increased so has their confidence, resulting in walkers exploring a lot more of the district and walking independently of the group.

Active Bristol

The 5-year 'Active Bristol' programme is a good example of partnership working between the local authority and local Primary Care Trust. It includes a focus on 20mph limits for residential streets, Bike It and social marketing work to promote walking.

Bike It has involved working with 24 schools per year, including areas of deprivation, to promote sustainable transport. The programme includes a 0.4 placement of a public health and transport specialist within the City Development Department.

Go4Life in North Somerset

Go4life is a North Somerset Partnership Initiative to promote healthy and active lifestyles across local communities. The initiative is aimed at encouraging people of all ages to get involved in physical activity.

Measures include training courses for volunteer health walk leaders, walking routes regularly published in the North Somerset Life magazine and Healthy Lifestyles Training Courses run at local leisure centres to tease adults back into physical activity. For the younger age range (5-19 year olds) Sports Unlimited initiative runs courses to enable youngsters to re-engage in sport whilst Weston Cycle Club has been formed for the over 50's leisure cycling.

Active for Life in South Gloucestershire

'Active for Life' is a brand in which has helped achieve Local Area Agreement targets for promoting physical activity in South Gloucestershire: getting 600 new participants of all ages in priority neighbourhoods and over 6,000 in other parts of the authority's area.

Strong partnership working has led to the success of physical activity schemes. For example 1,000 people took part in two 'Bike Week' events in 2009: the Big Bike Breakfast and the Family Cycle Treasure Hunt.

Get Active Bath and North East Somerset

The Get Active Strategy supports people to achieve the recommended levels of physical activity required to benefit their health. It encourages them to become members of clubs or through more regular recreational activities with family and friends.

As part of this strategy a mass cycle 'Skyride' event was held in Bath in July 2010. Around 6,000 cyclists took part and many of the city's streets were closed along the route of the 8km (5 mile) ride. The aim of the event was to give families the experience of cycling in a safe environment.



8.6 Active Health Strategy

8.6.1 Our strategy for improving health and wellbeing focuses on:

- Increasing levels of physical activity through more walking and cycling especially for short journeys;
- Measures to encourage more sustainable patterns of travel behaviour;
- Providing safer, more attractive environments including better access to green spaces, parks and sports facilities;
- Working with the health sector via the Memorandum of Understanding to promote and protect good health;
- Working with public transport operators to ensure it has a key role to

play in supporting people to lead physically active lives;

- Working with schools on travel plans, provision of safer routes and further Walk to School campaigns;
- Consider ways of helping parents understand the relative risks of children's independent travel in relation to road accidents compared with the risks associated with lack of exercise;
- Work with employers on workplace travel plans embracing public and private sector employers;
- Rights of Way Improvement Plans and working with communities, interest groups to promote walking, cycling and horse riding;



- Publicise the benefits for pedestrians and cyclists from 20mph limits;
- Complementing initiatives on green spaces, public realm and promotion of active play;
- Primary Care Trust action plans in disadvantaged areas to reduce health inequalities.

these locations can help people to feel safer. Well maintained footways, footpaths and cycle paths with good surfaces and lighting can encourage more walking and cycling, especially where there is perceived or reported incidence of crime and anti-social behaviour.

8.7 Crime and fear of crime

Background and evidence

- 8.7.1 While people generally feel safe during the day, a significant proportion feel unsafe after dark. Promoting safer stronger communities is a key priority within the councils' Sustainable Community Strategies and multi-agency community safety partnerships (see Box 8d) lead on the preparation of crime reduction strategies for each authority area.
- 8.7.2 Surveys suggest passengers can feel insecure while waiting for public transport at some bus stops or railway stations. Some car parks can be perceived as dangerous whilst people also have concerns about using footpaths and cycle paths in some locations. Promoting more activity in

8.8 Strategy for Crime and Fear of Crime

8.8.1 Our strategy is to:

- Ensure community safety is taken fully into account in the design and operation of our transport infrastructure;
- Recognise the personal security issues experienced by people from different ethnic minority groups;
- Tackle problems of anti-social behaviour through further investment in city, town centre and neighbourhood enhancements;
- Improve lighting, CCTV, local footpath and cycle networks and other measures;
- Encourage the use of good design principles at transport interchanges, bus stops, train stations and car parks, including the Park Mark® standard;

Box 8d : Taxi Marshals

The provision of Taxi Marshals, introduced through the Safer Bristol Partnership, has been considered successful in assisting people to travel more safely and reduce anti-social behaviour. Building on this success, the scheme has been extended to cover further areas in the centre of Bristol, focussing on traditionally busy times of year for the night time economy, such as the Christmas and New Year period.

Bath Nightwatch is a new scheme building customer trust and confidence in having a safe night out in Bath. The scheme brings together licensees, the Police, Taxi Marshals and Door Staff, working in partnership to ensure consumers enjoy a safe night out in Bath. This initiative has been instrumental in the Purple Flag accreditation given to Bath in 2010.

- Provide more secure car and cycle parking to reduce levels of acquisitive crime;
- Support the local train operator in seeking Secured Station Accreditation for local stations;
- Maintain strong links between our community safety partnerships and the British Transport Police, Network Rail, train, bus and taxi operators;
- Work with the police, emergency planning staff and others to identify measures for reducing the vulnerability of the transport network to vandalism and terrorist attacks and for ensuring that the network is adaptable to any impact.
- Consider the risk of terrorist attack when designing and implementing transport schemes.







8.9 Future ideas to 2026

- 8.9.1 In contributing to better safety, health and security we will need to keep our strategy responsive to new ideas over the life of the JLTP3. Box 8e outlines some possibilities.

Box 8e: Future Plan Ideas

- Local projects emerging from new Air Quality Action Plans, e.g. low emission zones;
- Following up CIVITAS and Green Bus Fund schemes in Bath;
- EcoStars approach to encouraging bus and HGV operators to use less polluting vehicles and operate their fleets in more environmentally efficient ways;
- Neighbourhood initiatives linking healthy living with road safety training, education and publicity and smarter choices;
- Further promotion of healthy exercise in Rights of Way Improvement Plan reviews;
- More work to address personal security issues at local level, reducing barriers to safe walking and cycling;
- Learning from best practice on reducing vulnerability to terrorist attacks.

Find out more

-  Cycling, Road Safety, Smarter Choices and Walking draft JLTP3 Supplementary Documents, 2010
-  Air Quality Action Plans for Bristol, Bath, Keynsham, Kingswood, Staple Hill and Cribbs Causeway
-  National Active Travel Strategy, 2010
-  A Safer Way, 2009

Strategy Summary

- Enhance the public realm, public spaces and the urban environment;
- Minimise the impact of transport on the natural and historic environment;
- Reduce the number of people exposed to high levels of transport noise;
- Promote better access to leisure activities and the countryside and neighbourhood links;
- Enhance the journey experience;
- Promote and facilitate active health (see Chapter 8).

With an area as diverse as the West of England we recognise our Joint Local Transport Plan 3 (JLTP3) will have a different impact according to where you live. The box below highlights the varying impact of measures to improve the quality of life and the natural environment.

Indicators and Targets

Supporting indicators will be used to monitor the impact of the JLTP3 on the quality of life in the West of England area. These will be identified following a review of targets, resources and funding.

9.1 Background and evidence

- 9.1.1 Part of the very attraction for people living in the West of England is the high quality of life and natural environment. Historic cities, towns and villages, conservation areas, the two Areas of Outstanding Natural Beauty (AONB) all contribute to this (see Figure 9.1). The Bath cityscape is a UNESCO World Heritage Site. Every year 6.4m tourists visit North Somerset.
- 9.1.2 Transport affects our quality of life. Through our use of public transport, cycling, walking and the highway network it touches our day to day activities and experiences. Ensuring it does not have a negative impact is where this quality of life and natural environment chapter really kicks in. Furthermore we need to recognise that during the lifetime of the JLTP3, up to 2026, there are likely to be many challenges to our quality of life from new technology to changing lifestyles to the potential impact of climate change and peak oil.

Where people live	Contribution to Goal	Impact
Major Urban Areas	Significant	Protecting Bath World Heritage Site, city and district centre enhancements, public realm projects, improved neighbourhood and local links, public transport integration, noise management
Towns	Significant	Town centre enhancements, improved neighbourhoods and local links, more attractive inter-urban public transport
Rural	Significant	Protecting Areas of Outstanding Natural Beauty, village conservation area enhancements, rights of way, local and National Cycle Network improvements

Figure 9.1: Quality of Life

Streets for Communities

Bristol Core Strategy's new approach:

- Rebalance street space in favour of pedestrians and cyclists.
- Creating attractive street environments.
- Design drawn from Dutch Woonerf and Homezone principles.
- Streets animated with activity.
- Tree planting to soften and green residents' outlook and reinforce streets for people.

North Fringe Area Objectives

- Integrating new development with existing communities and businesses.
- Promoting high quality public realm and Green Infrastructure.
- Enhance community identity and local distinctiveness.
- Access to better public transport, cycling and walking routes, local facilities and services.

Local Strategic Partnerships / Core Strategies

- Creating a sense of place.
- Highest standards of urban design and green technology.
- Protect, enhance and promote enjoyment of the natural world, historic and cultural environments.

Residential Streets

- Cars parked on pavements and other obstructions.
- Speeding concerns.
- 20mph speed limits to encourage more cycling and walking and reduce casualties.
- Formal and informal Homezones.
- Create stronger and safer communities.

Mendip Hills Area of Outstanding Natural Beauty

- Covers 198 sq kms.
- Issues around traffic levels, public transport, heavy goods vehicles and alternative routes for non-vehicular traffic.
- Promote cycling, walking and public transport.



UWE Campus

- Enhanced environment
- Commitment to sustainability and green transport measures.
- Bespoke routes for public transport and improved services.
- Safeguarded rapid transit route.
- New cycle and pedestrian routes to residential areas.

Cotswolds Area of Outstanding Natural Beauty

- Second largest protected landscape in England.
- Issues around public transport, long distance travel, commuting and heavy goods vehicles.
- Encourage and promote increased use of buses, trains, cycling and walking.

Noise

- Road traffic is the main cause of exposure to ambient noise.
- 70% respondents in Bristol concerned about levels of noise.
- 45% bothered by traffic noise in their homes.
- Noise Action Plans supported by JLTP3.

Yate and Chipping Sodbury Area Objectives

- Enhance the public realm and operation of the railway station and improve links to the town centres and key employment sites.
- Accessible and attractive public transport, walking and cycling network linking north Yate and the town centre.
- Integrated approach to place making to deliver a well balanced sustainable community.

Strategic Green Infrastructure

- Green active travel routes promote walking, cycling and horse riding.
- Contributes to the delivery of sustainable, healthy communities by improving connectivity.
- Minimise and mitigate scheme impacts by allowing species adaptation, resilience to climate change, and contributes to the public realm.
- Enhancements considered in pre and design stages of planning applications.
- Integrates environmental interests with the JLTP3.
- West of England Green Infrastructure Group to ensure the interests of the wider strategic Green Infrastructure network are considered.

Avon Valley Railway

- Six mile return train ride alongside the Bristol to Bath railway path.
- River Avon valley from an aspect that cars cannot reach.
- Opportunity to swap leg-power for steam power.
- Linked to boat trips, riverside pubs, picnic area, refreshment facilities, cycle parking and walks.
- Long term plans to extend the line to the outskirts of Bath through the scenic Avon Valley.

Bath World Heritage Site

- World Heritage Site since 1987.
- Recognised as a place of outstanding universal value for its architecture, town planning landscape and archaeological remains.
- Home to 84,000 people and attracts 3.7m visitors a year.
- World Heritage Site Management Plan to conserve the cultural assets of the city.

- 9.1.3 Transport it should be remembered is not an end in itself. Getting somewhere is our goal for work, shopping, meeting friends and accessing services. We use a range of modes to get there although some of us will face barriers in terms of mobility difficulties and age. It can deliver wider benefits too. Regular physical activity such as walking and cycling can bring about major health benefits and an improved quality of life.
- 9.1.4 Our strategy for the natural and historical environments, public realm, noise, access to the countryside and leisure facilities and improve the journey experience is set out at the end of this chapter. Below we focus on the last four of these.

9.2 Public Realm

- 9.2.1 Streets make up the greatest part of the public realm and need to be designed to create attractive spaces where people live, work and spend leisure time. Movement through areas needs to be well designed to encourage people to walk, cycle and use public transport, reducing car-use for short journeys. Opportunities for improving access and movement arise through securing good design in new development and the redevelopment and regeneration of areas (see Figure 9.1 and boxes 9a, 9b, and 9c for great work across the West of England).

Box 9a : Pier Square, Weston-super-Mare

Pier Square, Weston-super-Mare, lies at the heart of the seafront. In its previous form as a traffic island it failed to contribute appropriately to the town and its activities. Through the creation of a pedestrian priority public space Pier Square now offers a place that is accessible to all users. The space allows you to easily move from one place to another, and provides visual and spatial connections to the town centre, seafront and other attractions, encouraging pedestrian flows.



Pier Square is a jointly funded enhancement by South West Regional Development Agency, North Somerset Council and the JLTP 2006 - 2011. Through this investment and improving the overall quality of the space it has engaged adjacent land owners to invest in their properties and take advantage of the opportunities that the high quality space offers.

Box 9b: Public Realm in Bristol

A rebalanced city centre

The city centre is the cultural and economic heart of Bristol and will continue to play a critical role in its future prosperity and identity. An attractive and walkable city centre will play a key role in shaping future competitive advantage, as other major cities across Europe have recognised.

The quality of the city centre's streets and public spaces is being eroded by the adverse impacts of vehicular traffic congestion – noise, pollution, severance of key pedestrian routes. The objective is to:



- Establish a new relationship between people, place and vehicular traffic that improves the environmental, cultural, economic and social wellbeing of the city centre and its communities;
- Prioritise the needs of pedestrians, cyclists and public transport users to reinforce Bristol as an ambitious European City;
- Achieve the highest sustainability and urban design standards;
- Provide traffic access to support the commercial activity of the city;
- Develop new approaches to dynamic traffic management which enables traffic access or restricts it at different times of the day or week;
- Balance vehicular movements and local access against the wider vision.

Ambitious and long term, this integrated framework will be delivered incrementally over the plan period.

A transformed South Bristol: Connecting people and place

The Bristol Local Development Framework Core Strategy prioritises the regeneration of South Bristol, to include additional mixed use development with supporting infrastructure.

The focus of change will be Knowle West and Hengrove Park/Hartcliffe Campus. A new urban quarter will be created at Hengrove Park. Improvements to pedestrian, cycling and public transport routes will form a vital part of urban design frameworks in creating quality places for existing communities, attract new residents and future investment. All development, public realm and transport projects will reflect the following sustainable urban design principles:

- Improving movement in South Bristol in a way that contributes to a distinctive and memorable sense of place;
- Reducing the divisive and poor quality nature of existing highway infrastructure through new frontage development, traffic management and public realm improvements;
- Integrating public transport interchanges and bus stop environments with pedestrian route networks;
- Connecting communities and establishing or reinforcing existing Green Infrastructure.



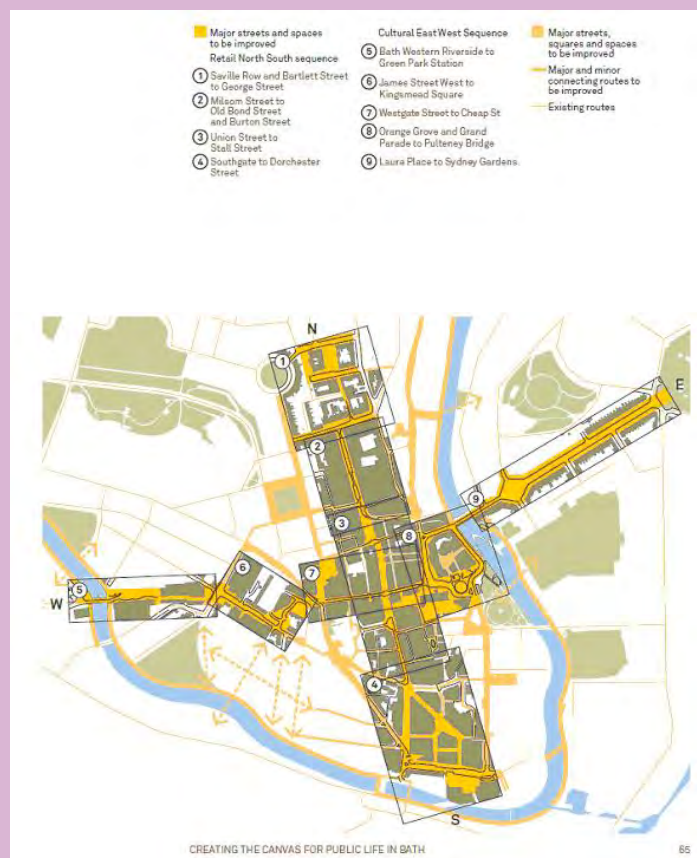
Box 9c: Bath Public Realm and Movement Strategy

Bath's Plan is based on the principle that the City's public realm, the streets and spaces between its buildings, should be recognised, invested in and managed as one of its most exciting assets. It proposes that Bath should become the UK's most walkable city, and the public realm should be viewed as the canvas upon which a healthier, more vibrant and all encompassing public life, a more dynamic and more successful economic life, and a more distinctive and creative brand identity for the city can be established.

The Public Realm Plan is underpinned by four key elements:

1. Rebalancing Bath's Movement and Spatial Structure - creating a movement hierarchy where, starting with the city centre, the pedestrian, the cyclist and public transport are given priority over the car.
2. Refashioning Street Spaces and Riverscape – identifies and glues together a series of streets and spaces which can be reclaimed and created for public life with high quality, bespoke street furniture and surfaces.
3. Revealing the City through a new Wayfinding and City Information System – transforming the user's experience of the city centre both before and during their visit through maps (online and physical), information sheets, on-street wayfinding signage and panels.
4. Re-Animating Public Life within the City - connecting to a range of other existing and forthcoming Arts, Cultural, Sports, Health, and Leisure strategies and hosting a year round programme of cultural and community events and activities.

An outline action plan focuses on a North/South route between Milsom Street to the north and the new Southgate development to the south and an East/West route along Cheap Street and Westgate Street to connect to Bath Package improvements to the High Street. Simplified pedestrian priority streets and spaces, resurfaced in natural stone and showing the proposed new range of high quality street furniture and wayfinding products.



9.2.2 Street space becomes attractive when it is transformed into 'places' and space for people with easy access to high quality public transport and walking and cycling networks. We will open up our street space to regain some of the quality of life benefits of streets for people.

9.2.3 Public spaces including play space, streets and highways, street furniture, seating, toilets, lighting, signage and walking and cycling facilities affect the public's perception of their local environment. Good maintenance of such facilities is also important.

9.2.4 Evidence suggests re-designing the built environment in deprived areas can significantly improve health outcomes by encouraging cycling and walking through wider pavements,

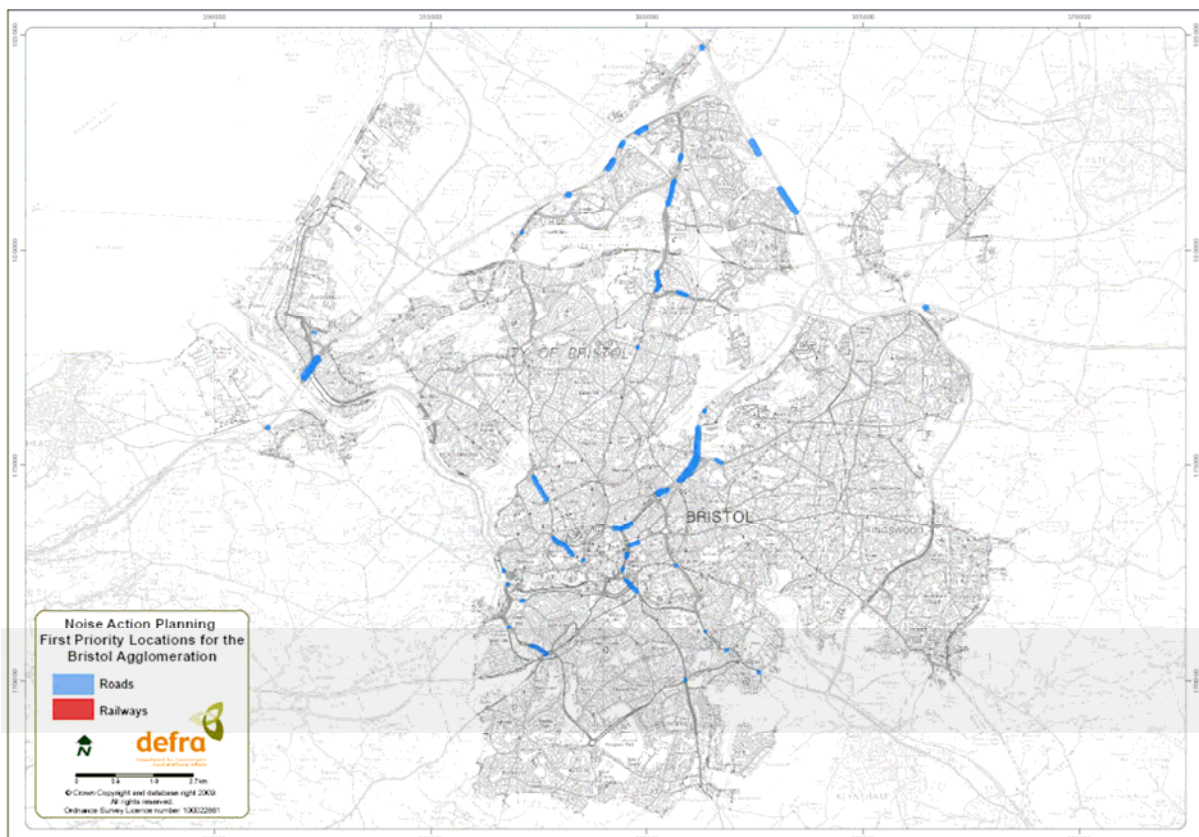


cycle lanes, traffic calming and designing walkable neighbourhoods. Ultimately we want our streets to be accessible, safe, sustainable and healthy.

9.3 Noise

9.3.1 The Department for Environment, Food and Rural Affairs (DEFRA) has produced Noise Action Plans as required by the European Union (EU)

Figure 9.1: Defra Bristol area noise map



Directive on the Assessment and Management of Environmental Noise (2002/49/EC). For the Bristol area 'First Priority Locations' due to high road noise are shown in Figure 9.1. These cover approximately 500 dwellings (900 people). Outside of Bristol DEFRA have identified noise as an issue on parts of the A4 (including Keynsham, Saltford and Bath), A46 (including Batheaston), A432, A4174, M4, M5, A38, A369, A37, A370 (including Weston-super-Mare) and A367.

- 9.3.2 Working with DEFRA, the Highways Agency and rail industry we will investigate what noise management measures might be appropriate, feasible and affordable. Measures might include renewal of carriageways, targeted maintenance, noise barriers, speed limits and road hierarchy reviews. We will encourage the Highways Agency to tackle noise as part of its management plans. We will also look at ways to protect the quietness of open spaces.

9.4 Access to leisure and the countryside

- 9.4.1 The Public Rights of Way network plays an integral role in developing an integrated transport network for the area. It offers a network for walkers, disabled people, horse riders and cyclists. Supplementing our Public Rights of Way is a network of other paths ranging from footpath links in urban housing estates, 'permissive' paths in the countryside and many off-road cycle paths.
- 9.4.2 There are Local Access Forums, jointly covering Bath and North East Somerset, Bristol City and South

Gloucestershire with a separate one for North Somerset. They provide advice as to the improvement of public access to land for the purposes of open-air recreation and enjoyment. Chiefly this is through the two Rights of Way Improvement Plans (ROWIP).

- 9.4.3 The ROWIPs identify opportunities to improve access to the countryside including a new Outdoors Access website. Further development of existing multi-user routes and the National Cycle Network offer more scope for travel. The current ROWIPs will be reviewed for the post 2011 period with, subject to resources, the possibility of developing one combined plan for the West of England area. Ways to improve Green Infrastructure will be included
- 9.4.4 Horse riding in many of our rural areas is a popular recreational hobby contributing to our tourist industry throughout the year. It offers access into and around the countryside in a sustainable manner. We want to encourage growth in the number of horse riders. They along with horse drawn carriages, cyclists and walkers are keen to have continuity of safe routes with the minimum need to use busy main roads.
- 9.4.5 Encouraging walking and other forms of sustainable travel helps to tackle congestion, reduce carbon emissions, improve air quality and promote active health. We want alternatives to the car that are a realistic first choice for the majority of trips.
- 9.4.6 North Somerset and Bristol City Councils have worked in partnership with The National Trust to develop a

Travel Plan for the Tyntesfield country estate to reduce the dependence of the attraction on the private car. The Plan includes a travel map, £1 voucher for those who cycle or walk, signing, footpath and cycle parking improvements.

- 9.4.7 As well as access to the countryside and tourist attractions we aim to improve access to other leisure activities. For example enhanced neighbourhood links can make it easier to get to local parks, play areas and sports centres.

9.5 Journey Experience

- 9.5.1 The journey experience for public transport users will change radically as the West of England's programme of major transport schemes (see Chapter 11) starts to be implemented subject to funding. Completed early in the life of the JLTP3 will be the Greater Bristol Bus Network bringing enhanced passenger facilities and services to ten key corridors serving over 70 routes. Close behind are the Bath and Weston Packages with the first Rapid Transit route in the former and bus improvements in the latter. Rapid transit will get a further boost with the Ashton Vale to Bristol Temple Meads, North Fringe to Hengrove and South Bristol Link routes.
- 9.5.2 For the rail passenger the proposed Greater Bristol Metro would see enhanced half hourly cross Bristol train services covering Yate, Bath and Weston-super-Mare alongside reopening of the Portishead line. Meanwhile the Severnside and Heart of Wessex Community Rail Partnership (see Box 9d) continue to do sterling

work on improving local stations and services.

- 9.5.3 Apart from our major scheme programme the journey experience for public transport users will improve through enhancements to interchanges, 'smart' travelcards, greater co-ordination of timetables and improved public transport access to Bristol Airport.
- 9.5.4 Vehicle drivers would also see improvements with alternatives to routes that are currently congested for example the South Bristol Link, Stoke Gifford Link and the M5 Junction 21 Bypass. People living on routes that would be relieved of traffic can expect improved air quality and reduced noise, as complementary measures to 'lock-in' traffic reductions are implemented.
- 9.5.5 Similarly the quality of journey experience will be enhanced for cyclists and pedestrians as networks develop and public realm improvements happen.



Box 9d: Severnside Community Rail Partnership

The Severnside Community Rail Partnership, sponsored by the four councils, Somerset County Council and First Great Western was formed in the summer of 2004 to identify and implement measures to encourage the use of local trains (see map).

Local stations have all benefited from makeovers, new artwork, flower beds, mosaics and improved information with simplified timetable posters. The Probation Service, local groups and schools have been actively involved encouraging more pride and less vandalism. Local schools have now formerly “adopted” several local stations. A community garden centre on some disused track bed at Stapleton Road station was opened in 2008.

A wide range of leaflets and promotions aimed at encouraging families, scholars and walkers to use trains plus a dedicated website for the Severn Beach line www.severnbeachline.org have all helped to attract more passengers.



Such has been the Partnership's success that it won two first prizes, second and third prizes and highly commended at the 2010 National Community Rail Awards.

Heart of Wessex Rail Partnership

The Heart of Wessex Rail Partnership works jointly with community and voluntary groups to promote and facilitate more use of the Bristol to Weymouth line. Its work includes encouraging more use of public transport and projects aimed at improving walking and cycling access and facilities, information, safer and more welcoming station environments and timetable improvements.

The route provides good access to two World Heritage Sites, two Areas of Outstanding Natural Beauty, the Kennet and Avon Canal, Bristol to Bath railway path and several attractive shopping destinations. All are actively promoted through the Partnership's marketing work. Since 2003 journeys on the line have grown 164% compared with national growth of 43% for the same period.

The JLTP3 fully supports the work of both Partnerships.

9.6 Strategy

9.6.1 Our Strategy for improving the quality of life and natural environment is:

Public Realm

- Protecting and promoting areas where pedestrians and cyclists can enjoy a safer environment to encourage walking and cycling;
- Improving access, managing traffic and speeds and promoting good design in new developments including provision of 'green infrastructure' and improved neighbourhood links;
- Applying design and parking standards in line with the Local Development Frameworks.

Natural environment

- Support the Cotswolds and Mendip Hills Areas of Outstanding Natural Beauty Management Plans;
- Mitigate the impact of the JLTP3 through the Habitats Regulations Assessment as required;
- Support Strategic Green Infrastructure planning.

Historic environment and public realm

- Maintain and enhance historic town and city centres, conservation areas and villages;
- 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;

Noise

- Work with DeFRA, the Highways Agency and rail industry on Noise Action Plans and quiet areas.

Access to the countryside and leisure facilities

- Continued development and implementation of the Joint and North Somerset Rights of Way Improvement Plans to improve access to the countryside, public open space, cemeteries, parks and gardens;
- Further development of existing multi-user routes and the National Cycle Network to offer more scope for travel;
- Implement a coastal footpath along the Bristol Channel coast with multi user crossings of the Rivers Yeo and Axe;
- Enhance, promote and enlarge the network of routes accessible and safe for horse riders;
- Address the number of accidents and casualties each year to horse riders and promote awareness and safety skills;
- Promote and provide information on public transport links to the countryside;
- Develop an Outdoors Access website to promote cycling, walking and horse riding routes;
- Joint working with partners to improve access to leisure facilities and the countryside.

Journey Experience

- Implement the programme of major transport schemes (see Chapter 11);
- Enhance interchanges at Bristol Temple Meads, Bath Spa and other stations;

- Introduction of a West of England 'smart' travelcard;
- Work with operators to achieve maximum co-ordination of bus and rail timetables;
- Work with Bristol Airport to achieve improved access to the airport by public transport;
- Support the Severnside and Heart of Wessex Community Rail Partnerships.

Active Health

- Implement measures to encourage

active travel and more sustainable patterns of travel behaviour as a key means to improve people's fitness, health and quality of life (see Chapter 8).

9.7 Future ideas to 2026

- 9.7.1 Our Strategy is by no means a final one. As other quality of life and natural environment issues and problems emerge we will review and develop the Strategy. Some possible ideas for the future are in Box 9e.

Box 9e: Future Plan Ideas

- Consider traffic free historic town, village and city centres;
- 20mph limit residential area pilot schemes extended;
- Quiet Deliveries Demonstration scheme;
- Complete strategic gaps identified in Rights of Way Improvement Plans;
- Sign and promote community walking networks within and between suburban areas, towns and villages;
- Make sustainable transport the first choice when visiting the countryside and for leisure activities;
- Development of European style 'car free' new neighbourhoods in areas well served by public transport;
- Develop a design checklist to ensure schemes contribute to the Green Infrastructure Network;
- Look at Healthy Town concept to tackle obesity, eat healthily and be active.

Find out more

-  Bath World Heritage Site Management Plan
-  Core Strategies for Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  Cotswolds Area of Outstanding Natural Beauty Management Plan 2008 – 2013.
-  Creating the Canvas for Public Life in Bath, 2010
-  Cycling, Public Transport and Walking draft JLTP3 Supplementary Documents, 2010
-  DEFRA Noise Mapping and Noise Action Plan for the Bristol Agglomeration, 2010
-  Joint Rights of Way Improvement Plan 2007 - 2011
-  Mendip Hills Area of Outstanding Natural Beauty Management Plan 2009 – 2014.
-  North Somerset Rights of Way Improvement Plan 2006 - 2011
-  Strategic Environmental Assessment of the JLTP3, 2010
-  UWE New Campus Concept Statement, 2009

10.1 Background

10.1.1 The Delivery Plan will set out how we intend to implement the Joint Local Transport Plan 3 (JLTP3) on a three year rolling programme. It will be a sister document to the JLTP3. This chapter provides a summary of our approach. As levels and the type of future funding are confirmed by the Government the full three year Delivery Plan 2012/13 to 2014/15 will be published as part of an early refresh of the JLTP3 in late 2011. An interim one year delivery plan for 2011/12 will be produced in spring 2011.

10.1.2 We will build on the success of lessons learnt from the JLTP 2006 to 2011. We have a proven record of joint coordination and delivery on the ground such as the Greater Bristol Bus Network (see Chapter 11), Cycling City and measures implemented through the West of England Road Safety Partnership.

10.1.3 In developing the Delivery Plan we need to consider a range of influences and requirements, such as the key transport goals in Box 2c, recommendations arising from the Strategic Environmental Assessment (Chapter 4), targets (Chapter 12), engagement results (Chapter 3), Strategic Green Infrastructure (Chapter 9), and the councils' other plans (Chapter 2), to establish a clear set of investment priorities. These will be used to determine how we propose allocating our funding to deliver our programme and initiatives.

10.1.4 In developing the Delivery Plan we recognise it needs to be realistic and deliverable, whilst promoting schemes

and measures that make a contribution to the five key transport goals and the JLTP3 indicators and targets. A three year Delivery Plan develops a higher confidence level in scheme deliverability with the flexibility to focus resources. At the same time we must look ahead acknowledging the delivery of major transport schemes requires long lead in times.

10.2 Schemes

10.2.1 We propose that the Delivery Plan is broken down into a number of thematic areas of measures. In Table 10.1 we set out their potential contribution to the five key transport goals.

10.2.2 Schemes that will be considered include:

Public Transport

- Investment in the Rapid Transit network across the area, funded by major transport scheme applications and our own resources;
- Improved bus stops and travel information, bus priority measures, revenue funded supported services, concessionary fares;
- Improvements at rail stations such as cycle parking, pedestrian access and travel information;
- Rail network investment with Network Rail and train operators;
- Smart ticketing;
- New and improved Park and Ride sites and services;
- Community Transport and demand responsive public transport.

Table 10.1 : Contributions of measures towards the Transport Goals

Thematic area	Key Transport Goals				
	Reduce carbon emissions	Support economic growth	Contribute to better safety, health and security	Promote accessibility	Improve quality of life and healthy natural environment
Public Transport	✓✓✓	✓✓	✓✓	✓✓	✓✓
Road Safety	✓✓	✓✓	✓✓✓	✓✓	✓✓✓
Smarter Choices	✓✓✓	✓✓	✓✓✓	✓✓	✓✓
Network Management	✓✓	✓✓✓	✓✓	✓✓	✓✓
Network Maintenance	✓✓	✓✓✓	✓✓✓	✓✓	✓✓
Environment & Public Realm	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓

Contribution: ✓✓✓ = high ✓✓ = medium ✓ = low

Road Safety

- Local safety schemes;
- 20mph limits;
- Education, Training and Publicity.

Smarter Choices

- New and improved cycling and pedestrian infrastructure and training;
- School and employer travel plans;
- Safer routes to school projects;
- Personalised travel information;
- Car clubs;
- Promotion of car sharing, cycling, walking and public transport.

Network Management

- Demand management;
- Schemes to manage speed or capacity;
- Schemes to reduce congestion;



- Urban Traffic Management & Control systems;
- Car parking enforcement and parking controls.

Network Maintenance

- Carriageways;
- Footways and cycleways;
- Highway structures;
- Public lighting;
- Public transport infrastructure;
- Highway drainage;
- Highway signage;
- Public Rights of Way;
- Traffic and road safety management;
- Parking infrastructure.

Environment and Public Realm

- Schemes that support regeneration and development;
- Schemes that improve air quality;
- Schemes that improve the public realm;
- Schemes that support Strategic Green Infrastructure.

10.3 Funding sources

10.3.1 The Delivery Plan will look to maximise funding from as wide a range of sources as possible including:

- Department for Transport (DfT) simplified funding streams;
- Local Sustainable Transport Fund;
- Regional Growth Fund;
- Tax Increment Financing;
- Council funding (into areas such as maintenance and revenue support);
- Developer contributions;
- Other funding sources.

10.3.2 We will look to explore further opportunities for joint procurement,

building on recent successes such as for traffic signals and public transport.

10.3.3 Demonstrating value for money will be a key consideration in drawing up the Delivery Plan. Low cost high benefit schemes will be explored whilst recognising the need for major schemes to support our strategic objectives. We will investigate setting up a new scheme evaluation system to help prioritise our delivery programmes.

10.3.4 The intention is, through a series of Memoranda of Understanding and Action Plans, to expand the scope of the Delivery Plan to include scheme programmes from our partners at the Highways Agency, rail industry and health sector. This will increase opportunities to co-ordinate and integrate schemes and demonstrate how the JLTP3 fits into the wider delivery picture.

10.4 Managing the Programme

10.4.1 Our Programme will continue to be flexible and capable of accommodating changing circumstances such as changing funding and Government policies. Programme and risk management processes will be followed in line with best practice.

10.4.2 The Delivery Plan will describe how progress towards trajectories informs the Programme year-on-year. A revised Delivery Plan will be produced every 3 years throughout the life of the JLTP3.

10.5 Future Funding Impact

10.5.1 The Comprehensive Spending Review (CSR) announced by Government on 20th October 2010 provided details of overall levels of funding to be made available for transport nationally over the four years of the CSR period (2011/12 – 2014/15).

10.5.2 The CSR indicated that the national funds for the LTP Integrated Transport Block would be significantly reduced by 50% for 2011/12. After this, total allocations may rise slowly leading to an overall 42% reduction on current funding levels for the four year period as a whole. In terms of the LTP Highway Maintenance block, total national funding will be reduced by some 7% in 2011/12, with further reductions in later years giving an overall reduction of 13% on current funding levels for the four year CSR period.

10.5.3 Additional funding, however, was also

announced in the shape of the Local Sustainable Transport Fund, with national funding of £560 million available over four years. This is available for authorities to bid for implementing packages of measures that support economic growth and reduce carbon emissions as well as delivering cleaner environments, improved air quality, enhanced safety and reduced congestion.

10.5.4 A 50% reduction in integrated transport funding will have large implications in the ability to deliver against the objectives of JLTP3 in terms of supporting economic growth and reducing carbon emissions. In the light of this it is very important that our area maximises funding from other sources, such as bids under the Local Sustainable Transport Fund and the Regional Growth Fund.

10.5.5 In the light of future funding levels the first full three year Delivery Plan 2012/13 to 2014/15 will be produced accordingly.



Summary

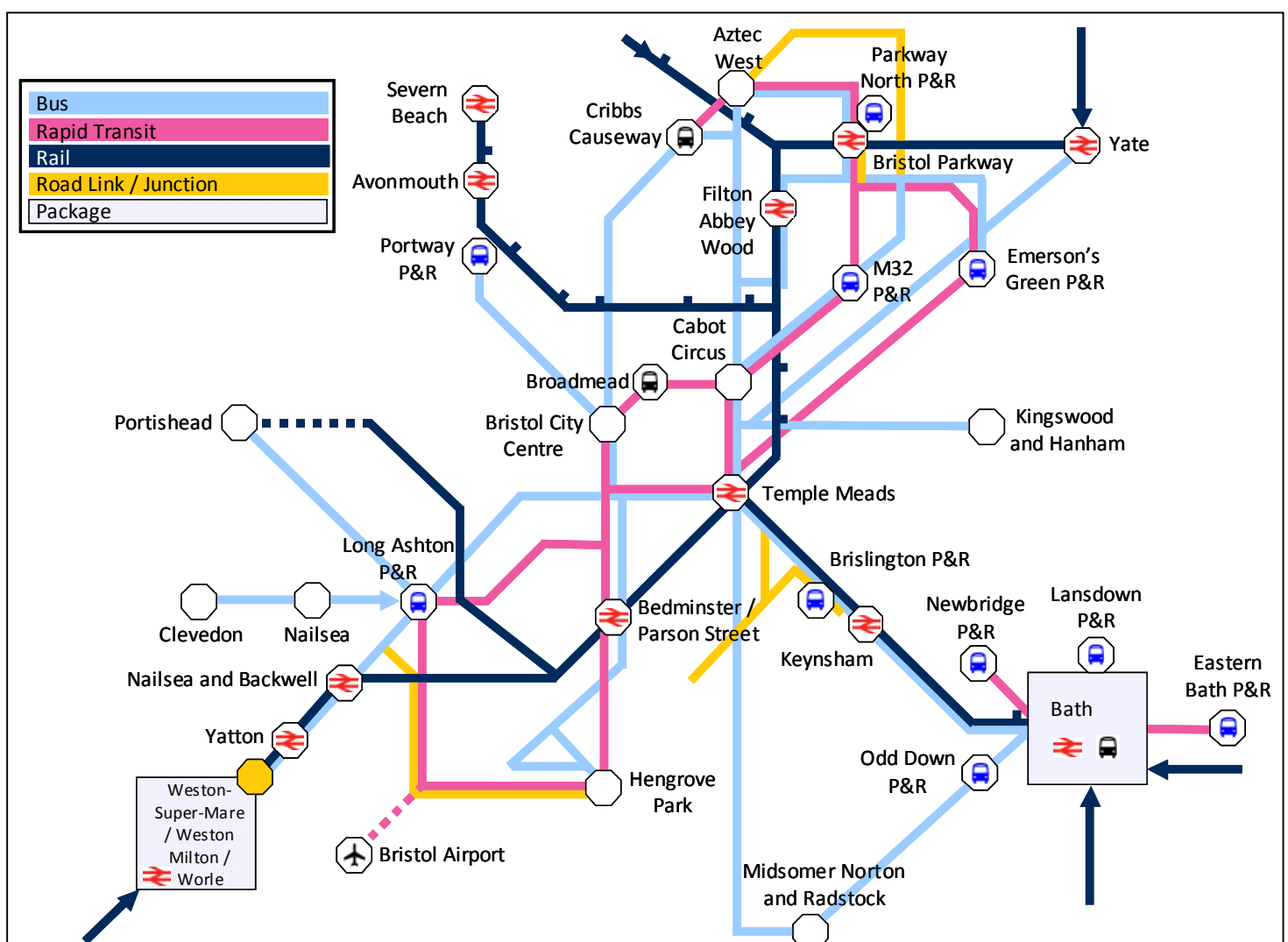
- 11 major transport schemes providing £600m of investment;
- Strong governance and delivery;
- Travel+ branding and engagement;
- Funding from other sources;
- Vision to 2026 and beyond.

11.1 Delivering the Vision for Transport

11.1.1 Key to supporting the objectives of the Joint Local Transport Plan (JLTP3), and

predominantly in terms of economic growth, is the West of England's major transport scheme programme. Work carried out through the Greater Bristol Strategic Transport Study (GBSTS) and the Joint Local Transport Plan 2006 to 2011 demonstrated the crucial need for these major investment programmes. They are needed to support the West of England economy and regeneration, to reduce carbon and improve access to jobs and services, particularly for communities which suffer high levels of deprivation. These objectives are vital in realising the wider shared visions of the authorities' community strategies (see Figure 2.2) and Local Enterprise Partnership.

Figure 11.1: Our Transport Network Vision



11.1.2 Studies indicate that the schemes would, by improving connectivity between business, and between them and their workers, deliver a 2% increase in the economic output of the West of England (an additional £635m of Gross Value Added) supporting the creation of 9,000 additional jobs.

11.1.3 Figure 11.1 sets out the vision for our transport network. It is a vision to reduce both congestion and carbon; in particular the rapid transit, bus and rail schemes have a significant part to play in tackling those 5 to 25 mile journeys which account for 43% of CO₂ emissions (see Table 5.1).

11.2 Funding Position October 2010

11.2.1 Given the impact of the recession on public finance, as part of the Comprehensive Spending Review (CSR) Government have undertaken a wide-ranging review of the national major schemes programme. The major schemes process has provided an important source of additional central government funding to enable authorities to take forward public transport and highway schemes which cost over £5m that support the objectives of the JLTP3 but which would otherwise be unaffordable from the Integrated Transport or Maintenance block allocations or from other sources.

11.2.2 In October 2010 the Department for Transport (DfT) issued new guidance on the way in which major schemes will be taken forward. This seeks to categorise major schemes based upon their stage of development and value for money. The outcome from this process is summarised in the following sections for the West of England major schemes

programme. The Greater Bristol Bus Network scheme is unaffected by this review and implementation continues.

Development Pool

11.2.3 These are schemes which have already received Programme Entry (first stage approval) and have a good value for money case. Amongst 22 schemes nationally, for the West of England this includes the Bath Package, Ashton Vale to Temple Meads Rapid Transit and the Weston Package. For these schemes, expressions of interest are sought by the DfT by the end of December 2010. These will include an indication of the funding sought, any scope changes from the original bid, supporting evidence for the value for money case and delivery timescales. A funding pot of some £600m has been identified for these schemes to 2014/15.

11.2.4 The DfT have made it clear that this will be a competitive process and that the overall proportion of non-DfT funding will be a factor in final decisions. Bids for successful schemes will be submitted in autumn 2011, with a view to securing reconfirmed Programme Entry by the end of December 2011.

Pre-Qualification Pool

11.2.5 These are schemes which have received Programme Entry but have a lower value for money case, and schemes for which bids for Programme Entry have already been submitted. Amongst 34 schemes nationally, for the West of England this includes South Bristol Link and North Fringe to Hengrove Package. For these schemes expressions of interest are sought as per the Development Pool. These will be

reviewed alongside a fitness for purpose check of the submitted business cases, and in January 2011 a decision will be made on which of these schemes join the Development Pool. Those not selected would not be funded in the Spending Review period to 2014/15.

Other Schemes Previously Prioritised through the Regional Funding Allocation

11.2.6 The DfT have advised that they will not consider funding for new schemes other than those in the Development and Pre-Qualification Pools, and will not accept any new Programme Entry bids. They intend to provide more guidance on how these schemes could be taken forward in the future by the end of 2011. For the West of England this includes Portishead Rail corridor, Greater Bristol Metro, M5 Junction 21 Bypass, Callington Road Link/Bath Road Improvements and Rapid Transit Emerson's Green – Bristol City Centre.

11.3 Continuing the Vision

11.3.1 Despite uncertainty over future funding it should be recognised the West of



England has come a long way since the development of the first JLTP 2006 to 2011.

11.3.2 At the time of developing the first JLTP the authorities had been recipients of only limited major capital investment from the DfT. Further details of the current programme of major schemes can be found later in this chapter but notwithstanding the major schemes review described in 11.2 we should not lose sight of an impressive start in the last few years with:

- Securing £42m from DfT and £20m from First to deliver the Greater Bristol Bus Network
- Securing in principle approval (Programme Entry from DfT) for the Bath Package, Weston Package and Ashton Vale to Temple Meads Rapid Transit schemes
- Development of a further 7 schemes including producing detailed business cases to support the South Bristol Link and North Fringe to Hengrove Package.

11.3.3 Looking towards 2026 and beyond the aspirations of the West of England will be for further investment in public transport, maximise the use of low carbon travel choices within urban areas and promote active travel.

11.3.4 Our vision for a cycling network centred on the major urban areas will only partially be realised by 2026 with present funding levels. We will look at developing Government funding bids for cycling and walking continuing the work started through Cycling City. Similarly there is a need for significant investment in public realm and walking routes to ensure that

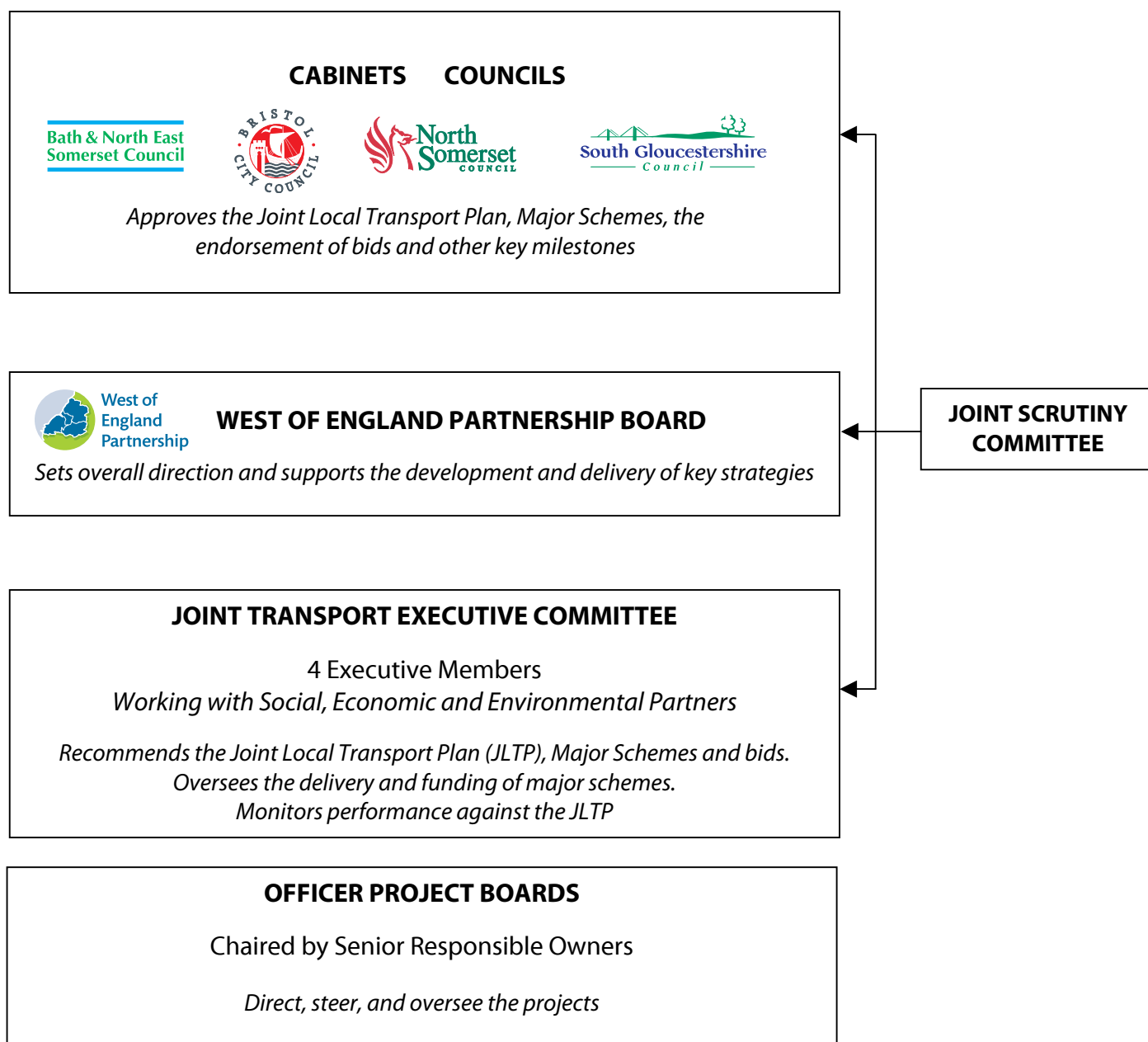
streetscapes are opened up to people to enjoy with the associated health and transport benefits as demonstrated in Chapter 9 Quality of Life.

11.4 Governance and Project Management

11.4.1 One of the challenges in developing the Greater Bristol Bus Network (GBBN)

scheme was the need to establish robust joint governance arrangements. A major step forward in this regard came in April 2009 when the Joint Transport Executive Committee (JTEC) was established which comprised the four Executive Members with responsibility for transport. Amongst other functions, a key role of the Joint Committee is overseeing the major schemes programme. The major

Figure 11.2: Major Transport Scheme Governance



schemes governance arrangements are shown in Figure 11.2. The JTEC receive quarterly reports on progress with the major schemes development process and endorse key steps such as the submission of bids or decisions to apply for necessary powers required to implement schemes.

- 11.4.2 The Project Boards, made up of senior officers, guide and steer the direction of projects, preparing the Project Initiation Documents approved by the JTEC, authorising strategic decisions, and where appropriate referring key decisions to the JTEC. A Senior Responsible Owner acts as the lead officer and ensures the project progresses in line with the Project Plan.

11.5 Monitoring and Performance Management

- 11.5.1 Given the importance of the major schemes programme and its financial value there is a clear need for robust monitoring, performance management and assurance arrangements. A West of England project management framework has been created. This arrangement provides high-level reports for each project including progress against key milestones, budget movement and information on risks. These are reported quarterly to JTEC and six monthly to the West of England Partnership Board.
- 11.5.2 In addition at the individual scheme level one member of the Project Board is allocated the responsibility for Quality Assurance. This ensures quality is built into each major scheme.



11.6 Engagement and Communications

- 11.6.1 Public engagement and communications plays a vital role in gaining acceptance for the individual major schemes. We want to ensure that partners and the public are aware of the interlinking nature of the transport schemes programme, and their relationship with other council projects and initiatives. To reinforce this interrelationship all the major schemes use the Travel+ (www.travelplus.org.uk) branding in any public engagement.
- 11.6.2 GBBN is the first major scheme to jointly use the Travel+ branding including on newsletters, consultation material and bus shelters. As the scheme progresses towards completion each of the corridors will be launched in turn with all communications using the Travel+ branding. Once all corridors are completed a 'big bang' of communications activity will follow to raise the profile of the works which will in turn further raise the profile of Travel+.

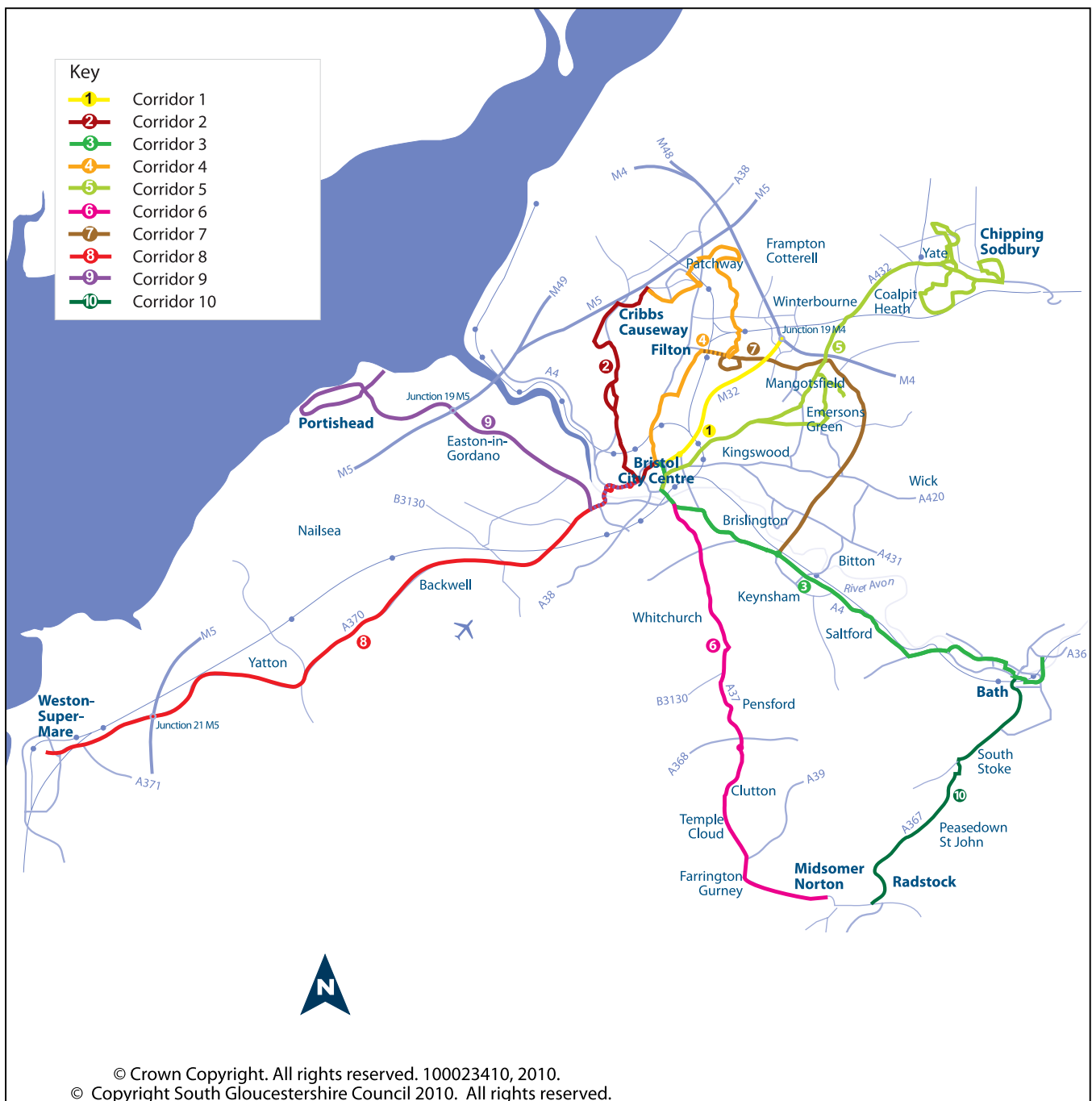
11.7 The Major Schemes Programme

Greater Bristol Bus Network

11.7.1 The Greater Bristol Bus Network includes an integrated package of measures aimed at improving the

attractiveness of bus travel. The £70m scheme is funded by Government (£42.34m), together with £20m investment in new buses by First and contributions from developers and the local authorities.

Figure 11.3 : Greater Bristol Bus Network



11.7.2 GBBN is bringing improvements to the local bus network on the area's most congested roads, resulting in shorter travelling times and a more accessible and reliable public transport system. These improvements will complement existing 'showcase' bus routes on the A38 and A420, and proposed bus network improvements in Bath and Weston-super-Mare. Measures implemented will seek to benefit cyclists and pedestrians as well as bus users, and linkages have been made with schemes being implemented as part of the Bristol and South Gloucestershire Cycling City programme.

11.7.3 The GBBN's 10 corridors are shown in Figure 11.3. Improvements include:

- Bus priority measures reducing the impact of traffic congestion on bus travel times and reliability without having an adverse effect on travel conditions for other road users;
- New fully accessible low-floor buses on the core routes serving the GBBN corridors;
- The provision of improved service frequencies and new bus routes, where demand potential is at its greatest;
- Significantly improved passenger facilities at bus stops, including new shelters, raised kerbs and, at the most heavily used stops, Real Time Passenger Information.

11.7.4 The scheme received Full Approval from Government in May 2008 and is currently being implemented. By the end of 2012 we will have delivered:

- 8.6 km of new bus or priority lane;
- 120 new low floor, lower emission buses;

- Real time information at over 300 bus stops;
- 944 new bus stops with improved facilities such as raised kerbs and shelters;
- 22 junctions with bus priority signals.

Development Pool Schemes

Bath Transportation Package

11.7.5 The Bath Transportation Package is designed to support economic regeneration at Western Riverside and tackle congestion in Bath and the surrounding area by improving public transport and enhancing pedestrian access for the benefit of residents, commuters and visitors. The scheme includes new and expanded Park & Ride sites, a Bus Rapid Transit route, nine Showcase bus routes, driver information and a more pedestrian and cyclist-friendly City Centre.

11.7.6 An initial bid for the Bath Transportation Package was submitted in July 2006 and the scheme was awarded Programme Entry status in October 2007. Since this time work has been undertaken to secure the necessary planning and other consents to secure land needed for the scheme outside of the Council's ownership. This process has been supported by public consultation helping to refine the scheme.

11.7.7 The project will deliver:

- A reduction in the number of cars entering the city by 1.5 million a year;
- A reduction of 5 million kilometres in car travel undertaken within the city each year;

- An increase in public transport journeys by 2.2 million per annum;
- Savings of 1,500, 10.9 and 2.1 tonnes of CO₂, CO and NO_x respectively per annum.

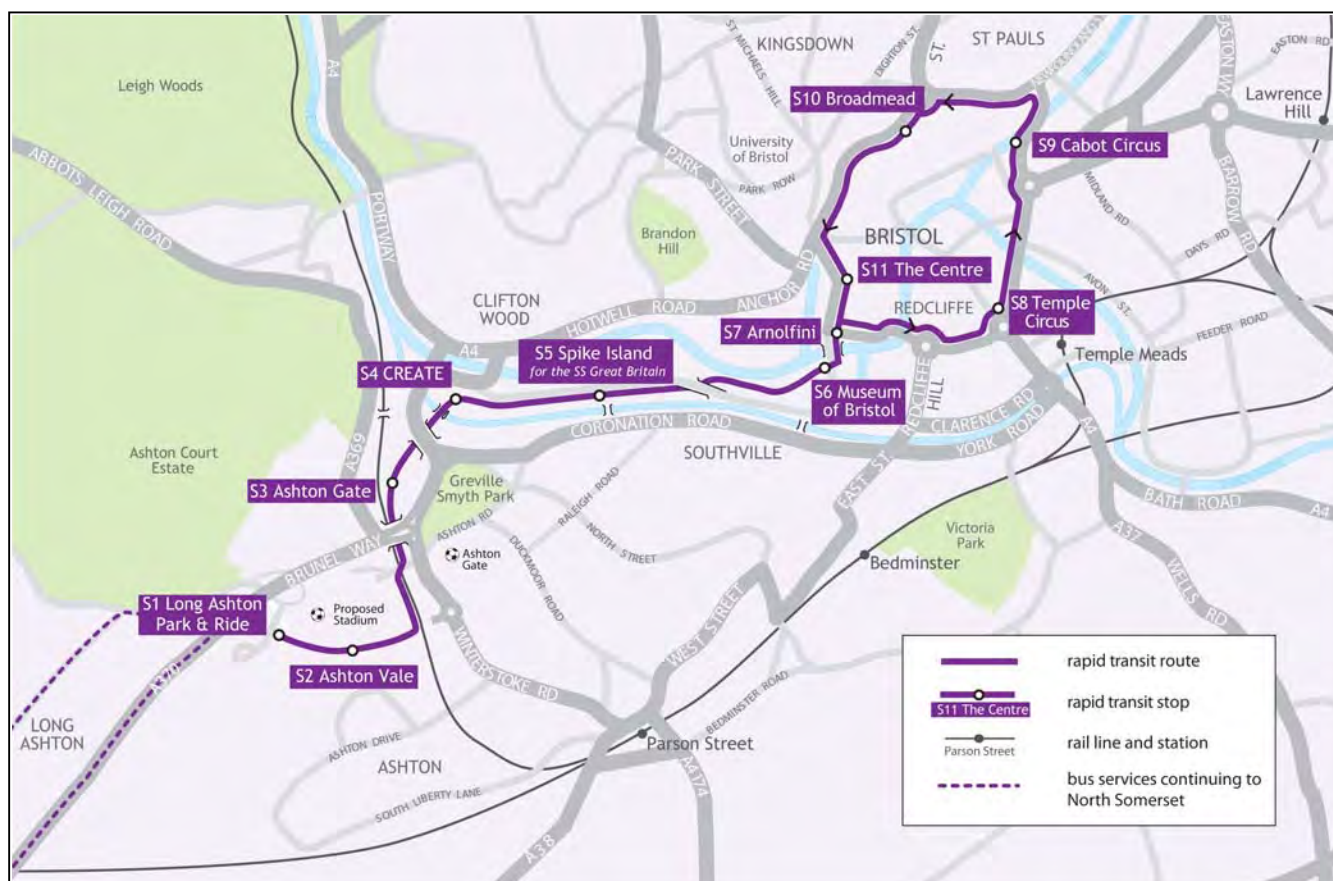
Ashton Vale to Temple Meads Rapid Transit

11.7.8 GBSTS recommended a package of measures to support the sustainable growth of the area. One of these is the development of a Rapid Transit Network (see Figure 11.1) with the aim being “to provide high quality alternatives to the private car”.

11.7.9 The Ashton Vale to Temple Meads and Bristol City Centre Rapid Transit will provide a fast, frequent and reliable

public transport service (see Figure 11.4). Services will run on a largely segregated route, separate from car traffic, and will be given priority over other road users at traffic signals. There will be a set of core services running frequently from Long Ashton Park and Ride to Bristol Temple Meads and on to Cabot Circus, Broadmead and the Centre (running in an anti-clockwise loop around the city). Additional services will make use of the Rapid Transit alignment to provide faster journey times and improved reliability for services to North Somerset (Weston-super-Mare, Clevedon and Nailsea). Rapid Transit will provide a high quality passenger experience – ticket machines at stops, user-friendly electronic information displays, high quality stop design and safe and secure access to stops.

Figure 11.4 : Ashton Vale to Bristol Temple Meads



11.7.10 The route between the Museum of Bristol and Long Ashton Park and Ride will include a parallel cycling and pedestrian route linking in to existing networks thereby providing a further sustainable transport option.

11.7.11 Services will be run using modern, accessible, comfortable, low-emission vehicles that provide the quality and feel of a high quality metro style system. The vehicles would offer considerable environmental improvements with lower noise levels, fewer greenhouse gas emissions and less harmful local pollutants. Access to the Rapid Transit route will be open to operators meeting quality thresholds which will govern vehicle and service standards.

11.7.12 A bid for the Ashton Vale to Temple Meads via Bristol City Centre Rapid Transit scheme was made to Government in March 2009. Programme Entry was awarded in March 2010. The authorities have been continuing to progress the necessary powers to build and operate the scheme through a Transport and Works Act Order (TWAO).

Weston Package Phase 1

11.7.13 The objectives of the Weston Package (see Figure 11.5) are to:

- Improve the highway access between the M5 motorway and Weston to reduce congestion;
- Relieve congestion on the A370 corridor in Weston;
- Provide improvements to local access, safety, public transport, walking and cycling; and

- Improve access between regeneration areas and other residential areas of the town.

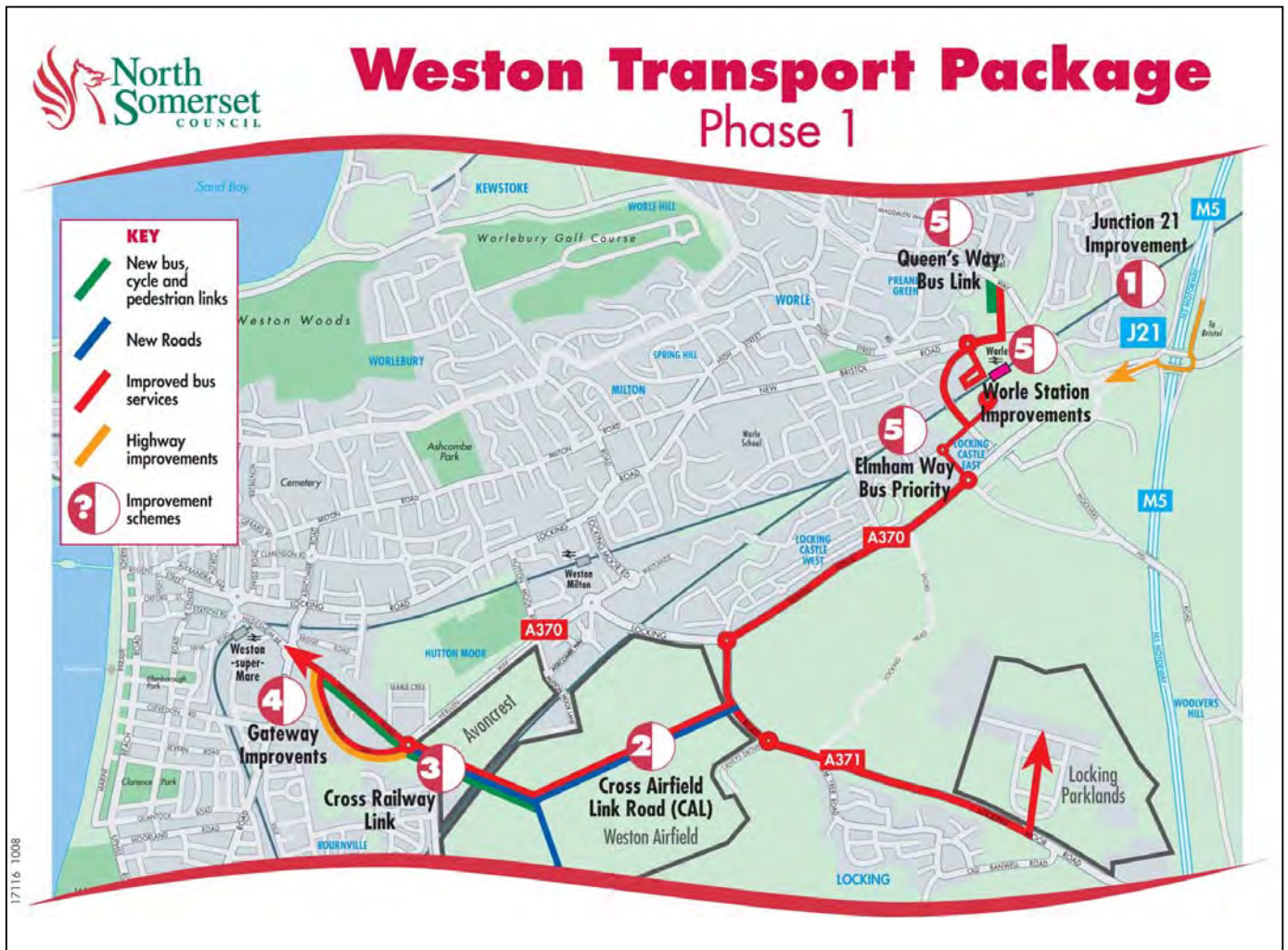
11.7.14 A bid for this scheme was submitted to DfT in April 2009. Due to the impact of the recession on development in Weston, the submitted bid sought Programme Entry for the scheme components contained in the 'Low Cost Option', namely:

- M5 Junction 21 Improvements - to improve journey time reliability and safety for both Weston and strategic traffic;
- Gateway Area Improvements on the A370;
- A transport interchange at Worle station including
 - a new 320 space car park,
 - bus interchange on both sides of the station,
 - extended and/or new bus services to the station,
 - measures to improve bus service reliability (bus priority measures along Elmham Way and a new bus only link to Queensway),
 - improved facilities for cyclists and pedestrians.

11.7.15 The Weston Package received Programme Entry in March 2010. This scheme is piloting a new approach (termed 'decoupling') whereby certain elements of a scheme are brought forward in advance of other components which are reliant upon funding through development.

11.7.16 The remaining components in the Weston Package Phase 1 'Preferred

Figure 11.5 : Weston Transport Package Phase 1



Scheme', namely the Airfield Bridge Link and the Cross Airfield Link are reliant on developer contributions, which are delayed due to the impact of the recession. When the necessary third party funding is secured, a timescale will be set out to progress the Airfield Bridge and Cross Airfield Links.

Pre-Qualification Pool Schemes

South Bristol Link

11.7.17 The objectives of the South Bristol Link (SBL) are to:

- Facilitate regeneration and growth in South Bristol;

- Reduce congestion in South Bristol and adjacent areas of North Somerset;
- Improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol Airport.

11.7.18 Building on GBSTS, development work on the South Bristol Link has included the assessment of a wide range of options to link the A370 near Long Ashton Park and Ride to the A4174 Hartcliffe roundabout, a distance of approximately 3 miles. This process has been informed by several periods of public consultation.

11.7.19 This process identified a preferred scheme (shown in Figure 11.6) which best met objectives and other DfT criteria for which a bid for Programme Entry was submitted to Government in March 2010. The scheme combines road and Rapid Transit, with adjacent segregated pedestrian and cycle routes, on an alignment close to and within the existing urban area which has been reserved for many years. The Rapid Transit elements of the scheme would be fully integrated with those for the Ashton Vale to Temple Meads and North Fringe to Hengrove routes, and be procured on a similar basis to that being pioneered by the Ashton Vale project.

North Fringe to Hengrove Package

11.7.20 The North Fringe to Hengrove Package is composed of a set of inter-related transport schemes building on the findings of GBSTS and the Joint Local Transport Plan 2006 - 2011. It includes Rapid Transit routes to the North Fringe, Hengrove and Emerson's Green, a Park and Ride site alongside the M32 and the Stoke Gifford Transport Link (see Figure 11.7). The Package is designed to facilitate a significant shift from the private car onto more sustainable modes to tackle congestion, improve air quality, facilitate sustainable development and meet national and local goals and objectives for economic development, health, accessibility and quality of life.

Figure 11.6 : South Bristol Link

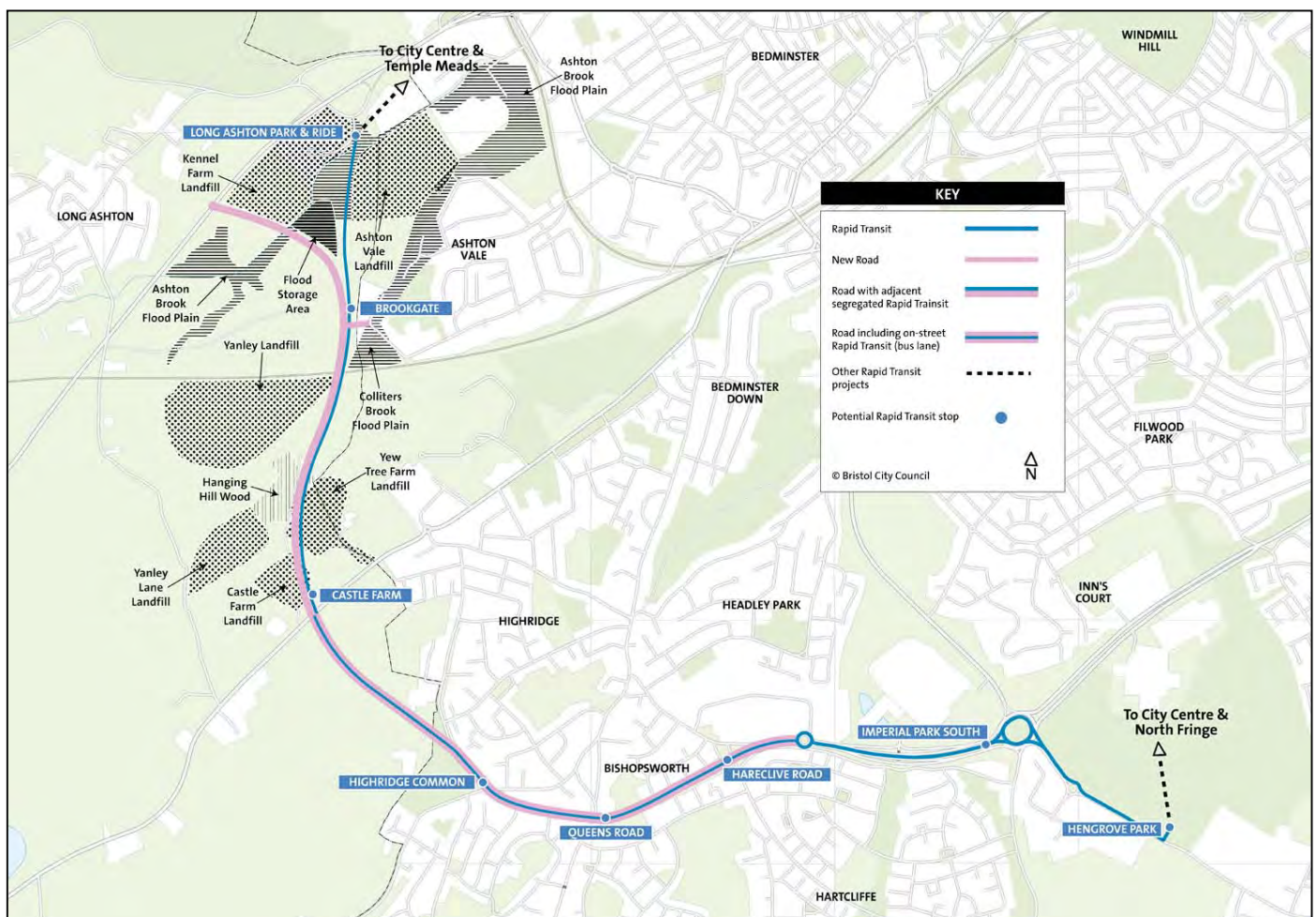
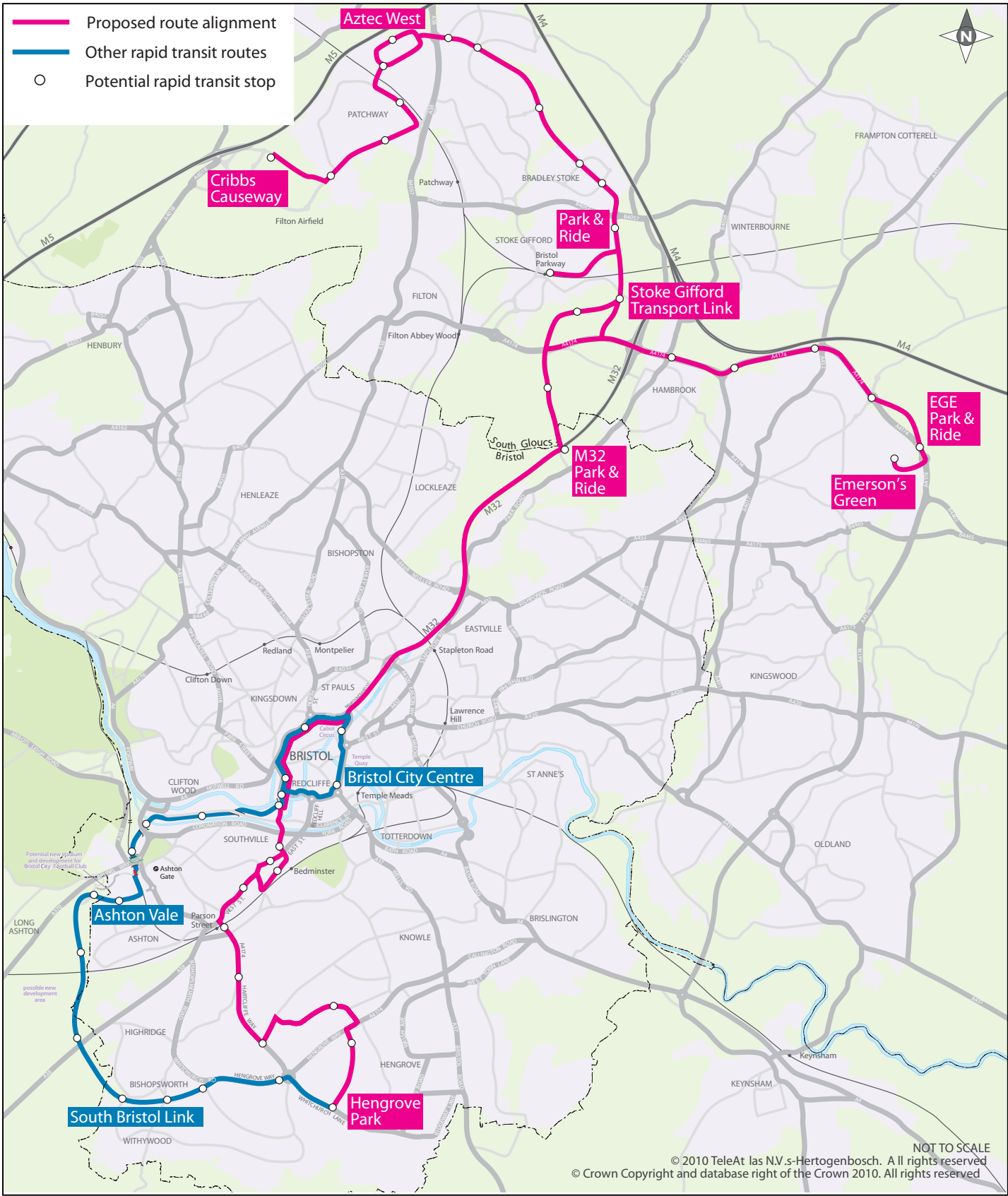


Figure 11.7 : North Fringe to Hengrove Package



11.7.21 As well as placing an emphasis on segregation from general traffic where possible, the Rapid Transit routes will also be served by new, high profile articulated vehicles with high quality, accessible interchanges and clear information/marketing, to maximise patronage and mode shift from the private car.

11.7.22 The development of the package has been supported by both stakeholder engagement and widespread public consultation, branded under the Travel+ marketing logo. The consultation was undertaken in December 2009 including the circulation of 70,000 postcards to residents along the routes in the package, a range of public exhibitions, leaflets and questionnaires, public meetings and media and web-based material. A bid for Programme Entry for the scheme was submitted to Government in March 2010.

Other Schemes

Portishead Rail Corridor

11.7.23 Portishead (see Figure 11.1) has seen significant residential development in the last decade. In consequence, there are now significant levels of out-commuting to Bristol, especially by car via the A369 and M5 Junction 19, resulting in peak period congestion on both strategic and local highways. This has placed increased pressure on transport infrastructure which is exacerbated by a lack of alternative route choice and the limitations of the current public transport service. Consequently major traffic incidents on either the A369 or M5 regularly cause major down-stream effects in terms of

traffic disruption and irregular travel times. In summary the Portishead to Bristol transport corridor is characterised as having poor network resilience.

11.7.24 North Somerset Council recently completed the purchase of a 3 mile section of the disused line (the remainder is operational freight railway). Building on previous work and studies, Network Rail have undertaken a Guide to Railway Investment Projects (GRIP) stage 3 option selection report, which assesses the engineering requirements of the project. Work to date indicates that significant engineering work is required to both the existing freight line and the disused section of line in order to bring the whole line up to passenger train operating standards.

M5 Junction 21 Bypass

11.7.25 Weston-super-Mare has seen significant residential development in the last decade, but has suffered the loss of employment opportunities. In consequence, there are now significant levels of out-commuting to Bristol, mainly by car via the A370 and M5 Junction 21, resulting in peak period congestion. Whilst North Somerset Council has sought to encourage businesses into the town through employment land allocations, this has been hindered by inadequate transport links.

11.7.26 The Weston Package major scheme will provide a series of improvements to transport links both within the town and at Junction 21. Further improvements, however, to links



between Weston and the wider area are required to support the Weston urban villages proposed in the draft Core Strategy. The Junction 21 Bypass, which separates traffic using the A370 from M5 Junction 21, would provide one of the improvements required.

Greater Bristol Metro

11.7.27 The West of England area has witnessed substantial growth in rail travel with passengers increasing by 56% over the last five years. Existing services have suffered from short formed trains leading to overcrowding and passengers left behind on stations.

11.7.28 The Greater Bristol Metro Rail Project would provide:

- Enhanced half hourly clock face cross Bristol train services on Yate to Weston-super-Mare and Cardiff to Westbury (supported by Wiltshire Council) via Bath and Bristol corridors (see Figure 11.1);
- New high capacity rolling stock – faster acceleration, more economical, multiple doors. This is additional rolling stock and it is not to replace existing units;

- New infrastructure including Weston-super-Mare bay platform and Yate turn back to enable trains to turn around with CCTV and Disability Discrimination Act requirements built in.

11.7.29 The Great Western Route Utilisation Strategy (RUS, March 2010) tested enhancing cross Bristol train services identifying issues around the business case for the proposals. Proposals for Bristol to Bath services performed well as did Bristol to Yate subject to third party funding. The case for Bristol to Weston-super-Mare services was weak. Along with the implications of electrifying the Great Western Main Line to Bristol, with the possibility of electrified suburban services, we will review the scope of the Greater Bristol Metro scheme.

Emerson's Green to Temple Meads Rapid Transit

11.7.30 Building upon the Ashton Vale to Temple Meads route this scheme would provide another link in the Rapid Transit network providing a fast, frequent, reliable public transport system using modern, accessible, comfortable vehicles and high quality passenger facilities. Services will run on segregated corridors where possible and on highway with segregated bus lanes and priority at junctions in Bristol City Centre, and serve a new Park and Ride site delivered as part of the North Fringe to Hengrove Package.

11.7.31 The route will serve the eastern urban area, assisting with regeneration. It also serves significant new housing and employment areas including development at Temple Quay, Cabot Circus, development in East Bristol and

Emerson's Green East and the Science Park development.

Callington Road Link/Bath Road Improvements

- 11.7.32 Existing congestion on the Bath Road and in south Bristol will increase with proposed new development unless transport infrastructure is enhanced. The Greater Bristol Strategic Transport Study (GBSTS) recommended, that this scheme be given further consideration.
- 11.7.33 South Bristol contains large areas of unemployment and deprivation. Callington Road Link / Bath Road Improvements will improve access by all modes and enhance employment opportunities, by improving access to jobs and potentially encouraging new business into the area.
- 11.7.34 Road and non-road options are being considered for the disused railway line between the A4174 Callington Road and the south end of the A4320 St Philips Causeway. The beneficial impact of this new transport link would be enhanced by complementary improvements to adjoining roads. On the Bath Road and Callington Road the scheme involves widening to create additional lanes on certain sections and junction improvements.

11.8 Funding Opportunities and Options

- 11.8.1 The majority of this chapter focuses on funding available from central government through the major schemes process. Whilst it is recognised that we need to maximise available investment from this funding source there will be an increasing need

throughout the delivery of JLTP3 to secure funding from other sources, including our partners.

- 11.8.2 We have been successful with one-off awards of funding, most notably with the £22m Cycling City programme due for completion in March 2011. It will be vital to ensure that the good work and initial growth and mode shift from such interventions is maintained from the start of the JLTP3 plan period onwards.
- 11.8.3 Opportunities through the Local Enterprise Partnership, developer funding, prudential borrowing, Regional Growth Fund, Local Sustainable Transport Fund, Community Infrastructure Levy and Tax Increment Financing need to be exploited to ensure transport investment is provided to achieve the wider outcomes of the plan.
- 11.8.4 Whilst it is recognised that there is no simple 'off the shelf' solution to securing additional funding we remain committed to working together and with other partners to try and ensure the strongest chance of increasing transport investment.

11.9 Future ideas to 2026

- 11.9.1 Through the ongoing development of Core Strategies and wider visioning works it is recognised that there will be further schemes to develop through the life of the JLTP3 (see Box 11a). It should be acknowledged that at the funding levels emerging from the Comprehensive Spending Review , opportunities to bring forward these schemes through the major schemes process in the period to 2026 appear significantly constrained. New or other

existing funding sources will continue to be developed. As the Core Strategies develop the list of schemes may alter.

Box 11a: Plans and Aspirations for other Significant Transport Schemes

- Further Rapid Transit routes in the main urban centres of Bath, Bristol and Weston-super-Mare;
- Further Park and Ride schemes;
- Further rail enhancements (with Network Rail and train operators) for example re-opening the Radstock to Frome line and the Henbury loop;
- Improvements at M5 Junction 19;
- Cycling and walking major scheme;
- Banwell Bypass;
- Second Avon Crossing (possible Highways Agency scheme);
- A38 - A370 Barrow Gurney Bypass;
- Whitchurch Bypass
- Saltford Bypass;
- Yate Package;
- A4174 Avon Ring Road Package;
- Temple Cloud/Clutton Bypass;
- Infrastructure to support Weston-super-Mare new villages;
- Investigation of additional transport links including a new road link between the M5 and South Bristol, A36/A46 link and M4 link.

Find out more

-  Comprehensive Spending Review, 2010
-  Core Strategies of Bath and North East Somerset, Bristol City, North Somerset and South Gloucestershire Councils
-  Greater Bristol Strategic Transport Study, 2006
-  Joint Local Transport Plan 2006 to 2011

Summary

- Range of locally based indicators and targets;
- Contribution to five key transport goals;
- Realistic but challenging targets;
- Robust monitoring framework;
- Management and mitigation of risks.

12.1 Background

- 12.1.1 Targets and indicators play a key role in the Joint Local Transport Plan 3 (JLTP3). They are designed to measure and monitor our progress towards meeting the JLTP3's objectives, highlight where we are doing well and show where we need to do better. Indicators need to strike the right balance between being realistic but challenging, comprehensive but practical to collect, analyse and report.
- 12.1.2 Our indicators will need to reflect local priorities as identified in our Core Strategies, Sustainable Community Strategies and Corporate Plans covering sustainable economic growth, housing and social inclusion, health and well-being. Transport indicators will form part of a wider performance framework for the Local Enterprise Partnership.
- 12.1.3 A suitable target may in due course accompany each indicator. Future targets will take account of the funding available following the Government's Comprehensive Spending Review October 2010. It should be noted that cuts of 25% to the Integrated Transport Block in 2010/11 will impact on our ability to meet existing JLTP 2006 to 2011 targets let alone new ones.

12.2 Developing indicators

- 12.2.1 A range of possible JLTP3 indicators and how they would monitor progress on the five key transport goals is set out in Table 12.1.
- 12.2.2 We will consider setting five year targets for some of these indicators. This will give us the flexibility to amend targets at the end of each five year period in order to support the 15 year JLTP3 strategy. Targets will have trajectories with interim milestones and there will be a full mid-term review at three years in order to inform the next three year Delivery Plan (see Chapter 10).
- 12.2.3 The targets and indicators for the JLTP3 must be realistic but challenging. Targets will be set with evidence drawn from modelling, historical trends, local experience from the JLTP 2006 to 2011 and an evaluation of the impact of the proposed interventions.
- 12.2.4 Targets will be confirmed in 2011. If funding continues to be constrained in future years the targets may need to be revised.



Table 12.1: JLTP3 Indicators for key transport goals

Possible Indicator	Carbon	Economic Growth	Accessibility	Safety, Health, Security	Quality of life
Road safety - people killed or seriously injured in road traffic accidents				✓	✓
Congestion – average AM peak journey time per mile	✓	✓			✓
Maintenance – roads (principal and non-principal) where maintenance should be considered		✓			
Accessibility – access to services and facilities by public transport, cycling and walking		✓	✓		✓
Bus patronage		✓	✓	✓	
CO ₂ emissions - from road transport	✓	✓		✓	✓
Air quality - measurement of Nitrogen Dioxide (NO ₂) in AQMAs		✓		✓	✓
Number of cycling trips	✓	✓		✓	✓
Walking	✓	✓		✓	✓
Rail passenger numbers	✓	✓			
Travel to school		✓		✓	

12.3 Monitoring indicators

12.3.1 It is important to have a robust, reliable and affordable method of monitoring progress against all indicators. This helps to ensure transparency and comparability at a cost that local authorities can sustain.

12.3.2 Robust monitoring procedures will be put in place using established baseline data. We will publish an annual monitoring report. A mid-term review will inform the Delivery Plan. Targets will be fully reviewed and updated for the following two five year periods of the plan.



12.4 Risks associated with meeting targets

12.4.1 Risks could hinder our progress towards targets and we need ways to avoid or mitigate them. The main risks are those outside the direct control of local authorities although there are also significant internal risks that authorities can influence.



12.4.2 Potential risks include:

- Yearly figures fluctuating due to small figures (in absolute terms) for example the number of children killed and seriously injured in road accidents;
- Reduced funding affecting the ability to meet targets;
- Bus and rail fares increase faster than the cost of motoring;
- Escalating costs reduce the number of deliverable schemes within budget constraints;
- Extreme weather conditions cause road surfaces to deteriorate at a quicker pace;
- Increasing cost of bus service provision prohibit the expansion of services;
- Major transport schemes delayed or not implemented;
- Lack of investment in rail.



13. Conclusion

- 13.1 The West of England, like the rest of the country, faces challenging times and never more so than in relation to funding.
- 13.2 Yet the Joint Local Transport Plan 3 (JLTP3) puts our four councils in a strong position. It is a joint plan. Collectively it gives us greater influence locally and nationally. It is built upon the knowledge and experiences gained though our JLTP 2006 to 2011 and our first LTPs.
- 13.3 The plan has a clear vision. The vision is supported by the five goals. It has a strong focus on supporting economic growth whilst reducing carbon emissions and promoting quality of life and the natural environment.
- 13.4 It has been developed in association with our partners. Not just those in the transport field, such as the Highways Agency, but partners in the health and business communities. Extensive engagement has encouraged interest groups and the public to influence and shape the final plan. Supporting economic growth, carbon reduction and focusing investment on public transport came out very strongly.
- 13.5 As the plan has evolved it has undergone a Strategic Environmental Assessment. This ensures it has a positive effect on human health and avoids or mitigates against any impact on natural habitats.
- 13.6 The plan recognises the key role transport has to play in reducing our carbon footprint. That is why it contains the principal focus on facilitating and promoting more sustainable forms of travel such as public transport and especially buses, cycling and walking.
- 13.7 Now a Local Enterprise Partnership for the West of England has been confirmed the JLTP3 will have a key role to play developing a transport system which meets the needs of a growing, prosperous area.
- 13.8 Equally the plan recognises the role transport has to play in assisting regeneration of deprived and derelict areas and enhancing our quality of life by facilitating access to health care, employment and other local services. Improving road safety and air quality and encouraging active travel feature strongly whilst recognising that for many the car will continue to provide high levels of personal mobility.
- 13.9 The plan has been developed in parallel to the emerging Core Strategies with the major transport schemes supporting their land use policies.
- 13.10 We will have a Delivery Plan setting out how funding will be spent and indicators and targets to monitor our progress. At this point in time these are missing because we await confirmation of funding available to implement the JLTP3. In fast changing times we will keep the plan up to date throughout its life.
- 13.11 Ultimately we want an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.

Accession mapping	Computer software used for mapping public transport access to key services and facilities
Acquisitive crime	Crime where items are stolen or acquired fraudulently, including vehicle crime as well as theft, burglary and fraud
Active Bristol	5-year programme between Bristol City Council and the local Primary Care Trust to promote sustainable and healthy travel
Active for Life	Brand used in South Gloucestershire for promoting physical activity
Airport Surface Access Strategy	Strategy for Bristol Airport setting out short and long term targets for decreasing the proportion of journeys to the airport by car and increasing the proportion by public transport for both air passengers and workers
Air Quality Action Plans	Plans drawn up by the councils to tackle air pollution in Air Quality Management Areas
Air Quality Management Areas	Areas assessed by the councils under the Environment Act 1995 as needing attention because of poor air quality
AONB	Areas of Outstanding Natural Beauty
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
Asset management	Looking after roads, footways, cycle ways, bridges, streetlights and other transport infrastructure
Behavioural change	Switching from travel by car to more sustainable modes of transport
Bristol Health Service Plan	Wide ranging scheme drawn up by a partnership of NHS organisations to modernise and improve health services in Bristol, South Gloucestershire and North Somerset ranging from primary and health community care to hospital services
Bristol Traffic Control Centre	Opened by Bristol City Council in 2008 the centre is linked by computer to the city's traffic lights so that they can be adjusted to reduce congestion
Buddy Scheme	Befriending project that matches volunteers with adults with learning difficulties so they can enjoy their social time and leisure activities
Bus gate	Control over specified section of road limiting access to buses and other authorised vehicles
Carbon Pathways	Ways that greenhouse gases are emitted through different modes of transport and different types of journey

Car club	A club that gives people the choice of a fleet of vehicles parked in their neighbourhood and access to a car whenever they need it but without the high fixed costs of individual car ownership.
Car mode share	Proportion of travel undertaken by car
CIVITAS	City-VITALity-Sustainability, a European Commission initiative helping cities, including Bath, to achieve a more sustainable, clean and energy efficient urban transport system by implementing and evaluating a range of transport technologies and policies
Community Infrastructure Levy	Charge on new development to fund infrastructure in a local authority area
Comprehensive Spending Review	Review of Government spending announced in October 2010 setting out budgets for the Department for Transport and other departments for the four years 2011/12 to 2014/15
Congestion Delivery Plan.	Plan prepared by the councils and agreed by the Department for Transport in 2007 for tackling congestion on the key highway network in the Greater Bristol urban area
Core City	Bristol is part of the Core City group of England's major regional cities. Joint activity focuses on economic development
Core Strategies	Part of each council's Local Development Framework that sets out a vision, strategic objectives and location of principal development, taking into account a wide range of environmental, social and economic considerations
Cycling City	Status awarded to Greater Bristol by the Department for Transport in June 2008 providing funding for a range of measures and schemes to encourage cycling
DaSTS	'Delivering a Sustainable Transport System', the national strategy for transport published in November 2008
Decarbonising	Reducing the emission of greenhouse gases
DEFRA	Department for the Environment, Food and Rural Affairs
Delivery Plan	The separate document setting out the schemes and measures programmed for implementation by the councils in the 3-year period 2012/13 to 2014/15. An interim one year plan will cover 2011/12
Demand Management	Measures to influence the demand from drivers for use of the road network
Demand responsive services	Services that provide transport "on demand" from passengers using vehicles, including buses, mini-buses and taxis, to pick up and drop off people in accordance with their needs

DCLG	Department for Communities and Local Government
DfT	Department for Transport
Dial-a-ride	Door-to-door, fully accessible transport services to disabled and older people who are unable to use public transport because of mobility or communication impairments
Digital Action Plan	Plan to deliver digital infrastructure to link everyone's home into the web and help business to flourish
Digital Economy Hub	Partnership between higher education, industry, local authorities and the community to make it easier for people to access digital infrastructure
Digital Infrastructure	Providing skills and resources and access to broadband and the web
Eco-driving	Driving in a more fuel efficient way that reduces polluting emissions, e.g. accelerating and braking less strongly
Environment Agency	Public Body responsible to the Secretary of State for Environment, Food and Rural Affairs for protecting and improving the environment, protecting communities from the risk of flooding and managing water resources
Environmental Impact Assessment	Assessment required by the European Union for ensuring that the likely effects of new development, including transport schemes, on the environment are fully understood and taken into account before the go ahead is given
Environmental Report	Report required as part of the EU Strategic Environmental Assessment process to describe the likely significant effects on the environment of implementing the JLT3 and reasonable alternatives and to outline measures to offset any adverse effects
Equalities Impact Assessment	Legal requirement for councils to assess the impact of transport policies and schemes in relation to race, disability and gender
EqIA	Equalities Impact Assessment
EU	European Union
Euro 4	European Union standard for exhaust emissions from new vehicles. Introduced for cars and light commercial vehicles in 2005 and 2006. A separate 'Euro IV' standard for lorries and buses was introduced in 2005
Euro 5	Tighter European Union standards than Euro 4 to further restrict emissions from cars and light commercial vehicles. Applied as of September 2009 for new models of cars and in January 2011 for all new cars. A separate 'Euro V' standard for lorries and buses was introduced in 2008
Freedom Travelpass	Ticket that you can buy from bus drivers, train conductors and at stations giving unlimited travel on most bus and all train services within the West of England for a day, week or month. The cost varies according to the time of day and the zone within which you travel

Freight consolidation	Facilities whereby deliveries to city centre premises, especially from lorries, can be transhipped or 'consolidated' for subsequent delivery in an appropriate vehicle with a high level of load utilisation
GBBN	Greater Bristol Bus Network major scheme
GOSW	Government Office for the South West
GBSTS	Greater Bristol Strategic Transport Study
Great Western Main Line	Network Rail's strategic line between London Paddington and the West of England and embracing other rail services that serve the area
GDP	Gross Domestic Product: in relation to the West of England the basic measure of overall economic output, the market value of all final goods and services made within the area in a year
Green Bus Fund	A Department for Transport fund which supports bus companies and local authorities to help them buy new low carbon buses. Its main purpose is to support and hasten the introduction of hundreds of low carbon buses.
Green infrastructure	Strategically planned and delivered networks of high quality green spaces and other environmental features including parks, open spaces, playing fields, woodlands, allotments and private gardens.
Group hire	Accessible minibuses provided by community-based voluntary organisations for hire by community groups for social, shopping and similar trips
Guide to Railway Investment Projects (GRIP)	Network Rail approach to managing investment schemes aimed at minimising and mitigating risks with delivering railway projects through different stages from inception to completion
Habitats Regulations Assessment	Legal requirement to assess the impact of the JLTP3 on existing and proposed sites of European conservation importance
Health Impact Assessment	Legal requirement to assess the impact of the JLTP3 on health and well-being, whether physical and/or mental health. Part of the SEA
HGV	Heavy Goods Vehicles
HIA	Health Impact Assessment
Highways Agency	An Executive Agency of the Department for Transport responsible for operating, maintaining and improving the strategic road network of motorways and trunk roads in England
HRA	Habitats Regulations Assessment
ICT	Information communication technology

Indices of Deprivation	Index created by the Department for Communities and Local Government for measuring deprivation in local areas based on income; employment; health and disability; education, skills and training; barriers to housing and services; living environment; and crime
Integrated Transport	Transport schemes other than those involving maintenance of roads, footways, bridges and other highway infrastructure. Schemes costing over £5million are defined as 'major sch
ITS	Intelligent Transport System which uses satellite location, mobile telephone and wireless network technologies to manage the road network and provide information for travellers.
JLTP	Joint Local Transport Plan
Joint Scrutiny	Joint Scrutiny Committee, made up of 3 councillors from each of the 4 councils, responsible for the overview and scrutiny of the actions of the West of England Partnership in relation to transport and its other functions
Joint Transport Forum	Forum organised at regular intervals by the West of England Partnership on behalf of the four councils to give stakeholders the opportunity to comment on strategic transport issues
JTEC	Joint Transport Executive Committee
JTAMP	Joint Transport Asset Management Plan
KSI	Killed or Seriously Injured
LAA	Local Area Agreement
LDF	Local Development Frameworks
LEP	Local Enterprise Partnership
LGV	Lights Goods Vehicle such as a van. Also used for Large Goods Vehicle, commonly known as HGVs or Heavy Goods Vehicles
Lifelong learning	Initiatives focused on widening participation in adult learning and raising standards and quality in adult and community education
Local Access Forums	Statutory bodies established by the councils to provide advice on the improvement of public access to land for open-air recreation and enjoyment of the area
Local Area Agreement	Set out the priorities for a council area agreed between the former Government, the individual council, Local Strategic Partnership, and other key partners
Local Development Frameworks	Replace former local plans and set out a vision, priorities, policies and programmes for future development in each council area. Made up a 'Core Strategy' supplemented by 'Development Plan Documents'

Local Enterprise Partnership	Partnership of business and the four councils in the West of England formed in 2010 to promote local economic growth. The Government sees such partnerships working with universities and further education colleges to tackle issues such as planning and housing, local transport and infrastructure priorities, employment and enterprise and the transition to the low carbon economy
Local Strategic Partnerships	A partnership for each council area that brings together different parts of the public sector as well as the private, business, community and voluntary sectors so that different initiatives and services support each other and work together
Local Sustainable Transport Fund	Challenge fund launched by the Department for Transport in 2010 open to bids from local transport authorities for packages of measures that support economic growth and reduce carbon in communities as well as delivering cleaner environments, improved safety and increased levels of physical activity
Low carbon choices	Forms of transport that emit only low amounts of greenhouse gases
Low Emission Zone	Area where access is limited to vehicle meeting minimum emissions standards
LPG	Liquefied Petroleum Gas
LSP	Local Strategic Partnership, a group of agencies or organisations in each council area from business, the public sector, community, voluntary sector, higher and further education
Maintenance	Keeping the condition of roads, footways, cycle ways and other transport infrastructure up to agreed standards
Major Schemes	Transport schemes costing more than £5m
Memorandum of Understanding	Document (MoU) between two or more parties setting out an agreed approach to issues of common concern. An MoU has been agreed between the councils and the Highways Agency; a second with Network Rail, First Great Western and other operators; and a third with the health sector
Multi Area Agreement	A public agreement between the former Government and the four councils, working together with local agencies to boost economic growth and tackle deprivation and financial inequalities
Multi-operator travelcard	An integrated ticketing system that is valid for travel on buses and train services run by different operators
Multiple deprivation	Areas experiencing a range of economic, social and housing problems
National Coastal Path	Path being promoted by Natural England under the Maritime and Coast Access Act 2009 to allow people the right to walk around the whole of the coast of England including part of the Severn Estuary

National Cycle Network	Network of walking and cycling routes across West of England and the rest of the UK initiated by Sustrans and comprising a mixture of quiet lanes, on-road routes and traffic-free paths.
National Play Strategy	Published in December 2008 by the then Department for Children, Schools and Families, the strategy sets out the Government's plans to improve and develop play facilities for children
Network management	Role of the councils as local highway authorities for managing the road network to ensure the optimum flow of traffic
Network resilience	Ability of the transport network to withstand the effects of abnormal traffic demands, adverse weather, accidents, security alerts and other risks
Next Generation Digital Infrastructure	Implementing super fast broadband across the country
Noise mapping	Maps prepared by DEFRA providing an overview of ambient noise levels in large urban areas and major transport sources in England intended to inform the production of noise action plans
Non-principal roads	Class 'B' and 'C' roads
North and East Fringe of Bristol	Parts of South Gloucestershire adjoining the Bristol urban area
Peak oil	The point in time when the maximum rate of global petroleum extraction is reached, after which the rate of production declines
Personalised Travel Planning	Techniques in which information is provided to individuals and households to enable them to choose a different pattern of travel behaviour, bringing benefits to them as well as reducing car use and/or increasing the use of more sustainable transport modes
Plugged-In Places	Department for Transport fund aimed at encouraging the establishment of electric vehicle recharging infrastructure
Positive activities	Activities for young people described in the national strategy 'Aiming High for Young People' (Department for Children, Schools and Families, 2007) including sport, cultural and recreational activities such as clubs, youth groups, classes
Powered two wheeler	Motorcycles, mopeds and scooters
Primary Care Trusts	NHS organisations that work with the councils and other agencies to provide a range of community health services, fund GPs and medical prescriptions and commission hospital and mental health services
Principal roads	Class 'A' roads

Priority Vehicle Lanes	Traffic lanes reserved at specified times for buses, taxis and other authorised vehicles
Programme Entry	Status given by the Department for Transport to major scheme bids once an initial business case has been approved
Project Board	Made up of senior officers who steer the direction of individual major schemes, authorise strategic decisions and refer, where necessary, key decisions to the Joint Transport Executive Committee
Project Initiation Document	Document that describes the purpose, objectives and arrangements for carrying out transport projects
Public Realm	Highways, footways and public spaces
Public Realm and Movement Strategy	A series of measures to address traffic movement within and around Bath city centre, establish a network of enhanced public spaces, remove clutter and provide attractive street furniture and signs
Public Rights of Way network	Public footpaths, public bridleways, restricted byways and byways open to all traffic as recorded on each council's definitive map and statement
Quality Partnership Schemes	Partnership between councils and bus operators under the Transport Acts 2000 and 2008 that can cover minimum frequencies, timings, vehicle standards, investment in infrastructure, service performance and maximum fares
Rapid Transit	High capacity, frequent and fast mode of public transport segregated as far as possible from general traffic
Real time information	Use of satellite technology to provide passengers with up-to-the-minute information about bus services via their computer, mobile phone or screens on bus shelters or elsewhere
RIEP	South West Regional Improvement and Efficiency Partnership helps councils and their partners to deliver better services, set through Local Area Agreements
Road hierarchy review	Examination of the classification of roads ('A', 'B' or 'C') to see if revisions are needed in the light of changes in land use or traffic
Route Utilisation Strategy	Strategy agreed by Network Rail in March 2010 that sets out a vision for the Great Western rail network up to and beyond 2019 balancing capacity, passenger and freight demand, operational performance and cost
ROWIP	Rights of Way Improvement Plans Countryside and Rights of Way Act 2000
RUS	Great Western Route Utilisation Strategy
SEA	Strategic Environmental Assessment

Secured Stations Accreditation	Scheme run by the DfT and the British Transport Police designed to improve and standardise good security practices at stations. To become an accredited Secure Station, each station operator needs to work with the local British Transport Police Crime Reduction Officer to ensure that their station meets the national standards on design and management to cut down crime
Senior Responsible Owner	Lead officer who chairs a major scheme Project Board and ensures the project progresses in line with the Project Plan
Single Conversation	Discussions between the councils, Homes and Communities Agency, South West Regional Development Agency and other regional agencies in 2009 and early 2010 on the infrastructure needed to support the development of mixed and sustainable communities and growth in jobs, housing, population and competitiveness
Skills and Competitiveness Board	Employer-led under the umbrella of the West of England Partnership which aims to represent and promote the views and interests of the area on skills, employment and competitiveness
Smart and Integrated Ticketing Strategy	National strategy published by the Department for Transport in December 2009
Smartcard	In relation to public transport a card on which the entitlement to travel, the 'ticket', is stored electronically on a microchip rather than on paper or cardboard
Smarter Choices	Techniques for influencing people's travel behaviour towards more sustainable options such as encouraging school, workplace and individualised travel planning
Social car schemes	Voluntary sector schemes involving drivers using their own cars to take needy people to medical and other essential appointments
Social enterprises	Businesses which operate for a social purpose, distinct from other businesses in that the majority of their profits is used to further social and/or environmental goals and distinct from more traditional charities or voluntary organisations in that they generate the majority, if not all, of their income through trading goods or services rather than donations
South West Councils	Former organisation of councils in the South West that provided a voice on major issues, influencing Government policy, encouraging partnership working and promoting good practice
SRO	Senior Responsible Owner
Strategic Environmental Assessment	European legal requirement to assess the impact of the JLTP3 on the environment and including human health

Streetscape	Design and layout of streets
Sustainable Community Strategies	Strategy drawn up by each Local Strategic Partnerships setting out a vision for the future of each council area and priorities for action
Sustainable Methods of Travel to School Surveys	Surveys undertaken by the four councils under the general duty placed on local authorities by the Education and Inspections Act 2006 to promote the use of sustainable travel and transport.
Sustainable urban drainage	System that replicates natural systems to collect, store and clean surface water run-off before release to a watercourse
SWRDA	South West Regional Development Agency
Tax Increment Finance	System that would give local authorities new powers to borrow against future growth in income from local business rates to fund transport and other infrastructure projects
Taxi Marshals	Council officers who vet potential passengers at busy taxi ranks in Bristol, ensuring orderly and fair queues during the evening and seeking to reduce anti-social behaviour
Transport and Works Act	1992 Act which gives powers for councils and others to construct and operate railways, tramways and similar transport schemes including compulsory powers to buy land and close or alter roads and footpaths
Transport Innovation Fund	Fund introduced by the Government in 2005 for strategic transport schemes aimed at tackling congestion through demand management and better public transport
Transport Plan Commission	Body representing a range of public, private and voluntary sector organisations advising the councils on transport issues and commenting on the JLTP3
Transport user priorities	Recommended priority to be given to different users in the design of new transport infrastructure according to the local circumstances
Travel awareness	People recognising the potential for using alternative modes of transport to the car for particular journeys
Travel plans	Plans made by employers, schools and others to promote use of sustainable transport rather than individual car journeys
Travel+	Brand being used by the councils to promote transport projects
Traveline	Partnership of transport operators and local authorities formed to provide impartial and comprehensive information about public transport by telephone and the internet

UK Low Carbon Transition Plan	National strategy for reducing greenhouse emissions published in July 2009
Unclassified roads	Roads that are not classed a 'A' , 'B' or 'C'
UTMC	Urban Traffic Management and Control
Variable Message Signs	Electronic or dynamic signs, also referred to as matrix signs, providing road users with information for example about accidents, congestion, roadworks, speed limits and car park space availability
Voluntary Partnership Agreements	Non- statutory scheme between councils and bus operators under the Transport Acts 2000 and 2008 that can cover frequency of services, levels of fare increases, vehicle standards and investment in infrastructure.
Vulnerable road users	Pedestrians, cyclists, children, young people, motorcyclists
West of England Partnership Board	Board providing the Partnership with strategic direction and made up of the Leaders and two other councillors from the four West of England councils together with seven Social, Economic and Environmental Partners and Observers from specific strategic organisations
Workplace Parking Levy	Scheme whereby councils can charge drivers for use of car parks at office and commercial premises of specified types and in specified locations to secure income to fund transport infrastructure or services
World Heritage Site	Status awarded ('inscribed') to Bath City by UNESCO in 1987 in recognition of its global significance in terms of its history, architecture, town planning and landscape setting



West of England Partnership

Bath & North East
Somerset Council



North
Somerset
COUNCIL

South Gloucestershire
Council